Participant Coding In Yagua Discourse

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Linguistics

by

Thomas Edward Payne

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1985
Dedicated to the memory of
the first daughter of Robinson of the Red Macaw Clan
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ABBREVIATIONS

1SG = First person singular
1DL = First person dual
1PLINC = First person plural inclusive
1PLEX = First person plural exclusive
2SG = Second person singular
2DL = Second person dual
2PL = Second person plural
3COL = Third person collective (same form as 3SG)
3SG = Third person singular
3DL = Third person dual
3PL = Third person plural
4 = Fourth person (1st paradigm only)
ANIM = Animate (specifies kinds of classifiers and nominalsers)
ANTIC = Anticipation
ARR1 = Arrival #1 (action takes place as subject arrives on current scene)
ARR2 = Arrival #2 (action takes place as subject arrives on new scene)
AUX = Auxiliary
CL = Classifier
COM = Comitative
COMPL = Completive
COND = Conditional
CONT = Continuative
COP = Copula
DAT = Dative
DAY = Discourse particle (see footnote 5 of chapter 2)
DEMO = Demonstrative
DEP = Departure (action occurs as subject departs)
DETRANS = Detransitivizer
DIM = Diminutive
DIR = Direction towards
DIST = Distributive
EVID = Evidential
EXCL = Exclamatory particle
FEM = Feminine
FRUST = Frustrative (auxiliary indicating action is unsuccessful)
HABIT = Habitual
HC = Head coding
INST = Instrumental
INTS = Intensifier
IMPRF = Imperfective
INAN = Inanimate
IRR = Irrealis auxiliary (also referred to as AUX:IRR)
IT = Iterative action (single location)
ITM = Iterative movement (locomotion implied)
JIITA  = Discourse particle (chapter 1, section 1.3.3)
LOC    = Locative (to, at, in)
MALF   = Malefactive auxiliary (also AUX:MALF)
MASC   = Masculine
NEG    = Negative
NEUT   = Neutral (marks classifiers and nominalizers)
NIY    = Semantically 'empty' morpheme
        (chapter 2, section 2.1.5)
NOM    = Nominalizer
NP     = Noun phrase
PART   = Participle (a kind of nominalizer which includes
        among its uses something like the participial
        uses of -ing in English)
PAST1  = 1st past tense (Action occurred a few weeks ago)
PAST2  = 2nd past tense ("         " a few months ago)
PAST3  = 3rd past tense (distant past)
PERF   = Perfective
PL     = Plural (rare nominal suffix)
POT    = Potential (desiderative and abolitative)
PNP    = Pre-predicate or pre-head noun phrase
Post-NP = Post-posed noun phrase
PPRO   = pre-predicate pronoun
PRO    = Pronoun
PROX1  = 1st degree of proximity (when attached to verbs
        indicates that action earlier in the day
        of speaking. When attached to other elements,
including predicate nominals, indicates action in a location close to the speaker.)

PROX2 = 2nd degree of proximity (on verbs indicates action occured a day or so ago, on other elements indicates action occured farther away from speaker.)

QF = Yes/no question particle

RD = Referential distance

REFL = Reflexive (second paradigm only)

REL = Relativizer

REP = Repetition (enclitic meaning 'again' or 'also')

SW = Sound word (ideophones, or onomatopoeic expressions)

TRNS = Transitivizer

VC = Verb coding
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and Dr. Paul Powlison, both of whom have read versions of this thesis ad nauseam. I thank them heartily for their input. As might be expected, there are points where my analysis differs from those of Doris and Paul, but I claim full responsibility for all errors that appear in this work.

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The University of Chicago Press is to be thanked for permission to use the English translation of Laureano Mozombite's version of the Twin's Cycle, which appeared in Dorson (1975). However, I have retranslated the tale from the Yagua, and so the version that appears in Dorson's work (which was contributed by Paul Powlison) is not identical to that which appears as appendix 4 of this thesis.

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ABSTRACT OF THE DISSERTATION

Participant Coding in Yagua Discourse

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Yagua is an Amerindian language currently spoken by about 3,000 individuals in the north-western Amazon basin, primarily in Perú. This dissertation has 2 goals: 1) to provide clear, and accurate descriptive data on one of the many relatively unstudied languages of the Amazon region, and 2) to test certain recent hypotheses concerning the functional factors that contribute to a speaker's choice of participant coding devices in discourse.

Chapters 2 and 3 constitute a pure descriptive study of the various participant coding devices available in Yagua. In chapter 4 a quantitative study of the use of participant coding devices in a body of folkloric texts is undertaken, and the results presented. This study confirms the general findings of much recent work on the use of anaphora in discourse, though certain problems are noted.
In chapter 5 individual deviations from the general findings of chapter 4 are discussed. It is found that there are 2 conditions under which attenuated coding devices can be used for relatively distantly-mentioned participants, and 7 conditions under which recently-mentioned participants can be coded with full noun phrases.

Chapter 6 investigates the discourse functions of morphosyntactically 'stative' intransitive verbs. A quantitative study reveals that 'stative' marking is dependent on the discourse-pragmatic notions of change in locational scene, unexpected action and episodic climax, rather than on semantic stativity.

Chapter 7 deals with the discourse functions of free pronouns. In Yagua, free pronouns are used for more recently mentioned participants than is 'verb agreement', even though the former is phonologically larger than the latter. This fact seems to violate the 'iconicity principle of topic continuity'. Closer examination of the textual data reveals that free pronouns are used in situations of selective contrast and when the topicality of a participant has not yet been fully established. In other words, the functional domain of free pronouns is independent of that of verb agreement.

Chapter 8 summarizes the findings of the study and suggests directions for future research. One major
conclusion of the study is that the two indices termed 'Referential Distance' and 'Persistence' do not quantify the same functional domain, as is assumed in much previous work. It is suggested that the functional domains coded by these indices are 'topic continuity' and 'deployability' respectively.
Figure 1: Distribution of Yagua communities (major non-Yagua communities are in italics)
1. Chapter 1: Introduction

1.1. Aims and organization of the thesis

This dissertation concerns Yagua, a lowland language of Perú. It also concerns the choices speakers make as to how they will refer to or 'code' participants in discourse. The body of this thesis will be organized into two broad parts corresponding to these two most general concerns. In the first part, consisting of chapters 2 and 3, I will describe the formal devices used to code participants in Yagua. This part will partially meet the need for accurate and useful descriptive data on Yagua, a relatively unstudied Amazonian language. In the second part, chapters 4 through 7, I will look at the use of a subset of those devices in a body of folkloric narrative texts. This part will examine and refine certain hypotheses emerging in the fields of discourse analysis and functional linguistics. I will take as starting point for the textual study the framework and methodology developed by Givón (1983a,b,c,d) for measuring topicality and ranking formal participant coding devices according to the topicality of the participants they code. Deviations from the general predictions of Givón's framework will then be examined in some detail. In chapter 4 the methodology will be outlined and the basic findings presented. In chapter 5 I will look at specific examples
that seem to violate claims made by the general theory of topic continuity. In chapter 6 I will examine the use of one particularly interesting clause type in terms of its function in discourse, and in chapter 7 I will discuss the discourse use of pre-predicate pronouns. Finally, in chapter 8 I will summarize the findings of the previous chapters and present some possible directions for further research. In the remainder of chapter 1, I will briefly introduce the reader to the Yaguas, and will review previous work relevant to the concerns of this study. I will also outline theoretical assumptions that underlie my work at every stage.

1.2. The Yagua people: demography and sociolinguistic context

Currently the Yagua live in some 30 communities scattered throughout a section of the Peruvian and Colombian Amazon basin which can roughly be described as a rectangle 200 miles wide and 350 miles long (70,000 sq. miles) extending southward from the second to the fifth parallel and westward from the seventyeth to the seventy-fifth meridian (Powlison, 1969) (see figure 1). As for present day population, I estimate that approximately three thousand people would identify themselves as Yaguas. Of these three thousand people, it is estimated that 75% of the women and 25% of the men are
monolingual in Yagua, the rest being bilingual in Spanish to varying degrees.

There are two possible etymologies for the term 'yagua', both of which originate outside of the Yagua language. First, the Quechua term yawar meaning 'blood' or 'the color of blood', is a likely possibility due to the Yagua custom of painting their faces with achiote, the blood red seeds of the annatto plant (bixa orellana). During the pre-conquest period, the Yaguas were undoubtedly in close contact with the Incas, as to this day there are far more Quechua (Inca) words in Yagua than there are Spanish words. The term in Quechua would have been something like yawar runa, 'the blood-red people', which could easily have been assimilated into Spanish as yagua. Second, the term yagua in Spanish means 'royal palm'. This term could have been applied to the Yaguas by the Spanish explorers due to the fact that much of the native clothing is made of palm fiber. Unfortunately, there is no data on whether a name resembling yagua was first used by the Quechus of the area or the Spanish, therefore there is no principled way to distinguish between these two possible etymologies. The only native term that might be thought of as a self-referent is nijyaamiy 'people.' This word is often used in contrast with mááy 'white people' and munukúmiy 'savages', 'enemies' or 'non-Yagua indians'. However, nijyaamiy is
also clearly the generic term for all human beings. Currently the term 'Yagua' is recognized by all Yaguas and is for all intents and purposes the contemporary self-referent.

The earliest documented European contact with the Yagua was probably made by the Spanish explorer Francisco de Orellana in January of 1542. While exploring in the area of modern day Pebas, Orellana encountered a village called Aparia, and captured two chiefs named Aparia and Dirimara, as well as some others (Medina 1934:257). These names could conceivably have come from the Yagua words \(\text{(j)}\)ápiiryá 'red macaw clan' and rímyurá 'shaman' respectively. The former could very well be a village name as well as a name applied to an individual; today clan names are still used by many Yaguas as family names. The word for shaman might also be used to refer to an individual, especially one singled out as a 'chief'.

Regular European contact began in 1686 with the establishment of a Jesuit mission at San Joaquín de los Omagua, on an island in the Amazon river probably near what is now the mouth of the Ampiyacu river (Chaumeil, 1981:18). Though this mission was established to serve the Omagua people, there was undoubtedly contact with the Yaguas as well. From the 17th century to the last half of the 19th century, contact with the Yaguas was mainly through the Jesuit and Franciscan missionaries. In the
early 18th century, Portuguese raiding parties attacked the Spanish missions throughout the Amazon region causing much geographic dispersion of the tribes that were in contact with the Spanish, and inflicting severe casualties (Espinosa, 1955).

The present extreme geographic dispersion of the Yagua, however, is due largely to the effects of the 'rubber boom' in the late 19th and early 20th centuries. At that time Europeans arrived in large numbers from Brazil and began to exploit the indigenous people to extract natural latex from the jungle. Many Yaguas died in conflicts with these Europeans, as well as by exposure to European diseases. Others were exploited as slave labor. Still others fled to remote regions of the jungle. Ever since the rubber boom, the Yagua sense of unity and of common culture has declined. The tremendous distances between villages make it very difficult to have consistent interaction with Yaguas outside of one's home village. All economic activity outside of the village is with non-Yagua peoples, usually Spanish-speaking 'meztizos'. Thus there is economic and social pressure to learn Spanish and assimilate to the general Peruvian culture. Villages are also characteristically quite small (2 to 30 families). This fact further limits the breadth of interaction with other Yaguas, and increases the tendency to want to reach
out beyond one's village for social and economic advantages.

However, the Yagua culture and language do continue to be viable, especially in some of the larger and more isolated communities. Many children grow up speaking only Yagua, and native artisanship is a significant economic activity. Approximately 30 women and nearly the same number of men wear traditional Yagua clothing on a daily basis. There is no doubt, however, that because of geographic dispersion combined with economic and sociolinguistic pressures, the Yagua language is declining in its use. I estimate that the children that are now growing up in monolingual homes will speak Yagua for the rest of their lives, but I doubt that their children will. For this reason, I informally estimate that the language will continue to be a medium of everyday communication in at least some communities for approximately 60 years.

1.3. The Yagua language

1.3.1. Genetic Classification

Greenberg (1960), Loukotka (1968), and Voegelin and Voegelin (1977) all classify Yagua as the only extant member of the Peban or Peba-Yaguan language family of the Ge-Pano-Carib Phylum. The only closely related languages that have been documented are Peba (Rivet, 1911) and Yameo
(Espinosa, 1955), both of which are now extinct. Greenberg's classification of Peba-Yaguan as part of the Ge-Pano-Carib phylum (on which both Loukotka's and Voegelin and Voegelin's seem to be based) is not supported by any concrete evidence, and thus is not to be considered authoritative. In fact the very existence of the Ge-Pano-Carib and Andean-Equatorial phyla has not been sufficiently documented, and therefore offers no real help in identifying the more distant genetic relations of Yagua. Doris Payne (1984) has made some intriguing observations indicating a possible connection between the Zaparoan languages, purportedly part of the Andean Equatorial phylum, and Yagua. These observations, however, have yet to be corroborated by an in-depth research program. Even if Yagua and the Zaparoan languages were shown to be related genetically, the relationship would certainly be very distant. Historical reconstruction and genetic classification of the languages of the Amazon region is definitely an area where much research is needed. Such research, however, will require much more consistent and accurate descriptions of these languages than what are now available, and will need to carefully distinguish between areal features and genetically transmitted similarities. For the purposes of this dissertation, then, we will assume that Yagua has no
extant relatives. Further issues of genetic classification will not be dealt with.

1.3.2. Dialects

Data discussed in this dissertation come primarily from two dialect areas, 1) 'downriver' dialects, spoken in the vicinity of Caballococha near where the Amazon River crosses into Colombia, and 2) 'upriver' dialects spoken from about Pebas up to about Iquitos. There is a certain degree of homogeneity within these two general dialect areas, though the two are quite distinct from each other, especially if opposing extremes are compared. Dialect differences lie mostly in the phonology and in the phonetics of specific lexical items, though certain grammatical differences have been noted. Detailed dialect comparison will not be attempted in this dissertation, though significant dialectal variations will be noted whenever appropriate to the discussion at hand.

1.3.3. Transcription and morphophonemics

The transcription used in Yagua examples in this dissertation is a modification of the current official Yagua orthography. The primary modifications I introduce are the specification of vowel length and tone, both of which are important to the phonology of the language. Other modifications are the use of \[k\] for the voiceless
velar stop instead of the Spanish gu/c, and the consistent specification of the phoneme y. The latter sound is omitted in certain environments in the official orthography because in some of those environments it is practically inaudible, and in others it is predictable from the context. I have retained the use of y for the labiovelar approximate and the Spanish-based use of j for the pharyngeal approximate simply because I am used to these transcriptions, and because they are completely consistent (unlike the use of gu/c for the velar stop).

The following conventions are observed in presenting Yagua examples. 1) Four lines of information appear with most examples in the text of the dissertation, (a) a surface phonemic representation, without morpheme divisions, (b) a morphemic representation giving the underlying forms of all the morphemes and the boundaries between them, (c) a morpheme-by-morpheme English gloss, and (d) a free English translation. In the interest of saving space, the (a) line is omitted when morphophonemic alteration of the underlying forms is non-existent or minimal. The texts given in appendices 1 and 2 exhibit only three lines of data, a surface phonemic representation with approximate morpheme boundaries indicated, a gloss line and a free translation. 2) Morpheme boundaries in the Yagua morphemic English glosses are indicated by hyphens (-). 3) When more than one
English word must be used to indicate the meaning of a single Yagua morpheme, a colon (:) is inserted between the English words. 4) Most morphemes are glossed in such a way so as to render their approximate meaning transparent. However, common recurring forms are given abbreviated glosses indicated in upper case letters. A list of these abbreviations is found in the introductory pages of this thesis.

I would like to emphasize that the morpheme glosses are meant only as a help to the reader. They do not necessarily represent an all-inclusive analysis of the meanings of morphemes. I have attempted, insofar as possible, to gloss morphemes in such a way that the most general meanings are represented in the glosses, e.g. 'proximity' seems to be the most general concept that unites the tense and locational meanings of the 'PROX1' and 'PROX2' morphemes. However, it is not always possible to determine the 'basic' meaning of a form by looking at all its various uses. Also, the morphemic representation (the second line of data that occurs in most examples) assumes that morphemes are isolatable 'chunks' of phonological material corresponding in a direct way with chunks of meaning. I recognize that this assumption cannot be made for all languages, as Anderson (1982) demonstrates. There are situations even in Yagua where this assumption breaks down. However, for the most part
Yagua morphology can be adequately and insightfully analyzed as consisting of strings of meaningful formal units. Because of the various phonological and morphophonemic processes that alter the shapes of morphemes in those strings, I have elected to include the morphemic representation in order to aid the reader in understanding the examples.

Three forms remain unglossed in the examples. These are $\text{jiita}$, $\text{day}$, and $\text{niy}$. $\text{jiita}$ is a discourse structuring particle that correlates highly with thematic breaks at various levels. $\text{Day}$ is discussed briefly in footnote 6 of chapter 2. $\text{Niy}$ is described in chapter 2, section 2.1.5. I have not been able to gloss these forms in a satisfying way with terms available within linguistic tradition. As an interim convention I have simply repeated these forms in capital letters in the morpheme-by-morpheme glosses. A comprehensive analysis of the use of the forms $\text{day}$ and $\text{jiita}$ from a discourse perspective is certainly in order. However, since these forms clearly function outside of the domain of participant coding, I have not attempted such an analysis in this thesis.

The orthographic symbols used in the Yagua examples are given in charts A and B:
Bilabial  Dental  Palatal  Velar  Phar
Vcls stops  p       t       ty       k
Vcd stops  b       d       dy
Nasals  m       n       n
Fricatives  v       s       ch
approxv       j
glide  y
flap  r

Chart A: Consonant phonemes

Front  Central  Back
High  i       i       u
Mid  e       o
Low  a

Chart B: Vowel phonemes

Phonemic vowel nasalization is indicated by a nasal hook (\(\gamma\)). Vowel length is indicated by orthographic doubling. In the surface phonemic representation, high tone is indicated by an acute accent (\(\acute{\gamma}\)) and low tone is indicated by no accent. In the morphemic representation, three vowel types are distinguished on the basis of tone, 1) vowels which always carry low tone, indicated by a grave accent (\(\grave{\gamma}\)), 2) vowels which always carry high tone, indicated with an acute accent, and 3) vowels whose surface tone varies, indicated by no diacritic. The phonological and morphophonemic analysis assumed throughout this dissertation is that of T. Payne (1983b).
1.4. Data base of the study

Insofar as possible, all data in the dissertation are from extended texts, though elicited material is used to fill in certain crucial gaps and to illustrate simple, completely straightforward forms. Textual data are either from texts collected by myself, and by Doris Payne during our two years with the Yaguas, or from those collected by Paul Powlison, primarily between 1952 and 1956. The former texts comprise approximately 2,500 clauses or non-clausal conversational turns (3.5 hours of tape recordings), and are primarily from the downriver dialect area. These data have all been entered onto computer tape in a linguistically-oriented data base format which renders them extremely accessible. Most of these texts are folkloric or personal experience narratives, though there are some conversational, hortatory and procedural texts. The Powlison texts consist of well over 5,000 clauses of folkloric and personal experience narratives and are primarily from the upriver dialect area. An exhaustive morpheme-based concordance of the latter texts provides excellent accessibility to relevant examples. Additional data sources include the unpublished Yagua-Spanish and Spanish-Yagua dictionaries produced by the Powlisons (2,889 and 3,529 entries respectively), supplementary dictionaries produced by ourselves (Yagua-Spanish, 502
entries; Spanish-Yagua, 501 entries), and our personal field notes.

Four texts appear in the appendices of this thesis, two in Yagua with glosses and translations, and another two in a fairly literal English clause-by-clause translation. The last two texts, the One-eyed Warriors and the Twins Cycle, are quite long. The Yagua text of the Twins Cycle (appendix 5) appears in Powlison (1969), and both tales are described in some detail by Powlison. For these reasons I have elected not to included the full Yagua versions of these last texts. For the purpose of illustrating thematic structure, I judged the English translations to be sufficient. Examples in the thesis that come from any of the appended texts will be labelled with a reference in parentheses to the text and the clause number within the text. For example 'FSQ10' is clause number 10 of the First Squirrel text. Examples from other sources, including other texts, are not so labelled.

1.5. Previous work

Because this study involves two general areas of interest, there are essentially two broad categories of previous research that I will draw from, 1) descriptive work, and 2) more theoretical work. Category one is further divided into previous descriptive work on Yagua, and a descriptive framework within which the data is
organized. Category two consists of literature pertaining to the tradition of discourse analysis that forms the basis for chapters 4 through 7. In the following two subsections of the present chapter I will briefly review these literatures and attempt to outline my assumptions relevant to the two major divisions of the thesis.

1.5.1. Background to chapters 2 and 3

1.5.1.1. Previous work on Yagua

The major anthropological treatments of the Yagua are Tessmann (1930) and Fejos (1943). These works are both quite comprehensive, and generally reliable. Neither one of these early works, however, deals in any depth with the topic of folklore and/or mythology, much less linguistics.

Powlison (1969) is undoubtedly the most comprehensive and reliable source on Yagua folklore and mythology. The work contains transcriptions and translations of two tales in the standard orthography as it stood in 1969. The Twins Cycle (appendix 5 of this thesis) is a retranslation of one of these tales. Powlison's work is based on a much larger body of texts collected in situ over a period of about 4 years. The hypothesis advanced is that Yagua folklore exhibits characteristics of true epic literature, as defined in the classical traditions. Powlison proves this hypothesis by observing various structural and
conceptual similarities between Yagua folklore, as represented by his sample, and classical epic literature, such as the work of Homer. Powlison concludes that the only requirement for Yagua folklore to become classifiable as truly epic would be for one author to unify and codify the various recurring episodes into one, unified whole. This is essentially what is presumed Homer must have done in the Greek tradition. Basically he was a compiler of various interconnected episodes of stories that had for years previously existed only in oral form. Powlison is pessimistic, however, of this ever happening in the Yagua context, due to the lack of education among the Yaguas, and the general cultural decay that is currently taking place.

Paul Powlison's published linguistic work on Yagua consists of one paper on palatalization (1962), another applying Propp's (1958) principles of paragraph analysis to a Yagua folktale (1965), and a third in collaboration with Esther Powlison on the number system (1958). A summary of this last paper appears in English in IJAL (1961). Esther Powlison has also published one paper on Yagua suprasegmental phonology (1971). Various unpublished works by the Powlisons are listed in the bibliography of the Summer Institute of Linguistics, Perú branch (1977). Among this unpublished work is a tagmemic-orientated grammar sketch by Paul Powlison.
This sketch is the only previous work dealing specifically with Yagua grammar, and though it contains many significant details about the language it remains a tentative, unpolished description. The only other specifically linguistic work on Yagua is my own and that of Doris Payne (see bibliography).

Other Yagua work which deserves to be mentioned is that of Jean Pierre Chaumeil and Annemarie Seiler-Baldinger. Both of these scholars have worked extensively with the Yaguas, and have unpublished work in the area of folklore and belief. The published work of Chaumeil includes a valuable bibliography (1976a), and several other short works in Spanish (see bibliography). Chaumeil's major contribution to date is a detailed monograph on Yagua migrations since the 17th century (1981). Chaumeil is currently working on a book of Yagua mythology which also promises to be a major contribution. Seiler-Baldinger has contributed much in the area of material culture (1979), and somewhat to the migratory question (1976). She is currently continuing her research on Yagua migrations, and is reportedly collaborating with Chaumeil on a work relating the Yagua belief system to their material culture (J. P. Chaumeil, p.c.). Both of these scholars have done excellent and extensive work in their respective fields, though their contributions have been of limited value to the linguistic world.
Against this background of previous work on Yagua this dissertation is presented with the intention to partially fulfill the need for detailed and useful information on Yagua, one of the many little-studied languages of the Amazon basin. Beyond a straightforward description of Yagua, I will test and evaluate certain hypotheses emerging within the sub-discipline of discourse analysis and functional linguistics, as outlined in subsection 1.5.2. This study will show that Yagua in particular and Amazonian languages in general are crucial elements in the advancement of our general knowledge of language universals.

1.5.1.2. A descriptive framework

By way of introduction a few definitions are in order. A participant coding device (sometimes termed simply 'coding device') is any concrete linguistic expression (including the conspicuous absence of any phonetic material) that serves to mention, i.e. code, a participant. This term subsumes both full noun phrases and abbreviated forms such as pronouns, agreement markers and zeros. Occasionally the term 'participant coding system' will be used to refer to the set of devices, and their various possible combinations, that is available in a particular language. Participant coding is thus presented in conceptual opposition to other kinds of
coding, such as perhaps 'event' coding, 'time' coding etc., and will delimit the domain of investigation of this thesis with respect to the grammar of Yagua. That is I will first describe, and then insofar as possible explain in typological and functional terms, a large subset of the formal devices used by speakers of the language to code participants.

Throughout the dissertation it will be convenient to use the terms A, O, S_a and S_o to refer to the 'semantico-syntactic' roles associated with participants. The terms A, O and S were first used by Silverstein (1976), but taken up and refined somewhat by Dixon (1979). The terms S_a and S_o were, as far as I know, first used by Dixon (1979). In this thesis I will adopt Dixon's definitions with only slight modification, as outlined below. Dixon's definitions of these terms rest on several assumptions, mostly implicit, which I will attempt to list and explicate in the following paragraph.

The first assumption that underlies the terms A, O, S_a and S_o is that the syntactic clause is the relevant unit of structure within which linguistic primes can be isolated. This assumption is consistent with the view taken in this thesis that the clause is the concrete linguistic expression of the discourse 'scene' (Fillmore, 1977), i.e. a verb and its associated participant mentions (see section 1.5.2.3). Second, the terms A, O, S_a and S_o
presuppose that clauses have core arguments and peripheral arguments. This assumption is consistent with the notion that a language user can only primarily attend to a very limited amount of information at a time (Chafe, 1980). Many participants may be on stage, but it is an empirical observation across languages that at most three participants can be in perspective at once. Core arguments are traditionally termed subjects, objects and indirect objects, while peripheral arguments are any obliques. Third, these terms assume the existence of two prototypical clause types, those with one core argument (traditionally termed 'intransitive') and those with more than one core argument (traditionally termed 'transitive'). Finally, these terms assume that in any clause that has more than one core argument, one of the arguments is more agent-like, by virtue of either its inherent semantic features (e.g. animates are more agent-like than inanimates), and/or by virtue of the semantic similarity of the verb to other verbs which activate similar scenes that clearly contain an agent role (e.g. the experiencer of the verb 'see' is more agent-like than the perceived item because the experiencer of similar verbs like 'watch', 'scan', etc. is in fact an agent).

Given these assumptions, Dixon defines A, O, S_α and S_ο as follows: A is the most agent-like argument of a multi-argument clause, O is the next most agent-like
argument (and in fact is not normally agent-like at all). The category of $S$ arguments (i.e. $S_a$ and $S_o$) encompasses all unique core arguments of single argument clauses. $S_a$ arguments are those $S$ arguments that exert volition and control over the event expressed by the verb, e.g. 'John' in 'John ran'. $S_o$ arguments are those unique core arguments that exert no such volition or control, e.g. 'John' in 'John died'.

The differences between the way I intend to use the terms $A$, $O$, $S_a$ and $S_o$ and the way Dixon uses them are rather minimal, and will not in any crucial way affect the presentation of the data. First, I prefer to use the term 'participant' rather than Dixon's term 'argument' since the term participant emphasizes the concepts communicated by language rather than the form of linguistic descriptions of those concepts.

Second, Dixon distinguishes $A$ and $O$ participants on the basis of potential agentivity, whereas in this thesis I will rely more heavily on the notion of perspective (Fillmore, 1977). Given a clause in isolation, and attempting to ignore surface structure, it is certainly easier to independently determine which participant is the most agent-like than to determine which is in primary perspective. This is because perspective has to do with the point of view taken by the speaker at particular points in discourse, and is thus not empirically
verifiable by ordinary clause or sentence-based linguistic methodology. Agenthood, on the other hand, is more empirical in that we can for the most part agree that a given participant in an event is more or less potentially agentive than some other participant. It stands to reason that the participant in primary perspective should correspond roughly to the most agent-like participant due to the general tendency of human beings to talk about and identify with entities that exert control, have power, and are active. This tendency is the basis for several proposed hierarchies such as the animacy hierarchies of Silverstein (1976) and Comrie (1981), the empathy hierarchy of Kuno (1976) and many others. However, it is not a requirement that speakers always give such participants the most prominent positions in the clauses they utter.¹ This fact, I contend, is the reason for the failure of all semantically based attempts to define grammatical roles. Thus the most agent-like participant may be the closest empirical correlate of the participant in primary perspective, but these two terms are not by any means equivalent.

Finally, Dixon distinguishes the terms $S_a$ and $S_o$ semantically rather than morphosyntactically. That is, for Dixon, all $S$ participants which are in fact agents are $S_a$. All $S$ participants which are not agents are $S_o$. Particular languages (though not many, according to Dixon) make a
morphosyntactic distinction based on this semantic
distinction, though every such language has lexically
determined exceptions. In Yagua, however, it is clearly
not the case that the morphosyntactic distinction between
$S_a$ and $S_o$ is always, or even predominantly based on the
semantic roles of the participants. Thus the terms $S_a$ and
$S_o$ for Yagua are distinguished only on the basis of
morphosyntactic coding. These facts will be illustrated in
chapter 2, section 2.2.1.

1.5.2. Background to chapters 4 through 7

It is difficult in principle to know where to begin
in describing the evolution of a tradition. Traditions
have no specific, easily observable starting point. Rather
they materialize out of a pool of ideas and evolve little
by little into something definable as a tradition. In
thinking about the theoretical tradition in which this
dissertation is cast, three works stand out: Grimes
(1975), Chafe (1976) and Fillmore (1977). In this section
I will attempt to show that these works do represent,
though not exhaustively, the roots of a tradition. I will
also show how this thesis fits into that tradition and,
hopefully, expands the general understanding of the
phenomenon known as human language.
1.5.2.1. The discourse as a structural unit

I will begin the discussion with Grimes' *Thread of Discourse* (1975). This work, like any other, is the product of a conglomerate of traditions, with strong influence from Generative Semantics, Systemics and Tagmemics. Grimes, following Pike (1971), defines a discourse as a verbal 'beavioreme', i.e. something that is recognized as a cohesive unit by a particular culture, and as such has definable beginning and end-points as well as internal structural characteristics. Grimes (1975) is essentially an inventory of the ways in which discourses begin, end, and exhibit internal structure. One crucial contribution of Grimes' work, then, is that discourse does have structure, and that linguists should not in principle avoid investigations of the structural characteristics of whole discourses simply because the field is too vast, or the principles appear to be too nebulous.

A recurring theme in Grime's work is the interrelation of two principles which govern the structure of discourses -- cohesion and prominence. Structural characteristics of discourses, be they semantic or syntactic, can generally be divided into those that provide cohesion and those that provide prominence. Without cohesion a list of sentences would not be perceived as a text. Without prominence bits of information in a text would blur together into a hopeless
mush. All research in discourse analysis recognizes that discourse is most naturally continuous (see, e.g., Givón, 1983a,c,d). That is, we expect that any text that we might hear will 'hang together' in some way or another. We need to be able to link what is said in one sentence to that which comes before it and that which comes after. Speakers use various semantic and syntactic devices to establish those links. On the other hand, there also must be ways in which discontinuity, or dissimilarity is expressed. Even as cohesion allows discourse to flow smoothly, prominence provides rhythm, texture and depth.

1.5.2.2. Givenness and participant coding

In discussing the use of various participant coding devices, both Grimes and Chafe (1976) observe that more 'attenuated' forms of reference are used for items that the speaker perceives the hearer already has 'available' in his or her consciousness. Thus, for example, the use of a pronoun rather than a full noun phrase conveys to the hearer that the speaker is referring to something that should already be available at some near-surface level of consciousness. A pronoun is, therefore, a cohesive device in that it provides a link between the sentence in which it occurs and something that has already been established (i.e. made 'available'). Both Grimes (1975) and Chafe (1976) are tied to this catagorical either-or notion of
availability: pronouns are used for entities that are available (or given), and full noun phrases are used for entities that are not available (or new). Neither of these works takes these ideas to the point of postulating an explicitly defined scale of availability corresponding to a scale of attenuation. This is precisely what Givón (1983a,c,d) has done. In Givón's view, availability is a scalar notion -- participants are more or less available at any given point in a discourse. The more available a particular bit of information is in memory, the easier it is to retrieve. The easier something is to retrieve the more 'attenuated' the form of the device used to retrieve it is likely to be. This line of reasoning is based on the universal 'principle of least effort': 'expend only as much energy on a task as is required for its performance' (Givón, 1983c:18). Full noun phrases are assumed to require more effort to produce than pronouns since noun phrases are 'larger', both semantically and phonologically.

Chafe (1976) has the following to say regarding the ways in which one might approach a systematic examination of the effect of 'givenness' on the choice between full noun phrase and pronominal reference in discourse:

The question of what causes the speaker to believe that an item has left the addressee's consciousness needs systematic examination (Chafe 1974:127-32). It would not be difficult to examine tape recorded speech with this question in mind, and to look for instances where something previously
treated as given is later treated as new. The number of intervening sentences in which the item was not mentioned is one obvious variable, but more interesting would be the effect of such discourse boundaries as a change of scene, where a whole new set of items can be assumed to enter the consciousness of the addressee, presumably pushing out old ones.

(Chafe, 1976:32-33)

Clancy (1980), working under Chafe, takes up the challenge represented in the above quote and actually measures the discourse distance in sentences and clauses between the various references to a participant in Japanese and English narratives, and calculates mean values for the degree of distance for noun phrases, pronouns (for English) and ellipsis (for Japanese). Furthermore, Clancy makes a serious attempt to come to grips with higher-level discourse structure (sometimes referred to as 'thematic structure') in that she also measures the effects of various kinds of high-level discourse boundaries on the choice of coding devices. Finally, Clancy also measures the number of mentions of other participants between one mention and another of a given participant, and records the effects of this measurement on coding choices. This measurement is termed 'interference' in Clancy (1980). Thus Clancy is the first to empirically validate, using quantitative data from actual texts, the intuitive claims of Grimes and Chafe concerning the effect of givenness (or 'availability') on the choice between noun phrases and more attenuated coding
devices. Givón (1983a,c,d) builds on Clancy's methodology for assigning quantitative values to the degree of availability of various participants. The central contribution of Givón, however, is that he provides functional principles that predict exactly the results that the quantitative studies represented in Clancy (1980), Givón (1983b) and elsewhere show (see chapter 4, sections 4.1 and 4.2 for a more detailed discussion of Givón's theory and methodology).

1.5.2.3. Some recurring metaphors

I believe that we must choose our metaphors carefully, since our metaphors to a large extent determine our view of reality. A metaphor can help us understand a phenomenon by putting limits on our conceptualization of the nature of that phenomenon. However, we must always keep a metaphor in perspective, and be willing to exchange it for a new way of approaching reality when our understanding reaches the limits of our metaphor's usefulness. For example, in trying to understand how a pocket calculator works we could use the metaphor of an abacus. We might be able to explain a good deal of the output of the calculator by supposing, at least temporarily, that it functions like an abacus. However, there must come a point at which the abacus metaphor will fail us, and we must either revise our metaphor or be
content with a limited understanding of the phenomenon. Ultimately, of course, we will not completely understand the workings of the calculator until we obtain the technology to examine its hard inner workings in relevant ways.

The phenomenon that Chafe (1976), Clancy (1980), Givón (1983a,c,d) and others are concerned with is the cognitive processes involved in discourse production. More specifically, these works, and the present thesis, are concerned with the process of keeping track of participants in discourse. Many metaphors have been used to describe aspects of this process, most of them based on mechanico-computational phenomena. For example, Du Bois (1980:220) uses the metaphor of a filing system. When a participant is introduced into the discourse, a 'cognitive file' may be opened for that participant. Some coding devices serve to introduce participants but without opening a cognitive file for them. Once a file has been opened for a participant, however, that participant can be referred to at will with attenuated coding devices. This particular metaphor has been used by several other scholars, including Chafe and Givón.

Givón (1983a,c,d) uses the metaphor of a discourse 'register'. Whenever a participant is mentioned it is 'registered', to some degree or another, in memory. Different coding devices may register participants more
strongly than others, and each mention of a given participant establishes that participant more firmly in the register. If a participant is not mentioned in a given clause, it begins to 'decay', i.e. its prominence decreases. Prolonged lack of mention renders a participant 'absent from the register', and any subsequent mention must treat that participant as if it were being introduced as new information.

Chafe (1984) uses the terms 'already active' in place of 'given' information, and 'previously inactive' in place of 'new' information. This terminology is adopted in order to both clear the air of much confusion of terminology in this area, and also to capture the sense that givenness has ultimately to do with the status of information in the mind. Various morphosyntactic coding devices are said to shuttle information back and forth between three stages of activation: 1) previously inactive, 2) previously semi-active and 3) already active information. Hence Chafe assumes a view of discourse as an ongoing computational process which includes the assessment and assignment of various activation states to pieces of information.

The major metaphor and recurrent theme of the present study is that discourse depicts a world that can metaphorically be described as a stage on which a play is being acted out. This view is consistent with Fillmore
(1977) who claims that verbs with their unique case frames activate 'scenes' (another dramaturgical metaphor) in the minds of language users. This metaphor appeals to me for several reasons. First, it is especially appropriate for the description of narrative discourse. In narrative the story-teller creates and manipulates a 'story world' (Clancy, 1980) in which participants come, go and interact. This is very similar to what happens in a formal drama; the house lights dim and the audience is transported to another 'world' in which events are manipulated by others. Second, it seems to me that 'presence on stage' is a more appropriate metaphor than, e.g., 'presence in the register' in that participants can be on or off stage independently of the number of times they have been mentioned previously. For example, a narrator may shunt a participant 'off stage' by the use of a clause like 'he left', or 'he died'. The content of such a clause renders the participant less likely to be mentioned again in the next clause, even though that participant may be very strongly registered at that point. Finally, there is more in common functionally, it seems to me, between story-telling and formal dramatization than between story-telling and computerized data-processing. The narrator of a story accomplishes socio-cultural tasks that are very similar to those accomplished by the formal dramatist, e.g. entertainment, instruction, socialization,
etc. If we view storytelling as similar, even metaphorically, to the process involved in formal dramatization, we are closer to the functional roots of the cognitive process we are trying to describe than if we use a mechanico-computational metaphor.

All of the above views are no more than metaphors. They are all useful in their own ways in helping us to understand something about the cognitive processes involved in discourse comprehension and production. However, we err if we take any of these metaphors so seriously as to mistake them for reality. The human mind does not necessarily function like a computer any more than a hand calculator functions like an abacus. We will never fully understand the workings of the human mind until and unless we develop the technology to examine the biological systems involved with appropriate scrutiny and detail.

1.6. Summary

The Amazon region represents a significant gap in current knowledge of languages of the world. Although approximately 6.5% of the living languages of the world are spoken in lowland South America (B. Grimes, 1984:xv), typological studies rarely include languages from this region. Yagua is one of the many languages of lowland South America for which there is little in the way of
descriptive material available. I hope that the present thesis will partially fulfill this need for solid descriptive material.

Research in the area of quantitative analysis of texts, and the use of anaphora in discourse has advanced to the stage where cross-language comparison of participant coding systems is now possible. I hope that the present thesis will contribute to this area of investigation by providing further empirical text-based data from a previously little-studied language. I also hope to refine the current methodologies such that more exact measurements can be achieved and previously problematic data, such as reported speech, can be incorporated into the findings.
FOOTNOTES to chapter 1

1. In fact recent research by Du Bois (1981) shows that in actual discourse, subjects (A together with S according to Dixon’s terminology) are only occasionally agentive, or even agent-like. It may be a true generalization that if there is an agent (or an agent-like participant) in a clause, that participant is typically the subject, but from this we cannot infer the oft-proposed converse: subjects are typically agents. This kind of finding suggests that perspectivization is really closer to the actual conceptual basis for subjecthood than is agentivity. And this, to me, is reasonable if we take the view that the categories we propose for a language should correspond to the categories that are relevant to the users of that language in actual discourse. If syntactic categories were based even loosely on semantic categories speakers would have a very difficult time assigning participants to the correct syntactic categories, given the range and complexity of semantic roles that participants play in events. Perspectivization, on the other hand, is a variable that the speaker him or herself can control. He or she can decide what participants are going to be prominent, and which ones are going to be peripheral in any given clause. It stands to reason that formal categories such as subject should be based on
categories that language users are actually sensitive to. Perspectivization is definitely more elusive than semantic roles to the linguist constrained by traditional linguistic methodology, i.e. analysis of texts as artifacts of behavior. However recent studies by Tomlin (1985), Givón (in preparation) and others are attempting to empirically verify such categories through psycholinguistic experimentation. I have no doubt that future work in this area will uncover many new methodologies and hypotheses involving the relationship between perspectivization and syntactic categories.

2. The term 'attenuated' here refers to both semantic and phonological attenuation. For example, a pronoun is semantically attenuated in that it codes only a limited number of semantic features of its referent, typically person and/or number. Pronouns are also phonologically attenuated in that they are characteristically 'smaller', i.e. have fewer phonemes, than full noun phrases.
2. Chapter 2: Coding Devices

The term 'coding devices' (Givón, 1983a) will be used to cover all formal devices used to code participants. These devices include noun-phrases, pronouns, verb coding (agreement), head-coding (in the case of possessors and oblique objects), enclitics (in the case of 0 and $S_o$ participants), zero, and all combinations and ordering permutations thereof. Zero as a coding device refers to the conspicuous absence of any morphological material in a position where a mention of a participant is clearly implied. In this chapter I will introduce and illustrate these coding devices in simple constructions. Not all of the devices presented in this chapter will enter into the discussion of the use of coding devices in discourse in chapters 4 through 6, as not all are represented in the corpus in sufficient numbers to make significant discourse-based generalizations.

2.1. A and $S_a$ Coding

All As and $S_a$s have the same set of possible coding devices in Yagua. These are: verb-coding (VC), pre-predicate noun phrase (PNP), verb coding plus post-predicate noun phrase (VC+NP), zero, prepredicate pronoun (PPRO), right-dislocated pronoun (often occurring with the enclitic -day), and right-dislocated NP. The right-dislocated PRO and NP are marked devices that occur
very rarely, and then only in combination with one of the other devices.

2.1.1. Verb coding (VC)

A and Sa participants may be coded by verbal prefixes. The basic forms of the verb coding prefixes are identical to the head coding prefixes used on nouns to code possessors (section 2.3.1) and on post-positions to code their objects (section 2.4.1). These basic forms are illustrated in chart C:

<table>
<thead>
<tr>
<th>1st excl.</th>
<th>2nd incl.</th>
<th>3rd</th>
<th>4th</th>
<th>inan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sg. ray-</td>
<td>jiy-</td>
<td>sa-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dl. nááy-</td>
<td>vɔŋy-</td>
<td>sاعدة</td>
<td>naada-</td>
<td>jiy-</td>
</tr>
<tr>
<td>Pl. nûûy-</td>
<td>vɔŋy-</td>
<td>jirye</td>
<td>riy-</td>
<td>(no number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>distinction)</td>
</tr>
</tbody>
</table>

Chart C: Prefixal Forms

T. Payne (1983b) presents rules that derive essentially all surface forms of person and number prefixes from the above underlying forms. There are four major classes of stems distinguished by the form of the
initial syllable. Class I stems are all those whose initial syllable is a consonant other than \( j \) plus any vowel, or \( j \) plus the vowel \( \alpha \). The three other classes exhibit the initial stem syllables, \( ja \), \( ji \), and \( ju \) respectively. No stems begin with the syllable \( je \) in their underlying form, and \( je \) stems conjugate just like class I stems.

The following examples illustrate the VC device with verb stems from each class:

(1) \( Rañikyéé \). 'I speak.' \((Sa)\)
ray-nikyee (class I)
1SG-speak

(2) \( Sañu buyáá \). 'S/he drinks manioc beer.' \((A)\)
sa-jatu buyáá
3SG-drink manioc:beer (class II)

(3) \( Vuryiimiy \). 'We eat.' \((Sa)\)
vurya-jimi\(i\)\(i]\) (class III)
1PLINC-eat

(4) \( Sñutúra \). 'S/he carries it.'
sa-jù\(t\)ù-rà (class IV)
3SG-carry-INAN

These prefixes may also occur on an auxiliary verb:

(5) \( Vurya \) jatú buyáá.
vyrya-q jatu buyáá
1PLINC-AUX:IRR drink manioc:beer
'We will drink (or let's drink) manioc beer!'

(6) \( Sañiy \) jiriyi yímújura.
sa-niy jiriyi yí-mu-jù-rà
3SG-AUX:MALF grab 4-LOC-AL-INAN
'He grabbed it to himself (to his own detriment, or with evil intentions).'
2.1.2. Pre-predicate noun phrase (PNP)

When a full noun phrase is used to code an A or S_a participant, that noun phrase may precede the verb. Verb coding then may not be used to code the same participant, as illustrated by the ill-formed strings following examples 7 and 8:

(7) Sa-munaadé kúútya. 'His placenta whispers.'
    3SG-placenta-DIM whisper (S_a)
    *Samunaadéé sakúútya. 'His placenta he whispers.'

(8) Jíryoonú süúyanníi. 'A bushmaster bit him.'
    jíryoonú süúy-janu-níi (A)
    bushmaster bite-PAST3-3SG
    *Jíryoonú sasüúyanníi. 'A bushmaster he bit him.'

2.1.3. Verb Coding plus (post-predicate) Noun Phrase (VC + NP)

When verb coding is accompanied by the overt expression of a coreferential noun phrase within the clause, that noun phrase must follow the verb:

(9) Sa-suvuyó Anita
    3SG-afraid. Anita (S_a)
    'Anita is afraid.'

(10) Sa-nááyí Alchico-rá
    3SG-press Alchico-INAN (A)
    'Alchico presses it.'

Conversely, when a full NP coding an A or S_a participant follows the verb, a verb coding prefix is obligatory. Thus it is not necessary to annotate the coding device.

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here termed VC+NP as to whether the NP occurs post-verbally or pre-verbally. It is a syntactic requirement that when an NP alone codes an A or S_a participant, that NP must be preverbal. When the NP occurs in combination with a coreferential VC prefix, however, then the NP must be post-verbal.

A preliminary hypothesis regarding the use of the post-verbal NP in addition to the VC prefix would be that the NP is uttered as an 'afterthought' when the speaker judges that VC was not sufficient to uniquely distinguish the correct participant. However, there are four arguments against this analysis: 1) An inspection of texts reveals that the VC+NP forms are used more commonly, and in less marked discourse contexts than the simple NP constructions (see chapter 4, section 4.6.3). This would hardly be an expected characteristic of 'afterthought' constructions. 2) VC+NP constructions are normally uttered under a single intonation contour, suggesting that they code a single focus of consciousness and therefore do not involve a reconsideration and partial restatement. 3) As illustrated in example (10), when an 0 participant occurs in the clause it must follow any overt subject NP. This indicates that the overt subject NP is at least as closely tied syntactically to the verb as the 0 participant is, which again is not a reasonable characteristic of afterthought subjects. 4) Finally, there
is another device -- right dislocated NP -- that does, in fact, code afterthoughts as evidenced by the fact that it is normally uttered under a new intonation contour, and occurs very rarely in discourse (see section 2.1.7). Thus it appears that the after-thought hypothesis does not explain the function of the VC+NP constructions, at least as far as the synchronic grammar is concerned. In chapter 5 I will attempt to distinguish the function of VC+NP coding devices from that of the others.

2.1.4. Zero

Zero as a coding device for A and $S_a$ participants is rare in discourse. It occurs in nominalized complement clauses whose subjects are coreferential with the subject of another conceptually closely tied verb (see chapter 3), but with independent verbal predicates it is quite rare. Oddly enough, when zero is used for A or $S_a$ participants it does not necessarily indicate interclausal coreference. For example in TC489 (1b below) Placenta, transformed into a woodpecker, is trying to steal a pifayo seed from Grandfather. In example 1a there is no mention, overt or covert, of Placenta. Grandfather is just shooting in general, not specifically at Placenta:

    then 3SG-shoot then-DAY
    Then he (grandfather) shoots. (TC488)
b. Múúy ꯞ díiyqásityéé paríché rííva
    múúy díiy-yaa-siy-téé paríché rá-íva
    there 0 find-DIST-DEP-INTS finally INAN-DAT

rátaditéé.
rá-tadi-téé
INAN-seed-INTS

'There (Placenta) finally finds its seed as he is about to leave.' (TC439)

In 11b there is absolutely no overt reference to Placenta, though he is clearly the agent of 'find'\(^5\). Placenta is a very central character in the discourse, but is not overtly mentioned in the preceding clause. Interestingly, this story continues with another couplet of clauses very similar to that illustrated in 11, but with Placenta receiving overt mention, and Grandfather being coded with a zero:

(12) a. Sa-niy maa-sii-fumáá-ta ruumu-siy,
    3SG-AUX:MALF exit-run-now-when there-from
    'When he (Placenta) rushes out of there (to his own detriment) . . . (TC490)

b. jásiy ꯞ duúntyéé váríchqarájudaňií.
    jásiy ꯞ duu-ntyéé váríy-sarájú-day-níí
    there 0 shoot-right:there then-immediately-DAY-3SG
    'Right there (Grandfather) immediately shoots him.' (TC491)

Again, the use of zero coding for the A of 12b is not explainable in terms of an interclausal constraint on coreference, since the antecedent of the zero does not appear in the previous clause. However, the context of these clauses makes it clear who is acting on whom, and thus no more specific coding device is, strictly speaking,
necessary. However, this observation does not constitute an explanation for the use of zero since in the vast majority of cases where the context is in a technical sense sufficient to determine the reference of a particular participant, some overt coding device does in fact occur. Thus the specific function of zero in Yagua will have to await further data and research for a satisfactory explanation.

2.1.5. Pre-predicate pronoun (PPRO)

The forms of the independent pronouns in Yagua are quite similar to the forms of the verb coding prefixes illustrated in chart C. Chart D illustrates the independent pronouns:
1st  2nd  3rd  4th  inan
ex inc

SG. ráy jíy níí

Dl. nááy vüüy såqá naaá -- --

Pl. núúy vüüy jiryéy riý

Chart D: Forms of Independent Pronouns

These pronouns can occur as integral clause constituents in prepredicate position, or as right dislocated elements (see section 2.1.6). In this section we will illustrate the use of pre-predicate independent pronouns to code A and Sₐ participants.

Independent pronouns are used quite rarely in Yagua discourse as integral clause constituents. I hypothesize that they function in situations of selective contrast (see chapter 7), as in the following examples. In example 13 two wasps have tried to spear a boa using their wasp stingers as spears, but are not able to penetrate his skin. So the hero of the story, a human being, grabs a real spear and says:
(13) Rány jiingga jachiñíí. 
    réy jiingga jachiy-níí. 
1SG:PRO JIITA IRR spear-3SG 
'I will spear him.'

Here the 1st person singular pronoun rány is used to indicate that the speaker will spear the boa where the other two have failed.

In the following excerpt the PPRO device is used twice. The immediately preceeding context concerns a group of Yaguas who come upon a group of non-Yagua indians. They wonder how they can speak with the non-Yaguas, since they don't know their language. Then another participant is introduced, a Yagua who happens to be with the group of non-Yaguas. He is contrasted with the other Yaguas because of his knowledge of Spanish:

(14) a. There is a certain Yagua person with them too.

    b. Níñiy jiingga dáátyara máañikyeejáá.
       níí-níiy jiingga dáátya-rá maay-nikyee-jáá  
3SG:PRO-NIY JIITA know-INAN white-speak-PART 
'HE (this new participant) knows Spanish.'

    c. Níñiy níkýee-táríy níjááqváy . . .
       níí-níiy níkýee-táríy níjááq-váy  
3SG:PRO-NIY speak-TRNS-3pl Yagua-pl 
'HE says to the Yaguas . . .'

The existential clause in 14a introduces the new participant, while 14b contrasts him with the other Yaguas, and 14c contrasts him with the other non-Yaguas. The basic form of the 3SG pronoun is níí. The clitic -nííy in these examples is a second position special clitic whose function is still under investigation. From a
sentence grammar perspective it seems to be semantically empty, in contrast to other clitics that may appear in the same position and which add various modal and adverbial senses to the clause. There is a homophonous auxiliary niy (see example 12a above) which I have termed 'malefactive' since it implies that the action was carried out in anger or to the detriment of the subject. However, this malefactive form is clearly an auxiliary since it takes verb coding (3SG = sa-), whereas the -niy in examples 14b and 14c follows the pronoun. Furthermore, there are no malefactive connotations to the latter two examples.

It is also significant that when the PPRO device is used, verb coding is precluded. In example 13 above the irrealis auxiliary is in the bare form ra which, the initial r notwithstanding, does not code the 1SG subject. Similarly the verbs daâtya in example 14b and nîkyee in 14c are uninflected for subject. This constraint also holds when the subject is coded by a preverbal NP as discussed in section 2.1.3.

2.1.6. Right Dislocated Pronoun (+day)⁶

A right dislocated pronoun is never the primary coding device for a given participant in a clause. Rather it always recapitulates a previous mention within the same clause. Right dislocated pronouns may occur under a
different intonation contour from that of the clause with which they are associated. This intonational break is symbolized in the examples by a comma. Often, however, there is no noticeable intonational break, as in example 15 below. In these cases the particle -dáy typically occurs.

(15) Tomáása ji̱ita rä jiyá, néé rça jiyá radyév.
    Tomáása ji̱ita rä jiya néé ra-ä jiya ray-day
Tom JIITA IRR go NEG 1SG-IRR go 1SG-DAY
'Tom is going; I'm not going.' (i.e. Tom is going instead of me.)

The right dislocated pronoun device is common in information questions, e.g.:

(16) Tá̱aratanaa saduunúyada
    tá̱ra-ta-numaa sa-duu-núy-jada
what-INST-now 3SG-killi:blowgun-CONT-PAST3
rajyebeií javâda, tá̱aratá?
ray-jááy-bay-níí javâda tá̱ra-ta
1SG-father-deceased-3SG meat/animal what-INST

'With what did my father shoot animals, with what?'

(17) Chíj deenú junaachara nááváy, chíj deenú?
    chíj dee-nu junaay-sara nááváy chíj de-e-nu
who DIM-CF cry-NOM above who DIM-CF
'Whose children are always crying above, whose children?'

In example 17 the possessor of 'children' is the participant being questioned. The right-dislocated echo is a full NP, though the question pronoun chíj is what is significant. The form -deenú just goes along for the ride.
2.1.7. Right dislocated NP (RDNP)

Occasionally a participant is coded with a full noun phrase occurring after all other clause constituents. Like right dislocated pronouns, these noun phrases always recapitulate a mention of that participant inside the clause itself. For example:

(18) Nǐntyēé sūtyēé jiyyudāy, nuuvā.
    niǐ-ni-y-tēé sūy-tēé jiyyu-day nuuvā
    3SG:PRO-NIY-INTS call-INTS here-DAY toucan
    'HE really calls, the toucan.' (FS131)

(19) Rājāvyemāá, yunūy, muktyunū.
    rā-ja-yve-maa jiyy-junūy muktyu-nū
    INAN-grow-PERF 2SG-see pachaco-CL:tree
    'It had already grown, you see, the pachaco tree.'

These examples illustrate what I intuitively see as a true 'afterthought' construction.

The right dislocated NP device is also used for added detail as in the following example:

(20) Jānnaridyenū siichiy, nūuytijdeerā.
    jānnaridy-dee-nū sii-y-siy núuy-tiįį-dee-ra.
    deer-DIM-MASC run-DEP spot-NOM:having-DIM-NOM
    'A little deer ran away, a little spotted one.'

In example 20 the recapitulating NP is not an 'afterthought' in the usual sense of this term, since the reference of the deer is perfectly established by the pre-predicate NP. There are no other deer in the story that might compete as the referent of the subject NP. Rather the speaker simply wishes to describe the deer more fully, and so qualifies the clause with a right-dislocated
NP which adds detail to the reference of the subject NP. See section 2.2.8 for examples of an RDNP device used for added detail with 0 participants.

2.2. 0 and $S_o$ Coding

As discussed in section 1.5.2, the term 0 refers to participants which can generally be thought of as transitive objects. In Yagua, subjects of non-verbal predicates, e.g. predicate nominals, predicate locatives etc., as well as certain intransitive verbal predicates (discussed in depth in chapter 6) are treated morphosyntactically just like transitive objects. Such predicates have been termed $S_o$ predicates following Dixon (1979), and the subject of such predicates is termed the $S_o$. In Yagua, the devices which code 0 and $S_o$ participants are: enclitic (E), post-predicate NP, enclitic plus NP (E+NP), zero, pre-predicate pronoun (PPRO), pre-predicate noun phrase (PNP), pre-predicate noun phrase plus enclitic (PNP+E), and right-dislocated noun phrase (RDNP). The following subsections illustrate each of the coding devices for 0 and $S_o$ participants.

2.2.1. Enclitic (E)

0 and $S_o$ participants in Yagua may be coded with an enclitic attached to the last post-verbal constituent. If no constituents (other than an NP coding the 0 or $S_o$
itself) occur after the verb, the enclitic occurs on the verb itself. If a coreferential full NP also occurs, it immediately follows the enclitic (see section 2.2.3). Chart E illustrates the paradigm for O and \( S_o \) enclitics.

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>refl</th>
<th>inan</th>
</tr>
</thead>
<tbody>
<tr>
<td>ex</td>
<td>inc</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sg.  

- ráy  
- jíy  
- níi  

Dl.  

- nááy  
- wáyy  
- sáqáá  
- naádá  
- yù  
- rá  

Pl.  

- núuy  
- wáyy  
- jíryéy  
- ríy  

(no number  

| distinction |

Chart E: Forms of O and \( S_o \) Enclitics

Examples 21, 22 and 23 illustrate the enclitic device used to code O participants of verbal predicates:

(21) Ravyààta-jíy.
1SG:want-2SG  
'I like/love you.'

(22) Sa-nááyi Alchíco-ra.
3SG-press Alchíco-INAN  
'Alchíco is pressing it.'

(23) Sa-jáátya sínu-mu-níi.
3SG-toss land-LOC-3COL  
'He tosses them on the shore' (i.e. fish, hence the animate '3COL' enclitic)
As mentioned above, subjects of non-verbal predicates are treated morphosyntactically just like direct objects. Hence, they also can be coded with an enclitic. The following examples illustrate some simple predicate nominals in which the subject is coded with the enclitic device:

(24) a. Maésturu-nfí.  'He is a teacher.'
     teacher-3SG

     b. Maésturu-řiy.  'They all are teachers.'
     teacher-3PL

Examples 24a and 24b illustrate the simplest kind of predicate nominal construction. In these examples the predicate nominal is maésturu, and the subject is coded with an enclitic. In the following example the 'copula' day appears. This particle may or may not be classifiable as the same day that functions as a discourse particle (see chapter 1, section 1.2.3). It is certainly not a verb since it has none of the properties characteristic of true verbs. However, it does frequently occur in predicate nominal constructions such as 25, and so I have glossed it 'copula' following Powlison (1969) in such contexts.

(25) Tomáása báárya dárya.
     Tomáása báárya day-rá
     Tom  thing COP-INAN
     'It is Tom's thing.' (It belongs to Tom.)

In example 25 the form day is fairly strongly demanded,
though in isolation the sentence is acceptable to native speakers without the \textit{day}. In 24a and b, \textit{day} could occur immediately following the predicate nominal with no change in truth functional meaning. A detailed study of the use of \textit{day} from a discourse perspective is certainly an important area for future study.

Examples 26 and 27 illustrate the use of enclitics to code the subject of predicate locative clauses:

\begin{quote}
(26) Vóóka-ncha-níí.
cow-upon-3SG
'He is on the cow.'
\end{quote}

\begin{quote}
INAN-beside-little-now-INTS-3DL
'They (2) are right beside it now.'
\end{quote}

In example 26 the predicate locative is \textit{vóókancha} 'on the cow', and the subject is coded with the 3SG enclitic \textit{-níí}. In 27 the predicate locative is \textit{rátuunudee} 'right beside it' and the subject is coded with the 3DL enclitic \textit{-naadá}. The formative \textit{numaa} is a second position special clitic that modifies the sense of the predication. \textit{Numaa} and several other second position clitics are also used in verbal predicates (c.f. example 12a) (see Doris Payne, 1985, for a detailed discussion of clitic placement in Yagua).

In addition to non-verbal predicates, many intransitive verbal predicates in Yagua can appear with
$S_o$ coding, though $S_a$ coding is always allowed as well. For example:

(28) a. Naadasiimyaašiy rumušiy. ($S_a$)
naada-sišy-maasiy rumu-sišy
3DL-run-exit there-from
'They (2) rush out from there.'

b. Rumušiy siimyaašišaadá. ($S_o$)
rumu-sišy sišy-maasiy-naada
there-from run-exit-3DL
'From there they (2) rush out.'
(of 'Out from there rush the 2 of them'.)

In example 28a the compound verb stem siimyaašiy occurs with the VC prefix naada-, while in 28b the same stem occurs with an enclitic. Contrary to observations concerning $S_o$ coding on verbs in other languages, there is no necessary semantic difference between 28a and 28b such that 28a implies volition and control on the part of the subject whereas 28b does not. Both of these sentences clearly imply volition, action and control.

When verbs occur with $S_o$ coding they are formally parallel to non-verbal predications in that they may not indicate time reference. Certain time reference suffixes may appear on $S_o$ predicates, but the meaning of these suffixes is then no longer that of time reference. For example, consider the following:

(29) Nuufiiítq̓jášiy musajomů.
uuudy-a-j̓itq̓-jášiy musa-jo-mu
1PLEX-arrive-PROX1 descend-NOM-LOC
'We arrived (earlier today) at the port.'
In example 29 the 'PROX1' suffix jâsiy imparts the time reference of 'earlier in the day of speaking' to the verbal predicate. Notice that this is a single participant clause with the VC prefix indicating the Sa participant 'we'. Example 30, however, is an So predicate as evidenced by the fact that the single participant 'they 2' is coded with the enclitic naadâ. The PROX1 suffix in 30 does not impart time reference, but rather specifies that the location of Mocâyu's shelter was near to the place where the twins exit from. This is completely consistent with the use of jâsiy (and many other suffixes) with predicate nominals and predicate locatives. For example:

(31) Târâ-fiya jâsiy sa-tuunu-naada
long:while-NIY PROX1 3SG-side-3DL
'They 2 are there at his side a long while.'

Nota: 'They 2 were (earlier today) at his side a long while.'

(32) Târa siîva jâsiy?
târa sa-îva jâsiy
what 3SG-DAT PROX1
'What does he have there?'
(lit: What is to him there?)

Nota: 'What did he have (earlier today)?
(33) Rāju-ra mákindya-jāsiy.
    many-INAN machine-PROX1
    'Lots of machines are there.'

Not: 'Lots of machines were (earlier today).'

These formal facts illustrate that verbal predicates with $S_o$ coding have much in common with predicate nominals. However, on semantic grounds we must say that such predicates are not nominals. Specifically, there is no sense in which example 28b can mean 'there are the rushed out ones'. The stem siimaasyiy can only be interpreted as a verb in that 1) it cannot fill the role of a noun phrase, e.g. subject or object, in a clause, and 2) it must take nominalizing suffixes in order to fill such a role. This is true for all verbs that can occur with $S_o$ coding.

The use of a locative demonstrative (rumusiy in example 28b above) correlates highly, but not absolutely, with the presence of $S_o$ coding. Example 34 illustrates an $S_o$ verb with the locative demonstrative mūuy:

(34) Mūuy kinchunuveejāsiyiy.
    mūuy kinchu-nuwee-jāsiy-riy
    there light:fire-ARR2-PROX1-3PL
    'There upon arrival they light a fire.' (KT57)

Occasionally, however, verbs occur with $S_o$ coding without a preceding locative demonstrative:

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(35) Siiryi‘daññi\textsuperscript{ii} koodidy\textsuperscript{ee}.
si\text{-}iy\text{-}ri\text{-}i\text{-}day\text{-}ni\text{-}i koodiy\text{-}dee
run\text{-}in\text{-}passing\text{-}immediately\text{-}3COL\‘ snake\text{-}DIM
'Immediately the little snakes' scurried.'

(36) Kuutya\text{-}nuvaa\text{-}ni\text{-}i,  
whisper\text{-}ARR2\text{-}3SG  
'He whispers on arrival, . . .'

In summary, we have seen that enclitics are used to
code three general classes of participants: 1) objects of
transitive verbs, 2) subjects of non-verbal predications
such as predicate nominals and predicate locatives, and 3)
subjects of certain intransitive predicates based on
verbal stems but sharing many features of non-verbal
predicates. Several interesting observations and
hypotheses emerge from these data on $S_o$ clauses. These
hypotheses will be explored and a quantitative discourse
based study of $S_o$ coding on verbs will be undertaken in
chapter 6.

2.2.2. Post-predicate NP (Post- NP)

A full post-predicate NP may code an O or $S_o$
participant, in which case an enclitic is 'optional' from
a sentence grammar perspective. The following examples
illustrate the simple post-predicate NP device with no
coreferential enclitic:

(37) S\text{"a}nt\text{"u} buy\text{"a}g.  'S/he drinks manioc beer.' (O)
sa\text{-}jatu buya\text{"a}
3SG\text{-}drink manioc\text{:}beer
(38) Jiryimimyáá raryáávatá.
jiy-rimiy-maa ray-rááva-ta
2SG-spill-PERF 1SG-poison-partitive
'You spilled part of my poison!' (O)

2.2.3. Enclitic plus NP (E+NP)

However, the enclitic can co-occur with a coreferential NP. This I will term the E+NP device:

(39) Sa-suutá-ra sújAY.
3SG-wash-INAN clothes (O)

(40) Maesturu-níí Alcides.
teacher-3SG Alcides (S_o)

'Alcides is a teacher.'

When the E+NP device is used, the NP always immediately follows the enclitic, and no constituent may intervene between the enclitic and the coreferential NP. These facts constitute evidence that the enclitic forms a constituent with the following noun phrase, even though it is phonologically attached (cliticized) to whatever word precedes. It is suggested in T. Payne (1983a) that the difference between the E+NP and NP constructions has to do with definiteness -- the enclitic is used for definite O_s and is not used for indefinite O_s. However, there are clear cases where definite O_s are coded without the enclitic and where indefinite O_s are coded with the enclitic. For example, possessed O_s occur with or without the enclitic in about the same proportions. This fact would not be expected if the presence of the enclitic were strictly dependent on definiteness of the O, since
possessed NPs are overwhelmingly definite (see, e.g., Du Bois, 1980:208). Example 41a illustrates the use of a possessed 0 nominal without a preceding enclitic and 41b illustrates a possessed $S_o$ nominal without the enclitic:

(41) a. Saryey jiįta-0 jįchikidiį.
    sa-ryey jiįta-0 jį-y-sikidiį
    3SG-grab JIITA-0 4-intestines
    'He grabs his own intestines.' (TC519)

b. Mǔũhumaatėé-0 rájaachéy.
    mǔy-numaa-tēé-0 rá-jaay-say
    there-now-INTS-0 INAN-heart-CL:tree
    'There now is its (the tree's) heart.' (TC327)

Example 42 illustrates that the E+NP device can be used to code indefinite participants. In this example the coca leaves have not been previously mentioned in the discourse, and the likelihood that they have been implicitly mentioned, or are perpetually identifiable is minimal. Therefore we conclude that the leaves are indefinite in the sense of Du Bois (1980), Chafe (1976) and others. And yet in this sentence the enclitic is used:

(42) Saruuyéerya japatíy.
    sa-ruuy-yęę-y-rà japatiy
    3SG-roast-DIST-INAN coca
    'He is roasting coca.' (TC536)

In chapter 4 we find a more satisfactory explanation for the use of the E+NP device in the notion of 'referentiality' (Du Bois, 1980), Persistence (Givón, 1983a,b,c), 'discourse manipulability' (Hopper and
Thompson, 1984), or 'deployability' (Jaggar, 1985), briefly, the simple post-predicate NP device is used for O and $S_o$ participants that do not persist on the discourse stage, i.e. they are not 'destined', as it were, to figure prominently in the immediately ensuing discourse. The E+NP device, on the other hand, is used for participants that will persist for a greater span of text. Quantitative data supporting this claim are presented in chapter 4, section 4.6.2.3.

2.2.4. Zero

It is difficult in principle to precisely determine whether or not a given construction which might conceivably code an O or $S_o$ participant with a zero is in fact doing so. For example in every language there are verbs, such as 'eat,' which commonly occur with or without an overtly expressed O participant. In many cases it is difficult to tell whether a given instance of such a verb makes covert mention of some O or not. The same is true for Yagua, though the situation is further complicated by the fact that subjects of predicate nominals are always $S_o$s. Thus nearly any noun can potentially be a predicate nominal with a zero $S_o$ subject. For example:

(43) Naada-júú-vay vátanu,
3DL-hunting:blind-make thick
'They made a thick hunting blind,'
vátanu juu-dee-ntiy,  
thick hunting:blind-DIM-REP  
a little thick one too.'

The second portion of this sentence is either a simple NP meaning 'little thick hunting blind also' or a predicate nominal with zero subject meaning 'it is a little thick hunting blind also.'

For purposes of this dissertation I have elected to be as conservative as possible in postulating zero realizations of O and S_0 participants, short of ignoring them altogether. First, I will not consider zero realizations of S_0 participants at all, whether they be subjects of predicate nominals or of S_0 verbs (see section 2.2.1). In 43, for example, I interpret the part that follows the comma to be a simple NP interjection.

Second, there are certain sentences, however, in which it is clear that there is a specific, referential, object that is being acted on, and yet is not coded by any overt coding device. In particular, some verbs allow three core participants, two of which are coded as Os. Traditionally these two Os would be termed the direct and indirect objects. However, quite often one of the Os, always the patient rather than the recipient, is not coded at all. For example, the following two sentences are a conversational exchange in which speaker A wants speaker B to give him something (a blowgun). The blowgun is coded
with the appropriate enclitic in 44a, but receives no overt mention in 44b:

(44) a. Yąqąŋ sax-y rérya.  
yi-ąŋ sax-y réy-râ  
2SG-IRR give 1SG-INAN  
'Give it to me!'

b. Nëé rachāŋyŋiy-o.  
nëé ray-sax-y-rûŋy-jîy  
NEG 1SG-give-POT-2SG  
'I don’t want to give (it to) you.'

I interpret 44b as containing a zero reference to the blowgun.

There are a few other instances in which I feel it necessary to postulate a zero reference to an object. These are all instances where a specific object is clearly implied. Usually, if not always, there are other verbs in the immediate context that describe actions applied to the participant in question, and which do contain overt reference to that participant. For example, the following excerpt describes a very typical Yagua scene. A hunter brings home some game birds to be prepared for supper. In 45a and 45c the birds are referenced with the appropriate enclitic. In 45b no overt coding is used, though the semantics of the verb make it clear that the game birds are the object of the verb:

(45) a. Riryąŋstya jiįta samoomusifii.  
riy-rąsitya jiįta sa-moo-mu-siy-nîi  
3PL-defeather JIITA 3SG-face-LOC-from-3COL  
'They defeather them before his arrival.'
b. Riryámutá-Ø.
   riy-ramuta
   3PL-eviscerate
   'They eviscerate (them).'

c. Rimyutiye jëita përijejyagmunii.
   riy-mutiye jëita përiy-jay-jaŋ-mun-Ø
   3PL-cook JITA palm:fruit-skin-liquid-LOC-3COL
   'They cook them in palm fruit peel water.'

I consider 45b as containing a zero reference to the birds as a direct object.

2.2.5. Pre-predicate Pronoun (PPRO)

As mentioned in section 2.1.5, free pronouns are relatively uncommon in natural Yagua discourse. The following examples illustrate some Ø and S₀ participants coded with the pre-predicate pronoun device:

(46) Rũniy jëita vuryaŋ kàsiy.
   riy-niŋ jëita vuryaŋ kàsiy
   3PL:PRO-NIY JITA 1PLINC-IRR finish:off
   'THEM we will finish off!' (Ø)

(47) Nĩniy Jesu samirya jamikyu Ṧũjyuŋ.
    nũ-ŋiŋ Jesu samirya jamikyu Ṧũj-ỹŋ
    3SG:PRO-NIY Jesus good friend 1PLINC-for
   'JESUS is a good friend for us.' (S₀)

Pre-predicate pronouns that code Ø or S₀ participants are always followed either by the semantically empty -niŋ (see section 2.1.5) or one of a small set of suffixes that add certain adverbial and modal shadings to the clause, as in the following:
(48) Nįį-numaa jįįta maésturu.
3SG:PRO-now JIITA teacher
'HE is now a teacher.' (S₀)

(49) Naada-nta rimaryá.
3DL:PRO-seem witch
'SHE seems to be a witch.' (S₀)

2.2.6. Pre-predicate NP (PNP)

0 and S₀ participants are sometimes coded with a
pre-predicate noun phrase. Examples 50 and 51 illustrate
this device used to code 0 participants, while 52
illustrates the same device used to code an S₀
participant:

(50) Rikya rąq jünúdyiy
rikya raq-ą jünúdy-díy
net 1SG-IRR look:at-priority
'The net I need to go look at.' (0)

(51) Suvqq riiváay, suvqq.
suvqq ri-jivaay suvqq
string:bag 1SG-make string:bag
'A string bag I'm making, a string bag.' (0)

(52) Tomáása maésturu. 'Tomás is a teacher.' (S₀)
Tomás teacher

Were example 52 an equational construction (i.e.
'Tomás is the teacher' / 'the teacher is Tomás') there
would be no grounds for calling one member of the equation
the subject and the other the predicate. However, the
most natural meaning of this clause is one of 'set
membership'. That is, Tomás is understood to be a member
of the set defined by 'teacher'. In these constructions
the pre-predicate noun phrase remains part of the
predication, is not set off by an intonational break, and is not recapitulated with an enclitic within the clause.

2.2.7. Pre-predicate NP plus enclitic (PNP+E)

However, pre-predicate noun phrases can be recapitulated by coreferential enclitics if the NP is separated from the predication by an intonational break. The following examples illustrate this PNP+E device for 0 participants (examples 53 and 54), and $S_0$ participants (example 55):

(53) Váte, saruvemaantíííí.
   váte sa-ruve-maa-ntiy-níí
   'Another bobwhite, he halved it.' (0)

(54) Ratywwoonú muríchiirvá,
    ray-tùchu-janú muríchiir-ra
    1SG-tell-PART cost-NOM:INAN
    'My telling price, (money to be given in exchange for information.)

    yá saŋtyéé rárya.
    yi-a saŋy-téé ray-rá
    2SG-IRR give-INTS 1SG-INAN
    you will give me it!'

(55) Jirva mákina, Judeenú baárya dárya.
    ji'-ra mákina Judee-nu baárya day-rá
    demo-CL:NEUT machine create-NOM thing COP-INAN
    'This machine belongs to God.' ($S_0$)
    (lit: 'This machine, God's thing it is.')
2.2.8. Right-dislocated noun phrase (RDNP)

A right dislocated NP can be used to recapitulate any previous mention of an O or S_0 participant in a clause. This marked coding device is commonly used for added detail as in examples 56 and 57:

(56) Ṛuṭācharanī muriñuvija, pipityū.
    riy-jutáy-sara-ni muriñuvija, pipityū
3PL-say-HABIT-3C0L mojarra:fish large:mojarra:fish
'They always call the mojarra fish, the large mojarra fish.' (O) (TC455)

(57) Néé sámirya sa-jáy váácha, vásunuú-jáy.
    NEG good 3SG-skin huapo:monkey blue-skin
'The huapo monkey's skin is no good, blue skin.'
(S_0)

2.3. Possessor Coding

There are three common coding devices for possessors with respect to their possessed items: head coding (HC), NP and head coding plus NP (HC+NP). The following subsections illustrate the three coding devices used for possessors.

2.3.1. Head coding (HC)

The head coding prefixes are identical to the verb coding prefixes presented in section 2.1.1, chart A. The conjugation classes mentioned in that section are applicable to nouns as well as verbs.
(58) Vuyjééy. 'Our father.'
    vuy-jééy (Class I)
    1PLINC-father

(59) Raryooríy. 'My house'
    ray-rooríy (Class I)
    1SG-house

(60) Saqanáa. 'His finger.'
    sa-qanáa (Class II)
    3SG-finger

(61) Ra-qaséé. 'My hatchet.'
    ray-jaaséé (Class II)
    1SG-hatchet

(62) Vuryíjchantú. 'Our (inc) paternal aunt.'
    vurya-jíchantú (Class III)
    1PLINC-paternal:aunt

(63) Ríryupóó. 'My uncultivated garden.'
    ray-jiyyupóó (Class III)
    1SG-uncultivated:gardent

(64) Suynoodá. 'His/her mother.'
    sa-juynooda (Class IV)
    3SG-mother

(65) Naadidántá. 'Their (2) medicine.'
    naada-judántá (Class IV)
    3DL-medicine

2.3.2. NP

Possessors with respect to their heads are analogous to subjects with respect to verbs in that if the possessor is expressed with a full noun phrase occurring before the head, head coding is disallowed:

(66) Tomáása rooríy 'Tom's house'
    Tom
    house

*Tomáása sarooríy
2.3.3. HC+NP

However, head coding can co-occur with the overt expression of a coreferential possessor NP if that possessor is placed after the head:

(68) Sa-rooriy Tomáása
     3SG-house Tom

(69) Naada-duudu sa-vaturiy
     3DL-flute 3SG-woman

'Tom's house'

2.4. Oblique Coding

Obliques are coded with exactly the same set of coding devices as are possessors: HC, NP, and HC+NP. The head of an oblique nominal is the postposition indicating its semantic role. In the following subsections, examples of each of the coding devices used for postpositions are illustrated.

2.4.1. Head coding (HC)

Like nouns, post-positions also fall into the same conjugation classes as do verbs. The following examples illustrate some simple postpositional phrases where the
participant is coded with an HC prefix on the post-position:

(70) Rā-tqaṣā
INAN-middle
'In the middle of it.'
(Class I)

(71) Saqrīy
sa-jariy
3SG-underneath
'Underneath him.'
(Class II)

(72) Suṣṣīy
sa-jusīy
3SG-from/after
'From/after him.'
(Class IV)

2.4.2. NP

Like subjects with respect to their verbs, possessors can occur as full NPs immediately preceding their possessed nouns. In such a case an HC prefix may not occur on the possessed noun:

(73) Nū tqaṣā
path middle
'In the middle of the path'

(74) Taqrā rudamū sayasīy?
ra taqrā rudamu sa-jiya-siy
what day-LOC 3SG-go-PAST1
'On what day did he go?'

2.4.3. HC+NP

When HC does occur on a possessed noun, a full NP referring to the possessor may follow:

(75) Rā-tqaṣa sa-moo-mu-dāy
INAN-middle 3SG-face-LOC-DAY
'Right on his face.'
(76) Rineechó munuñümìy 'Towards the savages
riy-naachó munuñu-mìy
3PL-towards savage-PL

These examples show that postpositional phrases are isomorphic with possessive constructions. In some cases stems which are clearly nouns are used in postpositional phrases to modify the sense of the relation being expressed. For example the stem moo 'face/forehead' illustrated in example 71 is used in combination with postpositions to impart the sense of 'in front of.' For example, contrast the a and b examples below:

(77) a. Sa-moo-mù  'In front of him'
    3SG-face-LOC    (lit: 'at his face')

   b. Siimù   'On him' or 'at his house.'
    sa-jimù
    3SG-LOC

(78) a. Sa-moo-mù-sìy 'Away from where he is headed.'
    3SG-face-LOC-from    (lit: 'away from his face')

   b. Siimusìy 'Away from him'
    sa-jimu-sìy
    3SG-LOC-from  (implies he is not moving)

2.5. Summary

In this chapter I have illustrated the various devices used to code participants in Yagua. The chapter has been divided into four sub-sections, each dealing with the coding devices used for a particular class of participants. The four classes considered are A and S_a participants (section 2.1), O and S_o participants (section
2.2), possessors (section 2.3) and obliques (section 2.4). In section 2.5.1 I will outline some difficulties inherent in this classification of the coding devices, and will attempt to justify the groupings that I have made. In section 2.5.2 I will briefly discuss the formal and functional similarities between pronouns, prefixes and enclitics, and will defend my operational decision to keep them distinct.

2.5.1. Parallels between subjects, possessors and obliques

I have classed A with $S_a$ and 0 with $S_o$ because these classes each utilize an identical set of coding devices. Were this criterion applied equally to possessors and obliques, then the latter two categories would also have to be grouped into one larger class, since possessors and obliques also utilize an identical set of coding devices (HC, NP and HC+NP). I have chosen to keep possessors and obliques distinct because of their semantic dissimilarity and in order to facilitate the presentation of the data.

As we have seen, the HC prefixes for possessors and obliques are identical to the VC prefixes for verbs. Furthermore, for verbs, possessed nouns and postpositions alike, prefixes can co-occur with a coreferential NP only if that NP follows the verb, possessed noun or postposition. Subject, possessor and oblique NPs occurring in the absence of a coreferential prefix must
precede their verbs, possessed nouns or post-positions. Thus, in terms of sets of coding devices, there is a high level similarity between the possessor/oblique category and the $A/S_a$ category, as opposed to the $O/S_o$ category. At this level of generality there are only two classes, 1) the class represented by $A$, $S_a$, possessors and obliques, and 2) the class represented by $O$ and $S_o$ participants. The only difference between the set of coding devices used for possessors/obliques and that used for $A/S_a$s is that $A$ and $S_a$ participants can be coded with PPRO, the right dislocated devices and zero in addition to the 'basic' devices, whereas possessors and obliques can only be coded with three 'basic' devices, HC, NF and HC+NP. This hierarchical pattern of similarities is schematized in chart F:
<table>
<thead>
<tr>
<th>Category</th>
<th>Coding devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>A participants</td>
<td>VC, NP, VC+NP, etc.</td>
</tr>
<tr>
<td>[S_a] participants</td>
<td>VC, NP, VC+NP, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Possessors</td>
<td>HC, NP, HC+NP</td>
</tr>
<tr>
<td>Obliques</td>
<td>HC, NP, HC+NP</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>O participants</td>
<td>E, PostPNP, E+PostPNP, etc.</td>
</tr>
<tr>
<td>[S_0] participants</td>
<td>E, PostPNP, E+PostPNP, etc.</td>
</tr>
</tbody>
</table>

Chart F: Patterns of similarities between coding possibilities for various classes of participants
2.5.2. Pronouns, prefixes and enclitics

Another observation made concerning the coding devices is that the prefixes used to code subjects, possessors and obliques, as well as the enclitics used to code 0 and $S_0$ participants, are very similar to the free pronouns in form. In fact, the enclitics and the pronouns are virtually identical in form (see charts B and C). The prefixes differ from the pronouns most substantially in the third person singular, whereas in the other persons and numbers the difference is only in tone. Because of the formal identity between free pronouns and enclitics, there is a question of whether these two sets of forms are not really better considered to be the same. Another argument for lumping enclitics and pronouns in the same class is that it is very uncommon for an enclitic and a distinct post-predicate pronoun to co-index a participant in the same clause. The few examples I do have of this phenomenon may well be due to hesitation or stammering on the part of the speaker, or misanalysis of clause boundaries on the part of the analyst. Speakers will not easily produce sentences with an enclitic and a coreferential pronoun in elicitation. Thus I conclude that enclitics and pronouns are in complementary distribution.

In spite of these facts, I have chosen to treat enclitics and pronouns as distinct because of two characteristics of enclitics: 1) when phonological
cliticization is possible (i.e. when the 'structural
descriptions' for the phonological processes that provide
evidence for cliticization are met) enclitics clearly
attach to other elements, i.e. they are 'bound' morphemes,
and 2) an enclitic may occur with a coreferential noun
phrase (section 2.2.3), and in fact forms a syntactic
constituent with that noun phrase. Neither of these
characteristics is expected for the class of devices
usually falling under the definition of 'pronoun' in
linguistic tradition. In particular, both characteristics
are usually associated with 'agreement' phenomena.

There is no doubt that the pronouns, the prefixes and
the enclitics are etymologically related, as they
certainly all share functional as well as formal
characteristics. In the ongoing process of diachronic
change we see that the enclitics are losing the
characteristics of free anaphors and are becoming more
like the 'bound anaphora' of Givón (1983a), though they
have not yet acquired all the characteristics normally
associated with 'agreement', i.e. they attach to units of
any category, not just to verbs, and they are not
obligatory, even when a coreferential NP occurs in the
clause. Thus these enclitics illustrate the non-discrete
nature of syntactic categories. They are neither
prototypical pronouns, nor prototypical agreement markers.
Rather they share characteristics of both.
FOOTNOTES to chapter 2

1. Forms from the paradigm represented in chart C will always appear as prefixes. Therefore in the gloss line of examples, any gloss such as '3SG', '1PLINC', etc. which glosses a prefix refers to a form from this paradigm. On verbs such prefixes always code the subject (A or S), on nouns the same prefixes code possessors, and on postpositions the same prefixes code the object of the postposition. Occasionally a pronoun (see chart D) will appear with an enclitic attached. In order to distinguish such pronouns from the forms illustrated in chart C, the gloss 'PRO' will always accompany person and number specification of pronouns, e.g. '3SG:PRO'. I will simply rely on linear order to distinguish the forms in chart C from those in chart E -- forms appearing as prefixes are from chart C, those appearing as enclitics are from chart E.

2. The form vurya for the 1st person plural/dual inclusive is the allomorph regularly used for class II, III and IV stems.

3. In Yagua, placentas and uteruses are almost always expressed as possessed noun phrases. Contrary to what may seem natural from an English point of view, the possessors
of these items are the children that are born with the placenta, or which come from the uterus. To refer to a person's uterus is to refer to the uterus from which that person was born, even if that person is a full grown woman, and even if she happens to be pregnant. To refer to the uterus that is located inside a woman's body, one must refer to her child's uterus, even if she has never had a child and/or is not currently pregnant. In the text from which example 7 is taken, the placenta transforms into a human being and becomes a central character. As such the term munāā 'placenta' comes to be used as a proper name, and is therefore not required to be possessed. However, whenever it is possessed, it is possessed by Placenta's elder brother, i.e. the child that was born with the placenta.

4. Full NPs referring to intransitive subjects do occasionally occur postverbally without a coreferential prefix on the verb. However, the use of this coding device has much in common with $S_0$ coding (see section 2.2.). Quite independently from their defining characteristics based on subject coding devices, clauses which employ $S_0$ coding have many features of non-verbal predication, as demonstrated in section 2.2.1.

5. The verb translated here 'find' is the same as that
elsewhere translated 'see'. Though the semantic similarity between these two concepts is obvious, in this particular case it seems more appropriate to use the translation 'find'. This construction has much in common with $S_o$ verbs of locomotion as discussed in chapter 5. However, it doesn't strictly qualify as such a verb since there is no overt coding of the subject. Thus it is technically impossible to say whether $S_a$ or $S_o$ coding is involved here. However, since $S_a$ is the unmarked configuration for subjects of single participant verbs, I have considered this example to illustrate zero as a coding device for the $S_a$ role.

6. The form -day is an enclitic that appears at or near the end of a clause, and has various functions. Its function when attached to an NP or pronoun is to indicate contrastive focus or emphasis, as in example (15). -Day has several other functions, many of which are probably best described as operating on a discourse level. Much research needs to be done on -day (and the other discourse particle, jii-ta) in order to determine its exact meaning.

7. It is a general principle of Yagua discourse that one avoids the use of fully-specified noun phrases as much as possible, allowing the rich participant coding system to keep participants sorted out. Only in marked contexts, or
to avoid ambiguity, are fully-specified noun phrases used. One strategy for avoiding the use of fully-specified noun phrases is to treat one plural participant as singular when two groups are interacting. In such cases it is the most topical group that is treated properly in terms of its semantic plurality, while the other group is treated as singular. For example, if adults and children are interacting, the adults will be coded as plural, while the children singular. If humans are interacting with animals, the humans will be plural and the animals singular. If 'good guys' are interacting with 'bad guys' (as is often the case in folkloric history narratives) it is predictably the 'good guys' which are treated as plural while the 'bad guys' are treated as singular:

(79) Rityęrgyá rumusiy váriy, riy-tagarya rumusiy váriy 3PL-return from:there then 'They (good guys) returned from there,

sasiityátiyiyanuntiryíy.
sa-siiy-ta-títyiy-janu-ntiy-riy 3SG-run-TRNS-going-PAST3-REP-3PL they (savages) chasing them again.'

In this example the savages are treated as singular in the second clause even though they are obviously a group of people and in other examples in the same story are treated as plural. The people being attacked (the clan to which the narrator belongs) are treated as plural. The 'good guys' as a group are never treated as singular. This
bending of the categories plural and singular is a very obvious feature of Yagua narrative, and is clearly used in order to avoid the use of fully-specified noun phrases.

8. One interesting and apparently unique aspect of the Yagua participant coding system is the use of second and third person dual forms to code women who have had children:

(80) Naaniitáy naadíiva jíryeenu vatury,  
naana-jitay naana-íva jiy-reenu vatury  
3DL-say 3DL-DAT 4-kinsman woman  
'She says to the other woman,  
'saaníduutyatáatiyu.'  
saana-jíduuya-táta-yu  
2DL-get:ready-should-REFL  
"you should get yourself ready."'

In this example the woman who is speaking is coded with third person dual forms, and she in turn addresses the other woman with a verb in the second person dual form. This use of special forms to code women who have had children is a pervasive aspect of Yagua, being manifested not only in the participant coding system but also throughout the kinship system, i.e. special terms are used for nieces, aunts, sisters, sisters-in-law, etc. who have had children. In terms of participant coding, however, it could be viewed as another strategy for avoiding the use of fully-specified noun phrases in that the more distinctions that are handled by the participant coding
9. The observation that non-third person singular prefixes are identical to pronouns except for tone applies only to the Class I or 'regular' stems. In the other classes, a prefix forms vary more significantly from the pronominal forms (see, e.g., footnote 2 to this chapter).
3. Chapter 3: Coreference Phenomena

3.1. The Fourth Person

There is a special category, realized by the verb/head coding formative $jìy-/yì-$, which indicates that the participant being coded is coreferential with a recently mentioned participant. In most cases the antecedent of $jìy-/yì-$ is the A or $S_a$ of the preceding verb, possessor of the preceding possessed noun phrase, or object of the preceding post positional phrase. However, this constraint is by no means categorical. Except in indirect discourse, verbs with $jìy-/yì-$ are grammatically dependent as discussed briefly below. This category is referred to here as the fourth person, a borrowing from the terminological tradition of Eskimo-Aleut linguistics (Hammerich 1976:55, T. Payne 1980). The fourth person in Yagua differs slightly from other fourth person systems in that, at least in some dialects, semantic first and second persons may also be coded with the fourth person form. However, in the downriver dialects the fourth person form is restricted to semantic third persons. The fourth person is most commonly used with possessed noun phrases:

(81) Nū́dyeeyanumáá $jìrýoörýyùjù$.  
Nū́dya-jiya-numáá $jìy-rooiry-ùjù$ 
1PLEX-go-now 4-house-LOC-DIR  
'We are going to our house.' (upriver only)
(82) Sapụ́chińií Anita jíyoorimyújú.
sa-pụ́chiy-níi Anita jíy-rooriy-mu-jú.
3SG-carry-3SG Anita 4-house-LOC-DIR
'He$_i$ carries Anita to his$_i$ house.'

The fourth person prefix always follows its antecedent. If a possessed noun phrase occurs before a verb whose third person subject is the possessor, the noun phrase will receive the normal possessor marking and the verb will receive jíy-/yí-:

(83) Saroorimyújú jípyúchińií Anita.
sa-rooriy-mu-jú jíy-pụ́cchiy-níi A.
3SG-house-LOC-DIR 4-carry-3SG Anita
'In his$_i$ house he$_i$ carries Anita.'

(84) Satááryíyvasiy jífuvay ..
sa-tááryí-íva-siy jíy-nuvay
3SG-brother-dat-for 4-mourn
'For his$_i$ brother he$_i$ mourns.' (FSQ27)

Also, an object of a postpositional phrase can antecede a fourth person prefix:

(85) Naaniinchájú jítyiryọ saviimú koodíy.
naada-jinchajú jíy-tiryọ sa-viimu koodíy
3DL-upon 4-lie 3SG-inside snake
'They 2 lie on top of each other inside the snake.' (FSQ64)

Here two animals have been swallowed by a snake. They are coded in the postpositional phrase naaniinchájú 'on top of them' and then again with the fourth person marker as the subject of the verb.

However, in cases where both a VC and a HC prefix compete to antecede a given instance of the fourth person, the VC (i.e. the subject rather than the possessor
or oblique participant) will normally win out. Oddly enough, such situations are not particularly difficult to find in texts:

\[(86) \text{Pariché sarcoatyatéé} \quad \text{siiyusírya} \]
\[
\begin{array}{ll}
\text{pariche sa-rooy-ta-téé} & \text{sa-jimu-siy-rà} \\
\text{finally 3SG-break:loose-TRNS-INTS 3SG-LOC-from-inan} & \\
\end{array}
\]

\[
\text{jìdyúuudúú.} \quad \text{(TC135)}
\]
\[
\text{jìy-duuduu} \\
\text{4-flute}
\]

'Finally he\(_i\) breaks his\(_i\) flute loose from him\(_j\).'

\textbf{Note:} 'Finally he\(_i\) breaks his\(_j\) flute loose from him\(_j\).'

Here the fourth person prefix occurs on the NP \text{duuduu} 'flute'. The interpretation whereby the possessor of the flute is coreferential with the object of the postposition in \text{siiyusírya} is impossible, even though this was the last HC prefix that occurred before the fourth person marker. The antecedent must instead be the subject of the main verb, as the gloss indicates.

Most verbs which take \text{jìy-/yi-} are dependent in that they cannot be inflected for time reference. It might be argued, therefore, that such verbal forms with \text{jìy-/yi-} are in some sense nominalizations, since nouns (even predicate nominals) cannot be inflected for time reference. This argument is especially convincing when the stem to which \text{jìy-/yi-} is attached can also be interpreted as a noun:
(87) Sadjifumáa j'j'eechii j'qanumú
sa-diiy-numaa j'j'yaachii j'qanumu
3SG-die-now 4-hunger because
'He's dying of hunger.' (or: 'He's dying because he i
hunger,' or 'He's dying because of his i hunger."
However, in indirect discourse, fully-inflected verbs

\( j'iy-/y'ii- \):

(88) Suju'téésiy \( \text{vá} \) jiyá.
sa-jutay-jásii yi-a jiya
3SG-say-PROX1 4-IRR go
'He i said that he i will go.'

(89) Suju'téésiy jiyasiy.
sa-jutay-jásii jiy-jiya-sly
3SG-say-PROX1 4-go-PAST1
'He i said (today) that he i left (a few months ago).'

3.2. Reflexivity/Reciprocity

The enclitic \(-yù\) is used to code third person 0
participants which are coreferential with a preceding A,
\( S_a \) or possessor. In the upriver dialects \(-yù\) may code
first and second person dual and plural 0s as well. Thus
when used in simplex constructions \(-yù\) indicates
reflexivity or reciprocity:

(90) Suunjumivachiyu.
\( \text{sa-junjumivay-sly-yù} \)
3SG-paint-PAST1-REFL
'He painted himself.'

(91) Ruuvamúuyanuyu.
\( \text{riy-juvy-núuy-janú-yù} \)
3PL-kill-CONT-PAST3-REFL
'They were killing each other.'

However, \(-yù\) can also occur in constructions with
possessed nouns to code 0 participants which are coreferential with the possessor:

(92) Suumutyo jììta naandaanúyu
    sa-jumutyo jììta naana-daɑ-nu-yu
3SG-answer JIITA 3DL-little-person-REFL
     'Her_i son answered her_i'

Example (92) is technically ambiguous since the -yù can be interpreted as coding either the subject of the clause or the possessor of the subject noun phrase. That is, (92) could mean 'Her son answered himself.' This reading, however, is pragmatically much less likely than the one indicated above.

Another use of the -yù enclitic is with the verb jutay 'say' to mean roughly 'say of oneself,' or 'call oneself.' For example:

(93) Sûçtay pucájuyáyu.
    sa-jutay puca-ju-dáy-yu
3SG-say water:turtle-for-DAY-REFL
     He calls himself a water turtle.' (TC437)

Regardless of the order of the possessed noun phrase with regard to the verb, -yù, like all enclitics, always occurs after the verb, though not necessarily attached to it:

(94) Saroorimyù sùuvásiyu.
    sa-roori-yu mu sa-júva-si-yu
3SG-house-LOC 3SG-strike-PAST1-REFL
     'In his_i house he_j struck him_i.'

Example (94) could mean 'in his_i house he_j struck
himself. However, the reading indicated above is pragmatically more acceptable.

Both jîy-/yî- and -yû can occur in the same clause to indicate 3-way coreference:

(95) Saroorimû jîchûyû.
     sa-roorîy-mû jîy-sûy-yû
     3SG-house-LOC 4-bite-REFL
     'In his house he bit himself.'

Like jîy-/yî-, -yû is not used with first and second person singular referents, and in the downriver dialects is not normally used with first and second person dual and plural referents either. To indicate reciprocity or reflexivity when first or second persons are involved, the regular enclitics are used:

(96) Rîjnûryêy.
     ra-jînûdy-rây
     1SG-look:at-1SG
     'I look at myself.'
     (all dialects)

(97) Jîrya jûvây jîrîyê.
     jîrîyê-a jûvay jîrîyê
     2PL-IRR kill 2PL
     'You'll kill each other.'
     (downriver dialects)

3.3. The restrictions on antecedents

There are two possible hypotheses regarding the conditions under which a participant can antecede either a reflexive enclitic or a fourth person prefix. In this section I will show that a strictly morphosyntactic restriction is not sufficient to delimit the class of participants that can antecede one of these markers. My
conclusion is that we must appeal to the pragmatic notion of topicality in order to adequately account for these data. The most highly topical participant is the preferred antecedent for a reflexive or fourth person marker. In most cases this pragmatic category corresponds to a morphosyntactic category, since morphosyntactic categories are founded on pragmatic and cognitive bases. Some evidence will be provided showing that there is a tendency towards grammaticization of the restriction on antecedents to a specific morphosyntactically defined category. Analysis of actual texts, however, reveals that this tendency is still far from absolute. In the following paragraph I will outline the two morphosyntactically-based hypotheses regarding what can be the antecedent on one of these markers, and will show that each is insufficient to account for all the observed data.

The first morphosyntactically-based hypothesis is hinted at in section 3.1, and is made explicit in 98:

(98) The most recently mentioned A, S, possessor or head of a post-position can antecede a reflexive or fourth person marker.

This hypothesis accounts for most of the data, but is violated by sentences such as 98 where a subject (in this case an A) overrides a more recently mentioned possessor for interpretation as the antecedent of jìy-. Thus a second hypothesis is suggested:
(99) The most recently mentioned subject will antecede a reflexive or fourth person marker. If there is no previously mentioned subject in the clause, then the previously mentioned possessor or head of a postposition will be the antecedent.

However, this restriction does not account for all the data either, as the following example from the Twins Cycle shows:

(100) Nîi-niy sa-táaryî-têê sa-sââ-yu. 3SG-NIY 3SG-brother-INTS 3SG-give-REFL 'Hisî BROTHER hej gives to himî.' (TC506)

(or 'It's hisî BROTHER hej gives to himî.')

In this example the reflexive enclitic codes the recipient of the ditransitive verb saay 'give'. The antecedent of this enclitic may not be the subject of the clause, but must be the possessor of the pre-verbal patient nominal.

Example 100 uses the preverbal pronoun strategy, with a recapitulating pre-verbal noun phrase to code the patient. This strategy is used to code contrastiveness as discussed in chapter 6. The reference of táaryî 'brother' in this case is established with respect to the possessor, Elder Brother, who has figured very prominently (or is highly topical, see chapter 4) in the preceding discourse and who is, of course, a central character of the entire story.

Another example that even more clearly violates hypothesis 99 occurs in another text:
(101) Nii-niy jiita sąaṛa yỉ-saṛa-ju.  
3SG-NIY JIITA serve/be:sufficient 4-COM-for
'HE will serve as his companion.'
(Lit: 'HE_i will serve to be with him_j.'

In this example the subject cannot antecede the fourth person prefix, even though there are no competing possessors or heads of post-positions within the clause. Here the antecedent of the fourth person prefix lies outside the clause entirely.

Examples such as 101 are not particularly uncommon in oral discourse, though they tend to be weeded out in the transcription process even by native speakers. Another example occurs in a second version of the Twins Cycle, recorded, transcribed and translated by a native speaker. Example 102 is the transcribed version including the preceding clause, while 103 is the relevant sentence as it actually is uttered. In these examples A and B refer to two interactants. A is a member of the audience, and B is the storyteller:

(102) A: Naani-idátya?  
3dl-suspect
'Does she suspect?'

B: Jóó. Naani-idátya-nikyée . . . (as transcribed)
yes 3dl-suspect-say
'Yes. She suspects saying . . .'

(103) B: Jóó. Yì-dátya-nikyée . . . (as uttered)
yes 4-suspect-say
'Yes. She suspects saying . . .'

This replacement of the fourth person prefix with third person forms when the morphosyntactic constraint
represented by hypothesis 99 is violated occurs several times in this transcription. It appears that the transcriber, who is being unusually careful and conscious of his language and who has time to edit, prefers a morphosyntactic constraint to a pragmatic one. In isolation sentences such as 103 are felt to be unnatural to most speakers, and yet such sentences are an obvious feature of oral text. In context they make perfect sense, but in elicitation it is difficult to construct a context in which they would be acceptable. This fact suggests that the rather loose pragmatic restriction on antecedents is becoming 'grammaticized' into a morphosyntactic constraint, and that perhaps someday hypothesis 99 may become categorical.

3.4. Coreference in participial complements

In constructions with participial (nominalized) complements, the subject of the participle may simply be omitted to indicate identity of reference with the subject of the main clause:

(104) Jááseenújú nůúdyiitoçjásiy
jáásiy-janu-jů nůúdyá-jitøq-jásiy
cut:grass-PART-for 1PL-arrive:there-PROX2
'We arrived to cut grass.'

(105) Murrąyanú siitįįta
murray-janu sa-jitiį-tà
sing-PART 3SG-arrive:here-TRNS
'He arrives here singing.'
(Lit: 'With singing he arrives')

91
In these examples the subject of the preverbal participial is ommitted. In 105, if a VC prefix is added to the participal, switch reference is implied:

(106) Samur vararginu siitita.
    sa-murray-janu sa-jiti-ta
3SG-sing-PART 3SG-arrive-TRNS
'While hei sings, hej arrives.'

(Lit: 'With hisi singing, hej arrives. ')

When the participle follows the main verb the fourth person marker may be used on the participle to indicate subject coreference:

(107) Riyaarofovanumaa jiyaganum
    riy-yariafo-vaa numaa jiy-jiya-janu-mu
3PL-make:noise-now 4-go-PART-LOC
'They make noise going.'

(Lit: 'Theyi make noise in theiri going.' )

(108) Sasiimyaa yimuutyaqanunjii.
    sa-siiy-maa yi-jumuutya-janu-ja-nii
3SG-run-PERF 4-help-PART-for-3SG
'He ran to help him.'

(Lit: 'Hei ran for hisi helping (of) himj.')

The restriction that jiy-/yi- must follow its antecedent holds for constructions with participial complements as well as those with possessed noun phrases:

(109) Riyyaganumujyariafova.
    riy-yiyya-janu-mu jiy-yariafova
3PL-go-PART-LOC 4-make:noise
'They are going making noise.'

In sentences such as 109, the 'main' (non-participial) verb is very limited in the inflectional
information it expresses, e.g. it cannot express time reference directly. The participle is similarly restricted, thus limiting the usefulness of this construction type considerably.
FOOTNOTE to chapter 3

1. The suffix -ta in this example increases the valence of the clause by one argument, and hence is glossed as a transitivizer. The semantics of -ta is discussed in Doris Payne (1985:ch. 5). In examples 105 and 106 it indicates that the direct object is a semantic comitative. Hence an even more literal translation of 105 might be 'A song, he arrived-with.'
4. Chapter 4: Topic Continuity

In this chapter I pose the question: How do discourse pragmatic factors affect the choice of participant coding devices in Yagua discourse? In attempting to answer this question I tentatively adopt the framework set out by Givón (1983a,b,c) for assigning quantitative continuity values to the various coding devices. This approach is a logical first step in that it rests on a well-defined limiting hypothesis, namely that the use of all coding devices can be explained in terms of 'continuity' (as defined below). Once this preliminary hypothesis is tested, deviations from the expected results will point out other factors affecting choice of coding devices, thereby defining areas for further investigation. In chapter 5 I examine specific examples that violate the general findings of the topic continuity study, and attempt to determine what additional factors might be at work. In chapter 6 I show how the use of $S_o$ coding on verbs is explained in terms of text structure, and in chapter 7 I examine the use of pre-predicate pronouns. In chapter 8 I will step back and take a second, more general look at the topic continuity figures and will summarize the more general conclusions of this study.
4.1. The contribution of topic continuity to a theory of anaphora

According to Givón (1983b:7) 'The clause ('sentence') is the basic information processing unit in human discourse.' Discourse is made up of chains of clauses, which are in turn combined into larger units called 'paragraphs', 'sections', 'chapters' etc. In order to qualify as a discourse, a chain of clauses must 'hang together' in certain demonstrable ways, i.e. it must be continuous. This particular observation certainly does not originate with Givón, but plays a central role in much previous work on discourse structure, though under different terminology. For example, Halliday (1967), Halliday and Hasan (1976) and Grimes (1975) among others use the term 'cohesion' for essentially this same concept. Givón's central insight is that discourse is most naturally continuous, i.e. continuity (cohesion, if you will) from one clause to the next in real discourse is the most expected, unsurprising and unmarked situation. Discontinuity is unexpected, surprising and marked. This observation suggests an 'iconicity principle' of human communication in general, and of topic continuity in particular:
"The more disruptive, surprising, discontinuous or hard to process a topic is, the more coding material must be assigned to it."

(Givón, 1983b:18, emphasis in the original).

This principle is consistent with a more general and obvious behavioral principle: 'Expend only as much energy on a task as is required for its performance' (ibid.). Principle 110 is iconic in that it relates a formal coding scale (amount of coding material) to a scalar functional domain (continuity) in a non-arbitrary way, i.e. the less continuity the more coding material. I will have more to say on the subject of functional domains and their formal coding in chapter 8. Characteristically, then, continuity (of various sorts) is either not marked morphologically, or is encoded with minimal morphological marking. Discontinuity, on the other hand, is encoded with more substantial morphological marking, or with otherwise more 'marked' morphosyntactic structures.

There are three types of continuity mentioned in Givón (1983b): Thematic continuity, Action continuity, and Participant, or Topic continuity. Although he acknowledges that these three kinds of continuity are intimately related to one another, Givón concentrates on topic continuity for purposes of the quantitative analytical procedure he proposes. In Givón's view 'topic' is seen as a scalar category. Participants are more or less topical at any given point in a discourse. It is more continuous
(and therefore less surprising, or less marked) for a speaker to refer to (or mention) a more highly topical participant than a less highly topical one.\(^1\) Certainly there are times when a speaker needs to refer to participants that are low in topicality. In particular, participants that have not been brought onto the discourse stage have no topicality whatsoever.\(^2\) Therefore in order to introduce a participant, or to reintroduce a participant after a significant period of absense, more marked morphosyntactic coding devices are called for. The speaker/writer must 'work harder' to signal discontinuity since it is not the most natural state of affairs in human discourse. Givón's quantitative method is a way of determining how topical any participant is at any given point in a text. Once topicality is determined in a rigorous, non-circular, non-impressionistic way, participant coding devices can be ranked in terms of the average topicality values of the participants they code.

Certainly an all-inclusive theory of anaphora would have to take into account many factors other than brute number of mentions and number of clauses since previous mention in order to accurately characterize the use of participant coding devices in discourse. These other factors fall into two categories: 1) factors involving the topicworthiness of the participants themselves, and 2) factors involving the structure and flow of the discourse.
These two factors will be discussed in the following two subsections respectively.

4.1.1. Participant topicworthiness

Participant topicworthiness is here defined as the relative likelihood for a participant to be 'talked about' (Reinhart, 1982). There are at least two kinds of topicworthiness associated with any potential participant in a discourse: inherent topicworthiness, and context-imparted topicworthiness. These notions are reminiscent of, but not identical to, Du Bois' notions of intrinsic salience and plot salience (Du Bois, 1980:248-49). Certain entities are inherently more topicworthy than others, e.g. humans are more likely topics than non-humans, animates are more likely topics than inanimates, etc. Other entities are likely topics because of the semantics or pragmatics of the particular speech context. This second kind of topicworthiness is that which will be the focus of the rest of this chapter, and hence merits some elaboration here.

To take an obvious case of context-imparted topicworthiness, the speech act participants themselves are always highly topicworthy. They are always 'available' for reference in any discourse since interlocutors must always be conscious of one another. This fact explains why speech act participants can be
universally referred to with reduced morphosyntactic coding devices, such as first and second person pronouns, regardless of whether or how many times they've been mentioned previously in the discourse. In addition, however, particular speech situations may impart topicworthiness to certain classes of entities. For example, in certain religious circles God is perpetually a highly topicworthy entity. Hence, in the context of a religious gathering of this type, a participant coding device of the appropriate inflectional category but with no obvious antecedent is taken to be a reference to God. Another more commonplace example of this same phenomenon is the fact that entities can be non-linguistically or implicitly brought onto the discourse stage, by deixis, inference, body language and shared presuppositions of the speech act participants. Also, the choice of a particular verb causes the class of participants that are typical for that verb to be more topicworthy. For example, 'to spew' in English implies a liquid participant, 'to speak' a human participant, etc. Finally, in narrative the central characters of the story are more likely topics than the non-central characters. In short there are a myriad of factors that affect 'degree of topicworthiness' many of which are not accessible to the linguist working from transcribed materials, especially when the linguist does not have native understanding of the language, or of the
culture of the speakers of that language. Topicality (in the sense of Givón, 1983b, as number or density of mentions) is only one kind of context-imparted topicworthiness, i.e. if a participant has already been mentioned a lot and/or has recently been mentioned in the current discourse, it is more likely to continue as topic (it is more topicworthy) than are other entities, other factors being equal.

Despite the fact that the topic continuity methodology is sensitive to only a few of the factors involved in topicworthiness, it does represent a step in the right direction. The value of this methodology is that it is quantitative, rigorous and non-impressionistic. Future research will certainly refine the methodology and the theoretical principles that underlie it until all variables have been isolated and incorporated into the findings.

In the quantitative study of Yagua presented in this chapter, I have attempted to control for some of the variables outlined above by 1) distinguishing between central, major and minor characters (section 4.3), 2) by excluding from the general topic continuity counts references to entities which are clearly perpetually topicworthy due to their universal presence on the discourse stage, e.g. 'the sun', 'the day' etc. and 3) by excluding references to speech act participants. The other
factors (e.g. deictic mentions, implicit mention due to semantic subcategorization of verbs) will only be dealt with as they are obviously relevant in particular cases.

4.1.2. Discourse structure

The second major group of factors affecting the choice of coding devices has to do with the structuring of the information contained in a text. Again there are two subtypes of factors, 1) the hierarchical thematic or episodic structure of the text, and 2) factors of grounding, i.e. foregrounding and backgrounding of information (Hopper and Thompson, 1980). The first factor corresponds to Givón's 'thematic continuity' and relates to the fact that thematic (or episode) boundaries crucially affect a speaker's choice of coding devices. The second group of factors corresponds to Givón's 'action continuity'. Neither of these areas is dealt with in great detail in Givón (1983a,c,d), though he does compare continuity indices for participants at thematic junctures with those not at such junctures (1983d:192ff).

Two recent works which incorporate the notion of thematic structure into the question of choice of participant coding devices are Clancy (1980) and Fox (1984). As mentioned in chapter 1 section 1.5.2.2, Clancy (1980) is the first work in which topicality (though Clancy does not use this term) is measured in terms of
distance in number of clauses since last mention. However, in addition to counting numbers of clauses, Clancy also notices that discourse boundaries tend to elicit stronger coding devices than would be expected given a strictly linear view of continuity based on number of mentions or distance since last mention. The particular boundaries that Clancy finds relevant are 'world shifts', where a narrator shifts between the 'real world', i.e. the situation in which the narrative is being recounted, and the 'story world', i.e. the world being depicted in the narrative. Clancy also finds 'episode' boundaries significant. There are many other factors that Clancy deals with in her article on a case by case basis.

Fox (1984), working primarily in the framework of Rhetorical Structure Analysis (Mann and Thompson, 1983) for written texts, and Conversational Analysis (Sacks, Schegloff and Jefferson, 1974) for conversational texts, shows that the choice between use of a pronoun versus a full noun phrase in English is influenced by the hierarchical structure of the content of the text. Fox takes particular examples of what would, from a strictly linear point of view based on number of clauses since previous mention, appear to be excessively strong coding devices (i.e. full NPs) or excessively weak devices (i.e. pronouns) and shows how from a hierarchical point of view, such patterning is explainable (Fox, 1984:240ff). On the
basis of such examples Fox rejects the 'distance' view of topicality in favor of a hierarchical view.

There is no question that hierarchical structure must be taken into account in an all-inclusive theory of anaphora. However, the essential contribution of Givón's work on topic continuity is that it provides a quantitative method of calculating at least some of the factors affecting choice of coding devices. It is not meant to be all inclusive or predictive, in the sense of being able to provide an algorithm for generating exactly the correct coding choices in a text, and none of the incorrect ones. It simply provides a rigorous, quantitative method of comparing the functions of coding devices according to certain well-defined parameters (referential distance, persistence and ambiguity as defined below). Future research on the use of anaphora in discourse must still provide a rigorous, preferably quantitative way of characterizing the effect of thematic continuity on participant coding choices.

In section chapter 5 sections 5.1.2 and 5.2.5 I will illustrate two respects in which the hierarchical structure of the text affects the choice of coding devices in Yagua. Furthermore, in chapter 6 I will examine one specific construction in depth, namely $S_0$ coding on verbs. The use of this construction is better explained in terms of thematic structure than strict continuity.
4.2. Technique

Topicality will be measured in terms of two indices: Referential Distance ('look back'), and Persistence ('decay'). A third index, Ambiguity ('interference'), will be calculated for a subset of the examples in the corpus, for reasons discussed below.

The index of Referential Distance (RD) is based on the assumption that participants that have not been mentioned recently in the discourse are more difficult to process and are therefore less topical than those that have been mentioned more recently. This index measures the gap between the current mention of a participant and its previous mention in the discourse in terms of number of clauses. Thus an RD of 1 indicates that the participant was last mentioned in the immediately preceding clause and is therefore maximally continuous. In the extreme case of discontinuity, where a participant has not been mentioned at all in the present discourse, the RD index is technically infinite. However, since we cannot deal satisfactorily with infinite values, I will follow Givón (1983a,c,d) in imposing the somewhat arbitrary limit of 20 on the RD index. Thus participants which are introduced into the discourse for the first time, or are absent from the discourse stage for 20 clauses or longer receive the RD index of 20.
The index of Persistence is based on the notion that some participants are 'destined', as it were, to figure more prominently in the ensuing discourse than are others. Those which the speaker plans to continue talking about will be treated as more highly topical than those which will play only a transitory role. Givón (1983a,c,d) and the authors of the specific topic continuity studies appearing in Givón (1983b) calculate the persistence index for a particular instance of a coding device by counting the number of subsequent clauses in which the participant coded by that device continues as topic in an unbroken chain. This methodology seems somewhat artificial to me in that it is very common for a clause to not contain a mention of a participant that in all other respects is highly topical. Under Givón's counting method, such a clause will immediately terminate a persistence chain for that participant, even though the participant may be picked up again and referred to continuously for many subsequent clauses. For example, if the referent of a particular coding device is not mentioned in the immediately subsequent clause, the Persistence count for that mention is 0, regardless of how many times that referent is subsequently mentioned. For this reason, I will depart from Givón's methodology in favor of a method that measures the density of mentions of a participant in a subsequent stretch of text as follows: count the number
of mentions of the participant in question within 10 clauses to the right of the current mention. The minimal value of this index, then, would be zero for participants that are not mentioned at all in the following 10 clauses. There is in principle no maximal value to this measurement, since participants can be mentioned more than once in a clause. However, the highest persistence index in the corpus on which this study is based is 14.

Finally, the index of Ambiguity relates to the fact that whenever a participant is mentioned, there may be other participants on stage that compete for interpretation as the referent of the particular coding device employed. In other words, RD and Persistence being equal, a stronger coding device will be necessary to identify a particular participant if there are other semantically appropriate participants in the immediate discourse context. This index is limited to two values, 1 and 2. If there are no additional semantically appropriate participants on stage at the time of coding, the Ambiguity index is 1. If there are other such participants, the index is 2. A participant is considered to be 'on stage' if it has been mentioned within three clauses prior to the mention in question.

In many cases it is quite clear whether or not there are potentially interfering participants on stage. In many other cases in the corpus studied, however, it simply
isn't clear. Operationalizing this index in a way that would be rigorous and replicable proved very difficult for several reasons, though the essential problem is that of defining the notion of semantic appropriateness. Any particular verb in a particular discourse context is usually very restricted as to the participants that might conceivably take part in the action described by that verb. Many participants may be on stage, but context, common sense and semantics all interact to determine which participants are acting at any given point. At times it seems rather arbitrary to select out semantics as the one factor determining whether any two participants might compete as referents for a given coding device. For example, in the Twins Cycle there are many cases where several participants are interacting. Technically in such a circumstance the use of a third person dual coding device could refer to any possible pairing of participants that are on stage, thus ambiguity would be high. However, the only pair ever referred to as a pair in the story are the twins themselves. Thus from a pragmatic point of view the ambiguity is very low. For this and other reasons the ambiguity index was not calculated on the corpus as a whole, but only for examples of strong coding devices used to code recently mentioned participants (chapter 5, section 5.2), and for the PPRO device (chapter 7).
4.3. Modifications

The major modifications I will introduce into Givón's methodology involve the treatment of quoted material. This is particularly important for this study since over 30% of the clauses in the corpus are quotes. Participant mentions within quotes will not be given continuity indices, since I judge that their continuity pertains more to the quoted discourse than to the discourse in which the quote appears. However, such mentions will be counted for purposes of determining the continuity indices of other mentions that occur outside the quotes. This decision rests on the assumption that if a participant is mentioned in a quote, that participant is 'on stage' and therefore is just as potentially topical as it would be were it mentioned outside of a quote.⁴

A second modification that I will introduce will be to count the character that utters the quote as having been mentioned, even if no overt mention of that character is made. This modification is based on the assumption that if a participant has a 'speaking part' in the discourse drama, that participant must be 'on stage', and therefore must be available as a discourse topic at the point where he or she speaks. It is quite common in Yagua discourse for a series of quotes to occur in which two or more participants are interacting, but where explicit verbs of saying are not indicated for every conversational
'turn' in the quoted discourse. It is simply understood by the content of the turn which interactant is speaking. Such situations will be considered to constitute a mention of the speaker for purposes of calculating continuity indices of other mentions. However, such implicit mentions will not themselves be assigned continuity indices.

Other modifications involve the measurement of mentions of participants that are referentially included within mentions of other, non-singular, participants. Non-singular mentions are considered to be mentions of each of the individuals contained in the group. Thus the RD of a non-singular mention would be the distance back to the last mention of any of the included individuals. The Persistence index would be the number of mentions of any of the individuals within 10 clauses to the right. Similarly, non-singular mentions are considered to be mentions of each of the individuals for purposes of counting RD and P indices of other singular mentions of those individuals.

Finally, I will introduce four character statuses as follows:

1. Central characters -- These are the characters that the text is about, and which are normally present throughout the text. Central characters do not lose their status as central characters, even if they are not mentioned for an
entire episode (e.g. the snail episode of the Twins Cycle, TC398 to TC458).

2. Non-central Major characters -- those characters mentioned 5 or more times in 20 clauses in a single episode. Characters mentioned only four times in 20 clauses are also considered major if in the majority of those mentions (i.e. 3 or 4) the character was a subject, i.e. an A or S participant. For purposes of determining whether a character is major or not, a quote is considered to be a (non-subject) mention of the character who utters the quote. Major characters may lose their status as major in a subsequent episode if they don't meet the criterion.

3. Perpetually present -- This category encompasses that small number of referents that are automatically present on the discourse stage and therefore do not need to be introduced, e.g. the sun, the day, etc. Also, dummy referents like the subject of 'thunder' in 'it thunders'. Mentions of such participants are not given continuity indices, and therefore do not figure into the counts for the various coding devices.

4. Minor characters -- All other participants.

The scope of this study is purposely limited in several respects. I will be concerned only with A, O, S
(all types, including subjects of non-verbal predicates) and all Oblique (OBL) participants. I have not calculated continuity values for interjections or possessors, though these categories of mentions are considered in the calculations of continuity values for other mentions. Furthermore, I have not calculated continuity indices for zero or the right dislocated devices (RDNP and RDPRO), or for the left-dislocated NP device (LDNP) since these devices occur only very rarely, and then only in combination with some other device. Doris Payne (1985) deals with the pragmatic functions of left-dislocated NPs.

4.4. Data Base of the Quantitative Study

The data base for this study consists of four texts, all of which are essentially folkloric narratives. Table 1 summarizes the data base of this study:

<table>
<thead>
<tr>
<th>Text</th>
<th>Number of clauses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quotes</td>
<td>Non-quotes</td>
</tr>
<tr>
<td>1. First Squirrel (FSQ)</td>
<td>49</td>
<td>87</td>
</tr>
<tr>
<td>2. Hunter Narrative (HN)</td>
<td>72</td>
<td>154</td>
</tr>
<tr>
<td>3. Kneebite Twins (KT)</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td>4. Twins Cycle (TC)</td>
<td>232</td>
<td>371</td>
</tr>
</tbody>
</table>

Total: 385 690 1075

Table 1: Corpus for the topic continuity study

The fact that all these texts are folkloric narratives biases the sample, to be sure. However, I have chosen to keep the genre constant in order to eliminate genre as a possible complicating factor as much as
possible. Also, folkloric narrative is virtually the only non-first person genre available in Yagua, and questions of topic continuity are not as relevant when the primary characters are speech act participants for the simple reason that all speech act participants are always highly topicworthy. Finally, since little is known about Yagua in general, I judge it appropriate to begin the investigation with straightforward, narrative material. Future research would certainly need to include other genres.

These texts were all orally composed by unquestionably competent native storytellers, under reasonably natural circumstances. Transcriptions and translations were made either by native speakers, or by linguists working closely with the storytellers themselves (all of whom were preliterate at the time of storytelling). Text 1 (Appendix 2 of this thesis) is an episode of a longer Yagua folktale titled 'Little Baldy' in Powlison (1969). This particular version was recorded as a self-contained unit, so all continuity is relevant within the span of text examined. The other texts were all recorded by Paul Powlison. Texts 2 and 3 remain unpublished, while text 4 appears in Powlison (1969), though in a different orthography than that which is used in this study, and without clause numbering. The transcriptions of texts 1 and 3, and the free
translation of text 4 occur in the appendices to this thesis.

4.5. The Results

The tables and discussion presented in this section represent only a few of the possible ways of displaying the results of the quantitative study. I have endeavored to provide enough figures so that the reader with interest in a specific issue not dealt with in the discussion will be able to glean the appropriate data from the tables provided. Inevitably, however, the discussion is limited to a few areas of particular interest to this thesis. The following abbreviations will be used in the tables: C = Central character, MA = MAjor character, MI = MInor character (see section 4.3 for an explanation of these terms), T = totals, n = number of instances, Mn = mean. A, O, Sa and So will, of course, refer to semantico-syntactic roles, as outlined in chapter 1, section 1.5.2.

Mean values for all indices have been calculated and appear on the bottom row of each table. Since individual deviations from those mean values will be of particular interest, however, the tables also indicate the total number of instances of each value of each index for each coding device. Thus the tables graphically represent the
distribution of instances of particular values within the entire range of possible values.

The pre-predicate pronoun device occurred only nine times in the corpus represented in table 1 for all roles. Hence, further examples were selected at random from other texts thus increasing the total number of examples to 25. All but one of these examples were mentions of central or major participants. Due to the relatively small number of examples, the three character statuses, central, major and minor, were not distinguished for the pre-posed pronoun device.

4.5.1. A and $S_a$ participants (subjects)

4.5.1.1. Referential distance

Table 2 indicates the referential distances for all A and $S_a$ participants coded with the VC (verb coding) device:
<table>
<thead>
<tr>
<th>RD</th>
<th>A</th>
<th>S_a</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>MA</td>
<td>MI</td>
<td>T</td>
</tr>
<tr>
<td>1. 81</td>
<td>43</td>
<td>2</td>
<td>126</td>
</tr>
<tr>
<td>2. 13</td>
<td>12</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>3. 7</td>
<td>4</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>4. 2</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>5. 2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6. 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(no instances of VC device coding RD of 11 to 19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 106</td>
<td>61</td>
<td>3</td>
<td>170</td>
</tr>
<tr>
<td>Mn= 1.57</td>
<td>1.46</td>
<td>1.33</td>
<td>1.52</td>
</tr>
</tbody>
</table>

Table 2: Referential Distance, Verb Coding device A and S_a Categories

From table 2 we observe that the Referential Distance for the VC device is quite low and is roughly equal for all participant categories. The majority of instances of the VC device (322/448 or 72%) code participants which had been mentioned in the immediately prior clause (RD = 1), and most of the others cluster nicely near the lower end of the scale. These gross facts lead me to classify VC as a short range coding device. That is, its primary function is to code participants that have been mentioned very recently in the discourse. However, it is interesting to note that occasionally the VC device is used to code quite distant participants. In fact 4 times in this corpus the VC device has the maximal RD index of 20, even though it never has an RD index between 11 and 19. In chapter 5, section 5.1 I will look at specific examples of VC used to
code relatively distant participants (RD > 8) for possible explanations for this patterning.

Table 3 presents the referential distance counts for the PVNP device used to code A and Sₐ participants:

<table>
<thead>
<tr>
<th>RD</th>
<th>A</th>
<th>Sₐ</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>MA</td>
<td>MI</td>
</tr>
<tr>
<td>1.</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 1 2 1 4 | 2 2 7 11 | 15
Mn= 8 1 20 7.5 | 2 13 15.14 12.36 | 11.07

Table 3: Referential Distance, Pre-Predicate NP device A and Sₐ Categories

An obvious and expected finding of the figures in table 3 is that PVNP is a relatively long range coding device. That is, it typically codes participants that have been absent from the discourse stage for a substantial amount of time. The mean RD of 11.07 for the PVNP device is significantly higher than 1.68 for the VC device. However, the figures in table 3 do not show nearly as much homogeneity as do those for the VC device. In particular we notice that Sₐ participants taken as an aggregate exhibit higher Referential Distance than do A participants (RD = 12.36 for Sₐ and RD = 6.2 for A). This fact indicates that participants coded in the Sₐ role (subjects
of intransitive verbal predicates) are generally less topical, and more discontinuous than those coded in the A role (transitive subjects). This observation is consistent with Du Bois (1985) who observes that intransitive subjects and transitive objects share the characteristic of being the primary roles in which 'new' information is introduced, as opposed to transitive subject which is typically 'given' information. And in fact a quick glimpse ahead reveals that the pre-verbal NP device used to code O participants has an RD more similar to that of the same device used to code $S_a$, rather than A participants (see table 13).

The individual figures for central, major and minor participants in chart 3 are not particularly helpful since the number of examples is so low. However, we may make two general observations: 1) the PVNP device is relatively uncommon, occurring only 15 times in 690 non-quote clauses of text, and 2) when it is used, it tends to code non-central characters (12 instances) rather than central characters (3 instances).

Table 4 presents the Referential Distance counts for the device termed verb coding plus (post-verbal) noun phrase (VC+NP) used to code A and $S_a$ participants:
<table>
<thead>
<tr>
<th>RD</th>
<th>A</th>
<th></th>
<th></th>
<th></th>
<th>Sa</th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td></td>
<td>MA</td>
<td>MI</td>
<td>T</td>
<td>C</td>
<td></td>
<td>MA</td>
<td>MI</td>
</tr>
<tr>
<td>1.</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td></td>
<td></td>
<td>10</td>
<td>11</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td></td>
<td>2</td>
<td>9</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>11</td>
<td>4</td>
<td>21</td>
<td></td>
<td>24</td>
<td>34</td>
<td>14</td>
<td>72</td>
</tr>
<tr>
<td>n=</td>
<td>5.33</td>
<td>5.55</td>
<td>20</td>
<td>8.24</td>
<td>4.75</td>
<td>6.94</td>
<td>14.14</td>
<td>7.86</td>
<td>7.95</td>
</tr>
</tbody>
</table>

Table 4: Referential Distance, Verb Coding plus NP device A and Sa Categories

The aggregate mean for the RD of the VC+NP device (7.95) is not as high as that of the PNP device (11.07). Thus I conclude that participants coded with the PNP device are less topical than those coded with the VC+NP device. This fact is consistent with the view expressed in Givón (1983c:19) that left-dislocated NPs are universally associated with higher discontinuity than are NPs in the neutral position. However, these same facts seem to go against the scale of phonological size (Givón, 1983c:18), which says that the phonologically 'larger' device (in this case VC+NP) should be correlated with higher discontinuity than the 'smaller' device (PNP). Clearly, there is some other factor involved here. This issue will be discussed briefly in chapter 8.

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Again, the figures in table 4 exhibit less homogeneity than those for the VC device. Unlike the PNP device (Table 3), the Referential Distance counts for the VC+NP device do not separate out according to semantico-syntactic role, i.e. for the VC+NP device A and Sa participants as a whole exhibit similar RD counts (8.24 and 7.59 respectively). However, what we notice in table 4 is that the counts do separate out according to character status. Central characters are consistently more topical, in terms of RD, than major characters, which are in turn consistently more topical than minor characters.

Finally, table 5 presents the Referential Distance counts for the PPRO device used to code A and Sa participants:

<table>
<thead>
<tr>
<th>RD</th>
<th>A</th>
<th>Sa</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

\[ n = 5 \quad 10 \quad 15 \]
\[ Mn = 1.6 \quad 1 \quad 1.2 \]

Table 5: Referential Distance, Preverbal Pronoun device, A and Sa categories

From table 5 I conclude that PPRO is a short range device. It is interesting that the RD for this device is actually slightly less than the RD for the other short range device, VC (see table 2). Of course in the current state of the art we have no way of evaluating whether the
difference between an RD of 1.2 and one of 1.68 is significant. However, even if we take these figures to be equivalent, we seem to have a violation of the iconicity principle of topic continuity stated in 110. PPRO is a 'larger', more complex and more marked device than VC, and therefore should code topics that are less continuous. In chapter 7 I will look at other factors that account for the use of the PPRO device, and in chapter 8 I will present what I feel are the ramifications of this kind of anomaly for the topic continuity framework.

4.5.1.2. Persistence

In calculating persistence indices the categories of major and minor characters were collapsed into one, for the simple reason that minor characters could inherently not have a persistence index of more than 4. This is because the definition of a minor character (see section 4.3) is a participant that is mentioned less than five times in twenty clauses. Thus if a participant has a persistence index of more than four, it cannot be a minor character. Also, the total number of mentions is lower for the persistence index because persistence indices were not recorded for mentions closer than ten clauses to the end of a text. This assured that all persistence indices counted were calculated on full spans of ten clauses.
Table 6 summarizes the persistence indices for all A and $S_a$ categories for the coding device VC.

<table>
<thead>
<tr>
<th>A</th>
<th>C</th>
<th>NC</th>
<th>T</th>
<th>$S_a$</th>
<th>C</th>
<th>NC</th>
<th>T</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>10</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>14</td>
<td>17</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>15</td>
<td>22</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>24</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>19</td>
<td>27</td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>12</td>
<td>12</td>
<td>24</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>4</td>
<td>15</td>
<td>19</td>
<td>14</td>
<td>33</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>9</td>
<td>24</td>
<td>17</td>
<td>9</td>
<td>26</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>8</td>
<td>26</td>
<td>20</td>
<td>5</td>
<td>25</td>
<td></td>
<td>51</td>
</tr>
<tr>
<td>9</td>
<td>17</td>
<td>1</td>
<td>18</td>
<td>17</td>
<td>3</td>
<td>20</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>10</td>
<td>17</td>
<td>1</td>
<td>18</td>
<td>19</td>
<td>2</td>
<td>21</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>3</td>
<td></td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

$n = 109$  
$Mn= 7.33$  

Table 6: Persistence Indices, VC device A and $S_a$ categories

In table 6 we see that central characters coded with the VC device are higher in persistence than are non-central characters. This is not particularly surprising since central characters are almost by definition those which are mentioned most often. Thus for any random stretch of text we would expect to find more repeated mentions of individual central characters, than of any individual non-central characters. As with the RD index, we find the Persistence index for the VC device to be roughly equal for both A and $S_a$ participants.
Table 7 presents the Persistence counts for the PNP device:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th></th>
<th></th>
<th>S_a</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>NC</td>
<td>T</td>
<td>C</td>
<td>NC</td>
<td>T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ n = 1 \quad 4 \quad 5 \quad 2 \quad 9 \quad 11 \quad 16 \]
\[ \text{Mn} = 10 \quad 2 \quad 3.6 \quad 8.5 \quad .56 \quad 2 \quad 2.5 \]

Table 7: Persistence Indices, Pre-verbal NP device
A and S_a categories

In Table 7 we notice that the figures for central and non-central characters separate out even more strongly than they do for the VC device. Central characters coded with the PNP device are much more strongly persistent than non-central characters coded with the same device. Again, however, there seems to be no significant distinction based on semantico-syntactic role.

Table 8 presents the Persistence counts for the VC plus (post-verbal) NP device:
Table 8: Persistence Indices, VC plus NP device A and $S_a$ categories

The figures in table 8 are closer to those in table 6 than those in table 7. That is, VC+NP functions more like VC than like PNP in terms of the Persistence index. Limitations of space prohibit a full analysis of the ramifications of this, and many other of the observations made in this chapter. As mentioned above, it is hoped that the presenting the data in this way will pique the interest of the reader, who then may be inspired to follow up some of these observations in future research.

Finally, table 9 presents the Persistence counts for the PPR0 device used to code A and $S_a$ participants:
\[ \begin{array}{ccc}
\text{P} & \text{A} & \text{S}_a & \text{Total} \\
0. & 1 & 3 & 4 \\
1. & & 3 & 3 \\
2. & & 1 & 1 \\
3. & & & \\
4. & 1 & 2 & 3 \\
5. & 1 & 2 & 3 \\
\vdots & & \vdots & \vdots \\
9. & 2 & \text{---} & 2 \\
\hline
\text{n} = 5 & 11 & 16 \\
\text{Mn} = 5.4 & 2.09 & 3.13
\end{array} \]

Table 9: Persistence Indices, preverbal pronoun device
A and $S_a$ categories

4.5.2. 0 and $S_o$ participants

4.5.2.1. Referential distance

Table 10 indicates the Referential Distances of 0 and $S_o$ participants coded with the simple E (enclitic) device. A distinction is also drawn between $S_o$ participants of predicate nominals, and $S_o$ participants of verbal predicates (see chapter 6 for a text-based analysis of the use of $S_o$ coding with verbs).
Table 10: Referential Distance, Enclitic device 0 and $S_o$ categories

From Table 10 we can conclude that, like the VC and PPRO devices, the enclitic device is a short range device in that most instances of this device cluster nicely towards the low end of the RD scale. Another interesting parallel between the enclitic device and VC is that for both there are some instances of the device used to code quite distant participants even though there is a significant gap in which no instances of the device are found. For the enclitic device the gap is from RD 6 to 19, with three instances of the device used to code participants whose RD is 20. One dissimilarity between the figures in Table 10 and those in Table 2 for the VC device is that, especially for 0 participants, RD is slightly higher for the E device than for the VC device. This indicates that 0 participants coded with the E device are slightly more
discontinuous than A and $S_a$ participants coded with the VC device.

There is no clearly significant patterning of RD indices for the E device according to semantico-syntactic role or character status. For the O role, central characters exhibit a slightly lower RD than do major characters, and major characters exhibit a slightly lower RD than do minor characters. This is yet another example of central characters being more topical than non-central, and major characters being more topical than minor characters. However, the overall spread between the RD indices of the various character statuses is not particularly striking, and the overall RD indices for O and $S_o$ participants of verbal predicates are very similar. I judge that there are not enough examples of $S_o$ participants of non-verbal predicates to draw any conclusions from their RD indices, which are consistently 1.

Table 11 shows the Referential Distance indices for the post-predicate NP device used to code O and $S_o$ participants:
<table>
<thead>
<tr>
<th>RD</th>
<th>0</th>
<th>( S_\circ ) (pred nom)</th>
<th>( S_\circ ) (verbal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>MA</td>
<td>MI</td>
<td>T</td>
</tr>
<tr>
<td>1.</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>9.75</td>
<td>14.7</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Referential Distance, post-predicate NP device 0 and \( S_\circ \) categories

Table 11 shows that the simple post-predicate NP device is not used to code central characters at all. However, the generalization that major characters exhibit lower RD (9.75) than do minor characters (14.7) still holds. Also, subjects of non-verbal predications (\( S_\circ \) participants) are only used to code participants with the maximum RD (20), though the number of examples of subjects of non-verbal predications coded with this device is so small that any generalizations made with respect to their indices must remain tentative.

Table 12 indicates RD figures for the enclitic plus NP device used to code 0 and \( S_\circ \) participants:
<table>
<thead>
<tr>
<th>RD</th>
<th>0</th>
<th>$S_o$ (pred nom)</th>
<th>$S_o$ (verbal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>MA</td>
<td>MI</td>
</tr>
<tr>
<td>1.</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

n= 7 16 19 42 | 6 6 | 1 1 49
Mn= 8.43 16.32 | 4.33 4.33 | 3 3 10.26
6.56 11.29

Table 12: Referential Distance, Enclitic plus NP device
0 and $S_o$ categories

In table 12 again we see that the only substantial numbers of instances of the E+NP device occur in the 0 columns (n = 42). Here we see that central and major characters are similar in RD, while minor characters are substantially higher. However, for the first time the generality that central characters are more topical than major characters is violated. In table 12 we see that central characters coded with the E+NP device are actually less topical in terms of RD (RD = 8.43) than are major characters (RD = 6.56).

Table 13 illustrates the Referential Distance counts for the PNP device used to code 0 and $S_o$ participants.
Table 13: Referential distance, pre-predicate noun phrase
device, 0 and $S_0$ categories

Unfortunately the numbers of examples of the PNP device
used to code 0 and $S_0$ participants is so small that it is
very difficult to draw any firm conclusions. However, we
do notice that there is only one instance of this device
used to code a central character, and in that instance the
RD is the minimum. For the other instances of 0
participants the RD is higher than for any other device
(RD = 20 and 17.3).

Finally, table 14 illustrates the RD figures for the
PPRO device used to code 0 and $S_0$ participants:

Table 14: Referential Distance, pre-predicate pronoun
device, 0 and $S_0$ categories

Again, the number of examples of the PPRO device coding 0
and $S_0$ participants is so low as to render any
generalizations tentative at best. All we can
definitely say from these figures is that PPRO is a
short range device (aggregate RD = 1.3).

4.5.2.2. Persistence

The following tables indicate the persistence indices
for 0 and $S_0$ participants, beginning with the E device:

<table>
<thead>
<tr>
<th>P</th>
<th>0</th>
<th>$S_0$ (pred nom)</th>
<th>$S_0$ (verbal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>NC</td>
<td>T</td>
</tr>
<tr>
<td>0.</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>1.</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>4.</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6.</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>9.</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

---

n = 24 44 68 | 3 3 | 10 4 14 | 85
Mn= 6.62 3.68 4.72 | 2.67 2.67 | 8.3 3.25 6.86 | 5

Table 15: Persistence Indices, E device
0 and $S_0$ categories

These figures again show that central characters are more
continuous in terms of Persistence than are non-central
characters. For both 0 and $S_0$ (verbal) roles, central
characters are substantially more persistent than are
non-central characters. In particular the figures for 0
participants are roughly equal to, though slightly lower
than, the figures for the VC device used to code A and $S_a$
participants (see table 6).
Table 16 presents the persistence figures for the simple NP device:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>S₀ (pred nom)</th>
<th>S₀ (verbal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>C  NC  T</td>
<td>C  NC  T</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>4  4</td>
<td>3  3</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>4  4</td>
<td>1  1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1  1</td>
<td>1  1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>2  2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>1  1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>2  2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>1  1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>1  1</td>
<td></td>
</tr>
</tbody>
</table>

---

n = 16 16 5 5 21
Mn= 3 3 .6 .6 2.43

Table 16: Persistence Indices, post-predicate NP device O and S₀ categories

Table 16 shows that participants coded with the post-predicate NP device exhibit very low persistence indices, though O participants are slightly more persistent than S₀ participants.

Table 17 presents persistence counts for the E plus NP device:
Table 17: Persistence Indices, E plus NP device O and S₀ Categories

Again, central characters are a distinct minority, but when they are coded with the E+NP device their persistence is somewhat higher than that of the same semantico-syntactic roles coded with the other devices (e.g. E, and post-pred NP). It may be significant that S₀ participants of non-verbal predicates have a higher mean persistence index (5.29) than do O participants (2.87 for all statuses, 1.97 for non-central characters only), even though all examples of S₀ participants coded with this device are non-central characters.

Table 18 presents the Persistence figures for the PNP device used to code O and S₀ participants:
Table 18: Persistence, pre-predicate NP device, 0 and $S_o$ categories

Again, the number of examples of the PNP device is very small. Nevertheless, we find that this device is used primarily for relatively non-persistent participants.

Finally, Table 19 presents persistence figures for the PPR0 device used to code 0 and $S_o$ participants:

Table 19: Persistence Indices, pre-predicate pronoun device, 0 and $S_o$ Categories

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4.5.3. Oblique Participants

In this section the tables indicating referential distance and persistence figures for oblique participants are presented. The only devices ever used to code oblique participants in my corpus are HC, NP and HC+NP (see chapter 2, section 2.3).

4.5.3.1. Referential distance

Table 20 presents the RD figures for the HC device:

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>MA</th>
<th>MI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>27</td>
<td>41</td>
<td>10</td>
<td>78</td>
</tr>
<tr>
<td>2.</td>
<td>5</td>
<td>10</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

---

n= 35  61  11  | 107
Mn= 1.43  1.88 1.18  | 1.66

Table 20: Referential Distance, head coding device, Oblique categories

From table 20 we observe that the RD indices for the HC device are roughly comparable to those of the VC (table 2) and E (table 10) devices. This is to say that HC is a short range device in that there is a nice clustering of instances of this device near the lower end of the scale. However, these figures differ from those for VC and E in that there are no instances of the HC device used to code
a participant with the maximum RD of 20. In other words there is no secondary clustering towards the upper end of the scale like there is for VC (see table 2) and E (table 10).

Table 21 presents the RD figures for the (pre-head) NP device:

<table>
<thead>
<tr>
<th>RD</th>
<th>C</th>
<th>MA</th>
<th>MI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>9.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>10.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>11.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>12.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>51</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

n= 20 62 82
Mn= 8.2 17.39 15.15

Table 21 Referential Distance, NP device, Oblique categories

As with all other roles, the simple NP device used to code oblique participants is reserved for non-central characters.

Table 22 presents the RD figures for the HC+NP device:
<table>
<thead>
<tr>
<th>RD</th>
<th>C</th>
<th>MA</th>
<th>MI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

\[ n=13 \quad 19 \quad 12 \quad | \quad 44 \]
\[ Mn= 3.69 \quad 11.26 \quad 14.5 \quad | \quad 9.91 \]

Table 22: Referential Distance, head coding plus NP device, Oblique categories

In table 22 we observe that for obliques, central characters are much more likely to be coded with a head coding prefix in combination with an NP, than with an NP alone. This fact, along with similar observations made for the other semantico-syntactic roles, allows us make the more general observation that for all semantico-syntactic roles a simple NP is primarily used to code non-central participants. Central participants are much more likely to be coded with a VC, E or HC device in addition to the NP.
4.5.3.2. Persistence

Table 23 presents the Persistence figures for the HC device:

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>C</th>
<th>NC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>9</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>9</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>7</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>11</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>7</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>3</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>3</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>3</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

\[ \text{n = 37} \quad \text{69} \quad \text{106} \]
\[ \text{Mn= 8.03} \quad \text{3.52} \quad \text{5.09} \]

Table 23: Persistence Indexes, HC device
Oblique Categories

Table 23 reveals that oblique central characters coded with the HC device are more persistent than non-central characters. This fact is also consistent with our observations concerning the VC device for A and Sₐ participants, and the E device for O and Sₒ participants.

Table 24 presents the Persistence figures for the (pre-head) NP device:
Table 24: Persistence Indexes, NP device
Oblique Categories

Finally, table 25 presents the Persistence figures
for the HC+NP device:

<table>
<thead>
<tr>
<th>P</th>
<th>C</th>
<th>NC</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>1.7</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>11.</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

| n  | 15 | 31 | 46   |
| Mn | 6.13 | 2.52 | 3.7  |

Table 25: Persistence Indexes, HC plus NP device
Oblique Categories

Again, central characters are more persistent than
non-central characters.
4.5.4. Summary of mean values by coding device

The following tables summarize the aggregate figures from all of the preceding tables. In the first column of these tables the figures for the three reduced devices, VC, E and HC, are found. Since VC is only used for A and Sa participants, the first two boxes in the first column give the appropriate figures for that device. The next two boxes give the figures for the E device, and the last box gives the figure for the HC device. The same is true for column three where the figures for VC+NP, E+NP and HC+NP are listed from top to bottom respectively. At the bottom of these columns the aggregate means for each of these sets of devices are given.

<table>
<thead>
<tr>
<th></th>
<th>VC/E/HC</th>
<th>PNP</th>
<th>VC/E/HC+NP</th>
<th>PPRO</th>
<th>post- NP</th>
<th>Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.52</td>
<td>6.2</td>
<td>8.24</td>
<td>1.6</td>
<td>----</td>
<td>2.35</td>
</tr>
<tr>
<td>Sa</td>
<td>1.7</td>
<td>12.36</td>
<td>7.59</td>
<td>1</td>
<td>----</td>
<td>3.24</td>
</tr>
<tr>
<td>Oa</td>
<td>2.38</td>
<td></td>
<td>11.17</td>
<td>1.29</td>
<td>12.33</td>
<td>6.84</td>
</tr>
<tr>
<td>S</td>
<td>1.53</td>
<td></td>
<td>3.75</td>
<td>1.33</td>
<td>16.4</td>
<td>4.92</td>
</tr>
<tr>
<td>Ob1</td>
<td>1.67</td>
<td>15.15</td>
<td>9.91</td>
<td>----</td>
<td>---</td>
<td>7.97</td>
</tr>
<tr>
<td></td>
<td>1.75</td>
<td>14.37</td>
<td>8.83</td>
<td>1.24</td>
<td>13.22</td>
<td></td>
</tr>
<tr>
<td>roles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 26: Referential Distance, summary

<table>
<thead>
<tr>
<th></th>
<th>VC/E/HC</th>
<th>PNP</th>
<th>VC/E/HC+NP</th>
<th>PPRO</th>
<th>post- NP</th>
<th>Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>6.42</td>
<td>3.6</td>
<td>4.52</td>
<td>5.4</td>
<td>----</td>
<td>6.13</td>
</tr>
<tr>
<td>Sa</td>
<td>5.56</td>
<td>2</td>
<td>5.29</td>
<td>2.09</td>
<td>----</td>
<td>5.28</td>
</tr>
<tr>
<td>Oa</td>
<td>4.72</td>
<td>1.0</td>
<td>2.87</td>
<td>6.71</td>
<td>3.0</td>
<td>3.93</td>
</tr>
<tr>
<td>S</td>
<td>6.12</td>
<td>3.67</td>
<td>5.38</td>
<td>7.33</td>
<td>.6</td>
<td>4.42</td>
</tr>
<tr>
<td>Ob1</td>
<td>5.09</td>
<td>1.28</td>
<td>3.7</td>
<td>----</td>
<td>---</td>
<td>3.51</td>
</tr>
<tr>
<td></td>
<td>5.64</td>
<td>1.52</td>
<td>4.32</td>
<td>4.46</td>
<td>2.43</td>
<td></td>
</tr>
<tr>
<td>roles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 27: Persistence, summary
4.6. Discussion

Of the four major A and $S_a$ coding devices investigated in this study, I conclude that VC and PPRO are 'short range'\(^6\) (or 'weak') devices (mean RD = 1.68 and 1.2 respectively). This means that these devices are used to code participants that have very recently been mentioned in the discourse, and which therefore are highly topical. NP and VC+NP, on the other hand, are 'long range' (or 'strong') devices (mean RD = 11.07 and 7.95 respectively). Of the four major O and $S_o$ coding devices, E and PPPRO are short range devices (mean RD = 2.18 and 1.3 respectively), while PNP, NP and E+NP are long range devices (mean RD = 13.67, 13.22 and 9.98 respectively). Of the three major oblique coding devices, HC is a short range device (mean RD = 1.67), while NP and HC+NP are long range devices (mean RD = 15.15 and 9.91 respectively). These facts are consistent with the iconicity principle of topic continuity stated in 4.1 in that the VC, E, HC and PPRO devices are the 'smallest' (i.e. they are the most attenuated devices both in phonological size, and in semantic features that they represent) of the major coding devices, and therefore are predicted by the iconicity principle to code the most continuous, least surprising topics. Full noun phrases, on the other hand, should be used to code less continuous topics. That is, when a topic is introduced for the first time, or reintroduced after a
long absence from the discourse stage, a semantically highly specified and phonologically large coding device such as a full NP will be needed to code that topic. A small device is likely to be insufficient to distinguish the topic from among all other potential topics available to the hearer.

Though the quantitative RD figures for this study generally support the iconicity principle of topic continuity, there are at least two 'anomalies' if we were to consider RD to be the only relevant factor in our notion of scalar topicality. In order to explicate these anomalies, it will be convenient to classify the major coding devices into two groups: 1) simple devices and 2) recapitulating devices. The simple devices consist of VC, HC, E, NP, and PPRO. The recapitulating devices are VC+NP, HC+NP and E+NP, i.e. exactly those devices where an NP recapitulates one of the simple devices within the same clause. Occasionally I will refer to a recapitulating device and its corresponding simple device, or vice versa. This notion simply captures the correspondence between a simple device and the same device with a recapitulating noun phrase. NP, and PPRO essentially have no corresponding recapitulating devices. 7

With these definitions in mind, we can outline the two anomalies. Anomaly 1: Recapitulating devices are larger phonologically than simple NP devices, and yet the
recapitulating devices consistently show lower RD indexes. Anomaly 2: The PPRO devices are larger than simple VC, HC and E devices in that pronouns carry high tone and are in other ways phonologically independent. Yet the PRO devices consistently show slightly lower RD indexes than the other simple devices. These problems and others will be dealt with briefly in chapter 8.

Some additional problems to be considered with respect to these figures are 1) under what conditions can the short range devices be used to code more distant participants, 2) under what conditions can the long range devices be used to code recently mentioned participants, 3) what are the functional factors that condition the alternation between simple NP and the recapitulating devices for coding long range participants, and 4) what are the functional factors that condition the use of PPRO versus the other short range devices? Questions 1, 2 and 3 will be dealt with in chapter 5 section 5.1, 5.2, and 5.3 respectively. Question 4 will be considered in more depth in chapter 7.
1. As discussed in chapter 1, anaphoric zeros, as well as all other participant coding devices, are considered to constitute 'mentions' of the participants they code. The terms 'refer to' and 'mention' are to be taken as equivalent in this thesis. Essentially, high topicality for Givón is correlated with large number of mentions within a thematic paragraph, while low topicality is correlated with small number of mentions. It stands to reason that the participants that a text is 'about' will be mentioned more often than others. This conception of topicality is logically independent of the notion of topicworthiness as discussed in section 4.1.1, though the two notions are intimately related.

2. The assumption that participants that have not been mentioned in the discourse have no topicality whatsoever is extreme, but is a logical presupposition of the topic continuity framework. In section 4.1.1 I present some of the problems inherent in this notion of topicality as number of mentions. In 4.3 I outline some of my crude attempts to deal with these problems in my own topic continuity study of Yagua. The fact is that speakers are more likely to talk about certain entities apart from whether those entities have already been mentioned in the
current text or not. It would be unfair to suggest that Givón does not recognize this fact, as more recent work has shown that he and his students are sensitive to other factors affecting topicality (e.g. Givón 1985). However, these factors have as yet not been incorporated into a quantitative study simply because they are so difficult to deal with. The best we have been able to do so far is to control for them.

3. In the late stages of preparation of this thesis, current work by Sun and Givón (1985) came to my attention. In that work Persistence is measured in precisely the manner outlined in this chapter. The fact that researchers working independently of one another came up with identical revisions to the standard methodology lends some support to my contention that this revision is warranted.

4. Though see chapter 5, section 5.2.7 for some evidence that this assumption may be mistaken.

5. Although the claim made in Givón (1983c:19) refers specifically to 'rigid word order languages' such as English (SVO) and Japanese (SOV), the findings for Ute (Givón, 1983d:196), a relatively 'free' word order language, yield the same conclusions. Further studies of
Papago (D. Payne 1984) and Cayuga (Mithun, 1985) also confirm this fact. This is not to say that Yagua is acting 'exactly like' Ute, Papago, Cayuga, Japanese or English in this regard. In fact there are some very significant differences. For example, there is the fact that post-verbal subjects in Yagua require the use of a coreferential prefix on the verb whereas preverbal subjects (within the same intonation unit as the verb) preclude the prefix. Second, the preverbal NP device in Ute is used much more often than the post verbal NP device (39 to 25), whereas in Yagua PNP is much less common than VC+NP (15 to 93). Finally, the RD indices for preverbal and post-verbal NPs in Ute differentiate much more strongly (10.84 for preverbal NPs and 1.48 for post-verbal NPs) than do the RD indices for PNP and VC+NP in Yagua (11.07 for PNP and 7.95 for VC+NP). Thus I conclude that the fact that the preverbal NP devices in both languages are more discontinuous than the post-verbal NP devices is a relatively minor similarity. In almost every other respect they are different.

6. The terms introduced here in quotes are impressionistically defined cover terms, not technical terms. The same is true of several other terms used in this section and elsewhere, such as 'recently', 'highly topical' etc. At this point in the state of the art in
topic continuity studies there is no standard by which we can evaluate in fine detail the differences between various values for the continuity indices. Therefore any conclusions regarding the significance of the difference between any two figures are purely impressionistic. The difference between an RD of 11.07 and 1.68 'feels' very significant, whereas the difference between 1.68 and 2.2 is less clear. I don't claim to have solved all the problems of the topic continuity framework in this thesis. Hopefully, further research will be able to render the methodology more exact.

7. Two coreferential NPs can occur in the same intonation unit in very specific discourse environments such as in answers to information questions, for example:

(111) Speaker A: Táára yi-vááy?
    what 2SG-do/make
    'What are you doing/making?'

Speaker B: Suvçó  ri-iváá-rya  sувçó.
    string:bag 1SG-do/make-INAN string:bag
    'A string bag I am making, a string bag.'

Such constructions occurred very rarely in my corpus, and therefore I will leave their explanation for future research. In this thesis I will be concerned primarily with the major coding devices of the language.
5. Chapter 5: Additional factors affecting choice of coding device

In this chapter I will examine specific instances of coding devices that seem to violate the general pattern in terms of Referential Distance. In section 5.1 I look at the 13 examples of short range devices used to code participants with RD greater than 8, and in section 5.2 I look at the 117 examples of long range devices used to code participants with RD less than 4. Many of the observations made in this chapter are rather speculative, and none are as yet perfectly explicit and predictive. What I have done is categorize the various examples, and suggested possible explanations for their patterning. It may be the case that my explanations can be verified by some psycholinguistic experimental procedure yet to be devised. However, for the purposes of this thesis, they will remain simple post hoc observations. In section 5.3 I will compare the functions of the alternative long range coding devices.

5.1. Short Range devices used to code distant participants

Tables 2, 10 and 18 indicate that there are 13 occurrences of the short range devices VC, E and HC used to code participants with an RD greater than 8 (PPRO is
never used to code a participant more distant than 3 clauses). Of these 13, 4 are central characters, 8 are major characters and 1 is a minor character. Thus there is a ratio of 12 mentions of central or major characters to 1 mention of a minor character. In the corpus at large there is a total of 818 mentions of major and central characters to 210 mentions of minor characters resulting in a ratio of 3.9 to 1. ($X^2$ with Yate's correction: 2.82). Thus status as central or major character is a significant factor in allowing a participant to be coded with a weaker coding device than would otherwise be expected. In the following section I will show that the one instance of a minor character coded with a weaker coding device than expected has an obvious explanation in terms of the context of the utterance. The other anomalous uses of short range devices are best understood in terms of the hierarchical thematic structure of the text. These factors will be discussed in section 5.1.2.

5.1.1. Contextual inference

TC297 is the only instance of a minor character with $RD > 8$ coded with a short range device. It occurs in an episode where the twins are spying on their grandfather to see where he gets water:
(112) Sa-mutá-nuvee-tée sa-diíya-ra, 'jpuu, soon.' 3SG-open-ARR2-INTS 3SG-sight-INAN 'gush!' 'pour!' 'On arrival he opens it in his sight.' (TC297)

The 'it' of this sentence refers to some kind of 'spigot' (as Powlison (1969:115) terms it, though we don't really know its identity) that Grandfather opens to get his water. This spigot is never mentioned again in the story, and is therefore a very minor prop. In this sentence, the simple enclitic device is sufficient to code the spigot since the verb muta 'open' combined with sound words that can only be used for rushing water make it clear that the thing being opened must be the source of the water. It doesn't really matter whether the teller of the story really imagined a spigot (which is an item alien to the Yagua culture) or if it is some kind of tree branch, or plant or whatever. The actual identity of the item is not important. Rather, it is its function as the source of the water that makes it relevant at this point in the story, and for that purpose the verb and the sound words make the reference as clear as necessary.

5.1.2. Levels of Topicality

If the above-mentioned use of a weak coding device is explained in terms of contextual inference, then there are 12 instances remaining to be explained, all of which are either central or major participants. In this section we will see that the fact that all of these examples are
either central or major participants is due to the hierarchical nature of topicality. The central characters are topical throughout the discourse, and therefore are highly topicworthy at any given point in the discourse. Major characters are highly topicworthy throughout particular sections of the discourse. Minor characters, on the other hand, come and go and are, in general, unlikely topics at any point. This inherent topicworthiness of central and major participants is enough in the cases cited in this section to overcome a high distance index.

Of course this is not to say that hierarchical structure is more important than distance in determining whether a strong or a weak coding device need be used -- in the vast majority of cases distance is clearly the crucial factor. It is only in those few cases where the distance index is overridden that levels of topicality prove relevant. Looking at the 12 remaining instances of central or major characters where referential distance does not explain the use of a short range coding device, there are particular cases where the hierarchical structure of the text is an obviously relevant conditioning factor. I will illustrate four of these cases here.

In TC213 (see Appendix 4) the following sentence occurs with the simple enclitic device used to refer to
the object, the spirit father's magic flute, even though the flute had not been mentioned for 60 clauses:

(113) Santya  jįįta váriy riiniyra.
    sa-nťya  jįįta váriy ri-y-jîny-râ
3SG-test JIITA then 3PL-in:presence-INAN
 'Then he tested it in their presence.' (TC213)

The flute is then mentioned three more times in succession, but never with a NP. The last previous mention of the flute is in TC153, where the twins test it on their grandmother. Between these two instances of flute testing, however, there is an entire episode in which the twins go about creating all the Yagua clans. Thus the hierarchical structure of the text at this point can be diagrammed as one episode embedded in another:

(114)

Flute episode
  
    Clans episode

TC153
    TC154
TC211
  TC213

In TC153 there is a problem to be solved, namely how to avenge the death of the twins' father. TC154 to TC211 is how the twins go about solving the problem. In TC213 (TC212 is a transition marker) the problem is solved and the action can continue where it left off in TC153. The
flute resumes as topic because its topicality spans the creation of the clans episode.

Another example of topicality spanning an embedded episode occurs in TC459. Here the twins, though the central characters of the entire narrative, have not been on stage for 62 clauses, and have not been mentioned at all for 65 clauses. And yet in TC459 they are coded with simple verb coding:

(115) Jásčiy jį́täntiy naanį́niy rānaachọ pūriy.
įsìiy-siy jį́ta-ntiy naada-jįniy rā-naačõ pūriy
there-from JIITA-REP 3DL-come INAN-after pifayo
'From there they (2) came after pifayo.' (TC459)

It is significant that the span of text since the previous mention of the twins is clearly definable as a episode. In it the major characters are a water snail and a land snail, and the creation of the Amazon river is explained. The twins are last mentioned in the episode in which they make water available, then comes the snail episode, and then TC459 introduces another episode on how the twins make pifayo available. Clearly the twins, being the highest level topics of the entire discourse, are topic-worthy enough at this point to be coded with the simple VC device.
Ten of the 12 instances of short range devices coding high RD topics are explainable in terms of the above notion of 'levels' of topicality. Two others are not obviously explainable in this way, though I will contend that they in fact do constitute examples of high level topics being topicworthy even though their RD is quite high. Each of these happens to be where one of the two twins is introduced into the discourse:

(117) Naanutuvqachu ji'ita su'unaay ruudii'mu.
naada-tuvqachu ji'ita sa-junaaay ruudii-mu
3DL-hear JIITA 3SG-cry trash:heap-LOC
'She hears him crying in the trash heap.' (TC22)

(118) Naanutuvqachuntiy su'unaantiy.
nada-tuvqachu-ntiy sa-junaaay-ntiy
3DL-hear-REP 3SG-cry-REP
'She again hears him crying.' (TC30)

In TC22 Elder Brother is introduced, and in TC30 Placenta is introduced. We might speculate that even though the twins have not been mentioned prior to this point in the text, they are still highly topicworthy because presumably the hearers know the story well, and understand that the Twins Epic is being recounted, even though the twins
themselves have not yet been mentioned. Thus we can consider these clauses to be further examples of higher level topics that are topicworthy at any point in the text. At this point, however, the level of topicality rises to the cultural and social setting of the story itself, with all the activities of the group that had taken place since the last telling of the story constituting an 'embedded episode' in the ongoing collective awareness of the Twins Epic.

5.2. Long range devices used to code recently mentioned participants

In this section we will look at specific instances of long range coding devices (all those involving NPs) used to code recently mentioned participants. The long range devices distribute much more evenly within the possible range of RD variation than do the short range devices, i.e. there is a large number (117) of NPs used to code participants with RD less than 4 (see tables 3, 4, 11, 12, 13, 21 and 22). Whereas the number of short range devices used to code long distance participants (RD > 8) is relatively small (13 to be exact). In the following sub-sections I will outline seven conditions under which long range devices are used to code recently mentioned participants, and will give specific examples of each one. In sub-section 5.2.8. I will also present examples

155
that do not seem to fit nicely into any of the other seven categories. The examples presented in these sections were chosen primarily for their brevity. All but one involve long range devices used to code participants whose RD is 1, allowing most passages cited to be held down to two clauses in length. Hence the examples presented do not exactly constitute a random sampling. However, they do, I feel, adequately represent each of the categories posited.

5.2.1. Ambiguity

Of course a very likely reason for using a strong coding device where referential distance is low is where the Ambiguity (as defined in section 4.2) is high. Of the 117 examples of strong (long range) coding devices used to code participants with RD less than 4, 61 were used where the Ambiguity was clearly high (i.e. $A = 2$). The following excerpt illustrates this phenomenon in the First Squirrel text:

(119) a. Naada-rą́y jį́ta jás-chiy.
    3DL-jump JIITA there-from
    'They jump from there.' (FSQ9)

    b. Sa-rą́y jį́ta múcayu munátyį́-i sa-jísiy.
    3SG-jump JIITA squirrel first-NOM 3SG-before
    'The first squirrel jumps before him.' (FSQ10)

In 119a the squirrel and the deer are collectively referred to with the dual VC form naada, and so in 119b the RD for both is 1. In 119b the squirrel is singled out
from the deer by the use of a full NP in addition to a VC prefix. Without the NP 119b would be ambiguous as to who jumped first, and the whole point of the sentence would be lost.

In the Twins cycle, the following passage occurs:

(120) a. Sa-jiŋa jiŋtə su-šiŋiy.  
3SG-fly JIITA 3SG-after  
'He (Placenta) flies after him (Grandfather).'  
(TC296)

b. Sa-múta-nuyee-téé sa-diíya-ra, 'jpuǔ, soon'.  
3SG-open-ARR2-INTS 3SG-sight-INAN gush! pour!  
'He (G) opens it in his (P) sight, "gush! pour!".'  
(TC297)

c. Sa-rání jiŋta naada-jəŋpa rá-áriŋy.  
3SG-stand JIITA 3DL-grandfather INAN-under  
'Their grandfather stands under it.'  
(TC298)

In 120a (TC296) the identities of the two participants are clear from the context -- Grandfather has just left to bathe, and Placenta has transformed himself into a hummingbird in order to follow Grandfather and find out where he gets water. Again in 120b the identities of the participants are clear from the context -- the one who has gone to bathe is the only one likely to engage in an act involving gushing and pouring, while the other, the spy, looks on. In 120c, however, the context does not help us quite so much to identify the single participant. Yes, we could say that the bather is the only one likely to stand under the flow of water. However, the coding device used to refer to the water here is not explicit. It would not
be clear that the thing being stood under is the water flow if the clause did not make explicit reference to the bather. Furthermore, in 120a and 120b, both Placenta and Grandfather are mentioned in such a way, both pragmatically and syntactically, that precludes coreferentiality between the two mentions within either of these clauses. Thus the hearer knows there are two participants involved in each of these clauses, and must identify one as Placenta and the other as Grandfather. The semantics of these multi-participant clauses is explicit enough to render this task fairly simple, as outlined above. In 120c, however, there is only one participant mentioned, and the hearer must determine whether that one is Placenta or Grandfather. The semantics of this single-participant predicate does help the hearer as much as do the other, more explicit, predicates in 120a and b. Thus the use of a stronger coding device to help the hearer with this identification is justified.

5.2.2. Elaboration

Eleven (11) of the 117 examples of strong coding devices used to code recently mentioned participants are what I will call elaborations. Elaboration is where a participant is mentioned in one clause and then further specified, either by noun-phrase modifiers or by a predicate that attributes additional qualities to that
participant. One example of this phenomenon is found in KT20:

(121) a. Naada-supátay jíjita.
    3DL-come:out JIITA
    'They come out.' (KT19)

    b. Naada-supáta-myáa jíjita-váriy
    3DL-come:out-PERF JIITA-then

    dá-nu-jýý yánu-jýý
    2-CF:ANIM-2 male-dual

    'Two males have then come out.' (KT20)

In 121b it is fairly obvious that a full NP is used to code the subject because the subject is being quantified and specified as to gender. This consideration overrides the fact that the two males had been mentioned in the previous clause.

A similar example occurs in another text, the Hunter's Narrative:

    3SG-see-REP INAN-lie 3SG-head
    'He also sees his head lying there.'

    b. Jánariy juno tiryqq.
    deer head lie
    'A deer's head lies there.'

Again it is clear that the head in 122b is being specified as a deer's head as opposed to any other possible head. For this purpose a full NP is required even though the head had been mentioned in the previous clause.
5.2.3. Discourse Promotion

Twelve (12) of the 117 instances of strong coding devices used to code recently mentioned participants are instances of what John Du Bois (1985 UCLA class lectures) calls discourse promotion. This is the phenomenon whereby a participant is first mentioned as an oblique, or possessor, using an explicit coding device such as a full NP. Then in the immediately following clause this participant is again coded with a strong coding device, but 'promoted' to a more central semantico-syntactic role, i.e. A, O or S. For example:

    3DL-see INAN-DAT deer jawbone two
    'They see two deer jawbones.'

b. Rá-raníy jánariy múdii naana-ajííjú.
    INAN-stand deer jawbone 3DL-in:front
    'The deer jawbones stood in front of them.'

In 123a the jawbones are first mentioned as a full NP in the dative case (the verb díiy meaning 'see' requires that the entity seen appear in the dative case). Then in 123b the jawbones are repeated as a full NP but this time 'promoted' to the S role.

A similar example occurs in TC70:

(124) a. Si-itóó-ta jìjì naadi-imú jì-tyέyada-ra.
    3SG-arrive-TRNS JIITA 3DL-LOC 4-grandma-INAN
    'He takes it to his own grandmother.' (TC69)
b. Naada-díryey jii jì-ityéyadá-yu.\(^2\)
3DL-welcome JJITA 3SG-grandmother-REFL.
'His own grandmother welcomes him.' (TC70)

Here the grandmother is mentioned with a full NP in 124a in an oblique role, and again in 124b as an S participant.

The phenomenon of discourse promotion illustrates that not all mentions are created equal in terms of activation of participants in memory (Chafe, 1985). In particular, it seems that mentions of participants in non-core roles such as obliques do not necessarily suffice to activate a participant to the point where it can subsequently be coded with less explicit devices. This fact suggests a question for further research into coding choice in discourse: how do the various semantico-syntactic roles compare in terms of the degree to which they activate participants in memory? To answer this question we would have to introduce only a minor complication to our methodology for calculating RD indices -- in addition to counting clauses back to the last mention of a given participant, we would also record the role of that last mention. Then we could correlate RD with role of last mention. The following is a possible working hypothesis concerning this correlation:

Let MRD1 be the mean of all RDs between coding device X and the last mention of the participant
coded by X where that last mention is in an oblique role.

Let MRD2 be the mean of all RDs between coding device X and the last mention of the participant coded by X where that last mention is in a core role.

MRD2 will be significantly greater than MRD1.

If this hypothesis can be proven, then we would have an empirical basis for the intuition that core roles activate participants more strongly than do oblique roles. The same kind of hypothesis could be devised for any pairing of roles, thus leading to a weighting of the various semantico-syntactic roles in terms of how strongly they activate participants in memory. This would certainly be an interesting and fertile direction for future research.

5.2.4. Dative objects

In both the Hunter's Narrative and in the Twins Cycle there is a pair of central participants that interact throughout the text. When one member of the pair speaks to the other, there is a marked tendency for the addressee to be coded with a full noun phrase, even though that participant may have been very recently mentioned, and
even though the noun phrase in question apparently does nothing to disambiguate between the two members of the pair. For example:

(125) a. Jutçø-já-śsiy si-imú ji-tyeerį-nti-mii. arrive-o'land-PROX:1 3SG-LOC 4-brother-REP-3SG
    'He arrives there to where his brother is again.' (TC304)

b. Sa-tũčchu-nuvee jįj ĺí-iva ji-tyeerį. 3SG-speak-ARR2 JIITA 3SG-DAT 4-brother
    'He speaks on arrival to his own brother.' (TC305)

In 125a one participant is coded explicitly with the NP meaning 'his own brother.' In 125b the same NP is used as a dative complement of the verb tũčchu 'to speak.' Ambiguity is, technically, high at the point of 125b, since both brothers are on stage. However, the NP in 125b does nothing to relieve this ambiguity. Since both participants are brothers to each other, the NP could refer to either one. In fact we know from the context that the brother that arrives in 125a is the one that speaks in 125b, but we could just as easily have come to this conclusion were the brother spoken to in 125b coded with a less explicit device.

Similar examples occur in the Hunter's Narrative:

(126) a. Sį-įmyi-rya ríchanů naanu-moc-mú. 3SG-eat-INAN shiringara 3DL-face-LOC
    'He eats shiringara fruit in front of them.'
b. Szu-ụta-chi-iva yi-saŋ vichi-ি
3SG-say-3SG-DAT 4-COM be-NOM:ANIM
'He says to his own companion . . .'

In 126b the noun phrase meaning 'his companion'
(literally: 'His own being-with one', i.e. 'the one who is
being with him', or something like that) does nothing to
disambiguate the reference of the addressee. Both hunters
are companions to each other, and in this case it could be
either one that is speaking. The two hunters are simply
not differentiated at this point in the story.

There are eleven (11) examples of this use of full NP
for recently mentioned participants in the corpus. The
only explanation I have for this phenomenon at present is
purely speculative. Since in every case there is a
'semantically appropriate' referent in the immediate
context, perhaps the speaker feels constrained to use a
device normally used in situations of high ambiguity, even
though in these particular cases a full NP does not
accomplish the task of disambiguation. Under this
analysis, these examples would be additional examples of
the use of full NP in situations of high ambiguity
(section 5.2.1).

5.2.5. Thematic Structure

Patricia Clancy (1980) shows how coding choices in
English and Japanese narratives are at least partially
influenced by the thematic structure of the text. In
particular, noun phrases tend to be used at thematic junctures, even though RD may be low. The particular thematic boundaries that Clancy considers are 'world shifts', i.e. shifts between the 'real world' where the narrator and an interviewer are the participants, and the 'story world'. Clancy also considers 'episode boundaries.' Barbara Fox (1984), working primarily in the framework of 'story grammar' (Rumelhart 1975), makes similar observations for English.

The general observation that thematic junctures are sometimes accompanied by stronger than otherwise necessary coding devices is also relevant for Yagua, though the nature of the units and boundaries that are especially relevant to Yagua is still a matter for further investigation. In the following excerpt Squirrel is referred to with a modified NP 'the one who makes him jump' even though he is mentioned in each of the 8 previous clauses, and is therefore a highly topicworthy participant:

(127) a. Squirrel: 'Yi-núúy rá-ə ráá-kyu.'
2SG-see 1sg-IRR jump-potential
'You see, I can jump!' (FSQ11)
b. Sa-niy suvŋ-tyéé jifíu munátya sų-ṳmutqasá
3SG-MALF fear-INTS this ancestor 3SG-behind
játiy sa-r̤a-ñii.
REL 3SG-jump-3SG

This ancestor (the deer) is really afraid behind
the one that makes him jump. (FSQ12, 13)

1SG-IRR fall-might here-DAY snake-inside
'I might fall here inside a snake.' (FSQ14)

However, when we look at the story structure of the text
we notice that FSQ12 (127b) occurs at a fairly major
thematic boundary. Up to FSQ11 (127a) the theme is 'the
squirrel tries to trick the deer into crossing the stream
on the back of the boa.' The theme beginning in FSQ12,
however, is 'the deer debates within himself.' There is an
obvious shift from the external actions of the squirrel to
the internal state of the deer. In terms of Rumelhart
(1975), this shift corresponds to an 'event' boundary
where the sequence beginning in FSQ12 (and continuing for
several clauses) is a 'reaction' to the sequence ending in
FSQ11. Of the 117 examples of long range coding devices
used to code recently mentioned participants, four (4) are
explainable in terms of some notion of thematic boundary,
though the exact character of those boundaries is still to
be defined. Not all are as clearly related to story
structure as 127 is.
5.2.6. Crucial inanimate participants

In the Twins Cycle there are three examples of inanimate participants introduced into the discourse with multiple full noun phrase mentions in succession. In each of these cases, the inanimate participant involved is one which is particularly salient in the subsequent episode. Each of the three instances is at the beginning of a major episode of the Twins cycle, 1) how the twins obtain water, 2) how the twins obtain pifayo, and 3) how the twins obtain corn. As might be expected, water, pifayo and corn are the salient inanimate participants involved:

(128) a. Sa-tada-chu-muu-myáá jį́ta Rísu
3SG-recede-cause-COMPL-PERF JIITA God
naana-jisi-ntí-rya jáá-ntíy.
3DL-from-REP-INAN water-REP

'God had also caused the water to recede from them.' (TC272)

NEG water-not:exist-any:more
'There is no more water.' (TC273)

c. Mũũ-chí-țiúumaa naada- jáápa-mu-síy
there-from-now 3DL-grandfather-LOC-from
ji-ři-yą-a-ra jáá.
4-get-DIST-INAN water

'Now they repeatedly get water from their grandfather.'
(TC274)

According to the definition of the various character statuses (chapter 4, section 4.3), water is a minor character, since it is never mentioned more that 4 times
in any stretch of 20 clauses. However, it is clearly a major participant in this episode, since the whole episode is about how the twins obtain water. The use of 3 full noun phrases in a row to code the water iconically represents the importance of water to the episode. It is interesting that crucial animate participants are not introduced in this way. In fact the Twins themselves, in the same version of the same story, are first mentioned with simple verb coding (TC22 and TC30, see section 5.1.2). This observation is understandable in terms of the fact that inanimates are less likely to be important participants than are animates. When important animates are introduced, no special coding other than whatever is needed to make their identity clear is necessary. For important inanimates, however, special coding is necessary in order to signal that something unusual is going on. Whereas mention with a single NP may suffice to activate an animate participant for future deployment, inanimates, by virtue of the fact that they don't characteristically persist as important participants, need the reinforcement of several full NP mentions in order to be sufficiently activated in the hearer's memory.

The following sentences introduce the episode in which the Twins obtain pifayo from their stingy grandfather:
(129) a. Jás-chiy jį́ta-ntį́y naani-inį́y
    there-from JIITA-REP 3DL-come
    rá-naachó pų́riy.
    INAN—towards pifayo.
    'From there they come looking for pifayo.' (TC459)

    pifayo-DAT-now JIITA 3DL—pester—REP—3SG
    'They now pester him for pifayo.' (TC460)

Here pifayo is mentioned twice in a row with a full NP. This is not technically speaking an instance of discourse promotion, since both mentions of pifayo are in oblique roles. Also it is not elaboration, since there is no modification of the reference of pifayo in the second sentence. Like water in the previous set of examples, pifayo in 129a and 129b goes on to be a significant element in the subsequent development of the episode introduced in 129a. Of the 117 examples of long range devices used to code recently mentioned participants, 5 are explained in terms of this notion of 'introduction of crucial inanimate participant.'

5.2.7. After mention in quotes

There are four (4) examples in my corpus of full noun phrases being used to code participants that had been mentioned in a quote in the immediately preceding clause. Because of my method of counting mentions of participants within quotes as full mentions, the RD for these instances is 1. For example:
(130) a. 'Ra-chikidi-naachqö vurya-qa
1SG-intestines-towards 1PLINC-IRR

junúu-yqa-téé-kii.
look-DIST-INTS-must
"We must look all around for my intestines!"
(TC517)

b. Diy ri-jyetyá-ásiy ri-inúu-rya.'
there 3PL-throw-PROX1 3SG-see-INAN
'There I saw them throw them.'" (TC518)

c. Sa-ryiy jííta jí-chikidi.
3SG-get JIITA 4-intestines
'He gets his own intestines.' (TC519)

In 130c the intestines are referred to with with a full NP even though they were mentioned in the preceding two clauses, and there are no other inanimate participants cluttering the discourse stage at this point. My conclusion is that perhaps my method of counting mentions within quotes as full mentions needs to be revised. It seems from examples such as this that mentions of participants within quotes, like mentions of participants in oblique phrases, are not as salient as mentions of participants in core semantico-syntactic roles in straight non-quote clauses. This hypothesis could be tested in a manner similar to that outlined in section 5.2.3 for oblique mentions.

5.2.8. Residue

Finally, there are nine (9) examples of long range devices used to code recently mentioned participants that do not seem to fall into any of the above categories, and
which don't have any obvious idiosyncratic motivation. A couple of these will be presented here:

(131) a. Sa-deenu-dee-rá yí-náá-tyényiy
    3SG-child-DIM-NOM:NEUT 4-cry-cause

    váácha       jii-tqasá.
    huapo:monkey branch-middle

    'The huapo monkey makes his own child cry in the middle of the branch.'

b. Sa-a-ta-tyén-níí tápi raatyá-déé jíí-va.
    3SG-jump-cause-3SG slow careful branch-DAT

    'He makes him jump slowly, carefully along the branch.'

In 131b there is no obvious reason why the branch is coded with a full NP. This example is somewhat akin to discourse promotion (see section 5.2.3) in that the reference to branch in 131a is in an oblique role. However, there is no 'promotion' involved since the reference to the branch in 131b is also in an oblique role. Nevertheless, the explanation of discourse promotion in terms of less salience ascribed to mentions of participants in oblique roles would still potentially be relevant here, i.e. the branch is referred to with a full NP in 131b because the speaker judged the mention of the branch in 131a to insufficiently activate that participant for further non-explicit mention.

Another unexplained example of use of a full NP occurs in KT45:
(132) Rá-jùw-yaa-múy naada-šuťá. INAN-fall-DIST-COMPL 3DL-shelter 'Their shelter fell to pieces.' (KT45)

At this point in the story the shelter has an RD of 3, where the last mention of the shelter is in the 0 role. There are no potentially interfering inanimate participants on stage, and there is no other obvious reason why the speaker did not use a less explicit coding device. Hence this is an 'unexplained' example. It may be the case that since this is an inanimate participant, and not a very salient one at that, an RD of 3 is sufficient for it to decay from active memory, whereas animate and otherwise more salient participants decay more slowly. This observation suggests further hypotheses which will have to await future research.

5.3. Alternative long range devices

In this subsection I will investigate the use of the simple NP device versus the use of a recapitulating device, as defined in chapter 4, section 4.6. Table 28 illustrates the distribution of simple NP and recapitulating NP devices according to the central, non-central distinction:
<table>
<thead>
<tr>
<th></th>
<th>Central</th>
<th>Non-central</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP alone</td>
<td>3</td>
<td>121</td>
</tr>
<tr>
<td>NP recapitulating short form (VC, E or HC)</td>
<td>50</td>
<td>140</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>261</td>
</tr>
</tbody>
</table>

$X^2$ with Yates's correction: 28.8.

Table 28: Distribution of alternative long range coding devices by participant status.

Table 28 reveals that central characters are much more likely to be coded with a recapitulating NP than with a simple NP, whereas for non-central characters the choice is about equal. The $X^2$ figure of 28.8 indicates that the central non-central distinction is one factor determining the choice between simple NP and recapitulating coding devices. This observation is formalized as follows:

(133) Central characters tend to be coded with recapitulating devices rather than simple NP devices, all other factors being equal.

Needless to say, however, we still must look elsewhere for an explanation of the simple-NP / recapitulating-NP choice for non-central characters.

Table 29 illustrates the average persistence indices for the simple and recapitulating NP devices:
<table>
<thead>
<tr>
<th></th>
<th>Central</th>
<th>Non-central</th>
<th>All characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP alone</td>
<td>9</td>
<td>1.26</td>
<td>1.46</td>
</tr>
<tr>
<td>NP recapitulating short form (VC, E or HC)</td>
<td>7.13</td>
<td>3.26</td>
<td>4.32</td>
</tr>
<tr>
<td>Combined Long range devices</td>
<td>7.24</td>
<td>2.35</td>
<td></td>
</tr>
</tbody>
</table>

Table 29: Mean persistence indices for alternative long range coding devices by character status

Table 29 illustrates two facts. First, central characters are more persistent than non-central characters. This fact is not particularly interesting since the definition of minor character (one subclass of non-central characters) is based on a small number of mentions (5 or less) in a particular span of text. Therefore a mention of a minor character can never have a P index of more than 4. Also, it is simply intuitive that the central characters of a story will, in general, persist as topic to a greater extent than will non-central characters, if for no other reason than that they are mentioned more often. For any randomly selected span of text, there will probably be more mentions of individual central characters than of other individual characters. The second fact that table 29 reveals, however, is more interesting. Mentions of non-central characters with the recapitulating devices have a P index that averages over twice that of mentions with the simple NP devices. Thus for non-central characters the index of persistence is a crucial factor in determining whether a simple NP device
is used or whether a recapitulating device will be used. Non-central characters that are 'destined' as it were to figure prominently in the ensuing discourse are more likely to be coded with a recapitulating device than with a simple NP device. Conversely, non-central characters coded with a recapitulating device are destined to figure more than twice as prominently in the ensuing discourse as those that are coded with the simple NP device. This observation is formalized in 134:

(134) All other factors being equal, for non-central characters, recapitulating devices are used for more persistent participants.

Table 30 reveals that this generalization distributes unequally among the three general semantico-syntactic roles:

<table>
<thead>
<tr>
<th></th>
<th>A/S_a</th>
<th>O/S_o</th>
<th>Obl</th>
<th>All roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple NP:</td>
<td>1</td>
<td>2.43</td>
<td>1.28</td>
<td>1.26</td>
</tr>
<tr>
<td>Recap NP:</td>
<td>3.97</td>
<td>2.65</td>
<td>2.52</td>
<td>3.26</td>
</tr>
</tbody>
</table>

Table 30: Mean persistance indices, non-central characters, simple NP vs. recapitulating devices

Table 30 shows that most of the difference in P indices between NP and recap NP devices stems from the categories of A and S_a participants, and obliques. The P index for O and S_o devices is not substantially higher than that of the corresponding simple NP device. Table 31 summarizes the P indices for non-central characters in the O/S_o
category broken down into its three logically distinct subcategories:

<table>
<thead>
<tr>
<th></th>
<th>$S_0$ (pred-nom)</th>
<th>$S_0$ (verbal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple NP:</td>
<td>3 (n=16)</td>
<td>.6 (n=5)</td>
</tr>
<tr>
<td>E+NP:</td>
<td>1.97 (n=32)</td>
<td>5.29 (n=7)</td>
</tr>
</tbody>
</table>

Table 31: Mean persistence indices for non-central characters, long-range devices, $0/S_0$ categories

Although the number of examples is in many cases too small to make strong claims, it is clear from table 31 that the 0 category violates the general observation made in 134. The $S_0$ categories, both verbal and predicate nominal, are consistent with 134, although more examples would be needed in order to draw firm conclusions.

Up to this point I have been considering the simple NP devices as a group, without distinguishing them from one another, except insofar as they code different semantico-syntactic roles. However, there is a logical and potentially significant division within the simple NP devices, namely the distinction between prehead simple NPs (for $A/S_a$ and Obl categories), and posthead simple NPs (for the $0/S_0$ categories). In particular we might expect that a preverbal NP might have a discourse pragmatic status that contrasts with a postverbal NP, independent of the semantico-syntactic role of that NP (Doris Payne, 1984 and others). Table 32 illustrates the P and RD indices for preverbal simple NPs and post-verbal simple NPs:
<table>
<thead>
<tr>
<th>Preverbal (A/Sₐ)</th>
<th>Post-verbal (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD index:</td>
<td>11.92 (n=13)</td>
</tr>
<tr>
<td>Persistence:</td>
<td>1 (n=13)</td>
</tr>
</tbody>
</table>

Table 32: Summary of RD and P indices for non-central characters, simple NP coding devices.

Table 32 reveals that the preverbal NP device does not significantly contrast with the post-verbal device in terms of referential distance. However, it does contrast in persistence. The post-verbal device codes participants that are on the average three times as persistent as the pre-verbal device. Translated into semantico-syntactic roles, this observation tells us that non-central characters that are not going to persist in the discourse are more likely to be coded as A or Sₐ than 0. Conversely, non-central characters that are destined to be mentioned more often (in relation to other non-central characters) are more likely to be coded as 0. This fact accounts for the apparent anomaly observed in Table 31 in that the relatively large persistence figure for simple NP coding an 0 participant is seen as contrasting with simple NP coding A and Sₐ participants rather than with E+NP coding other 0 participants. Table 33 shows that the recap strategies similarly contrast significantly only in persistence.
VC+NP (A/S_a) | E+NP (0)
RD index: 9.03 (n=66) | 11.71 (n=35)
P index: 3.97 (n=66) | 1.97 (n=32)

Table 33: Summary of RD and Persistence indices for recap devices, non-central characters, A/S_a and 0 categories

Table 34 compares just the persistence indices of the simple and recap devices:

\[
\begin{array}{c|c|c}
A/S_a & 0 \\
\hline
\text{Simple NP:} & 1 (n=13) & 3 (n=16) \\
& \text{(preverb)} & \text{(post-verb)} \\
\text{Recap devices:} & 3.97 (n=66) & 1.97 (n=32) \\
\end{array}
\]

Table 34: Mean persistence indices, non-central characters simple and recap devices, A/S_a and 0 categories

Table 34 suggests (though there is certainly room for further investigation) that the distinction between the P indices of the simple NP devices is due to the difference in ordering of the NP with respect to the verb, and not with the difference in semantico-syntactic role. That is, for the other long range devices, namely the recap devices, no such distinction holds. In fact the opposite is true: A/S_a participants coded with the VC+NP device are more persistent than 0 participants coded with the E+NP device, though this correlation is not as strong (about 2 to 1) as the reverse correlation for the simple NP devices (about 3 to 1). If semantico-syntactic role were what was sensitive to the P index, we would expect a roughly
equivalent ratio between \( P \) indices of simple NPs and recap devices coding \( A/S_\alpha \) and 0 participants.

5.4. Summary

In sections 5.1 and 5.2 of this chapter I have looked at various 'anomalies' to the general patterning of coding devices in terms of Referential Distance. The anomalies fall into two general classes, 1) short range devices used to code relatively distant participants, and 2) long range devices (i.e. all those involving full NPs) used to code recently mentioned participants. In the first class, most examples are explained in terms of the hierarchical nature of topicality, i.e. participants are highly topicworthy (and therefore codable with reduced coding devices) throughout the span of text in which they figure prominently, even though they may cease to be mentioned for long stretches within those spans. In the second class, most examples are explained in terms of the index of Ambiguity, i.e. the presence of other semantically appropriate participants in the immediate context. In addition to the examples explainable in terms of Ambiguity, there are several other classes of examples of long range devices used to code recently mentioned participants. These classes are discussed in sections 5.2.2 through 5.2.7, and tentative, sometimes speculative, explanations are provided. Finally in section 5.2.8 some
examples of unexplained uses of long range devices are presented.

In section 5.3 of this study, I have looked at the alternative long range coding devices (simple NP versus recapitulating) for each of the various semantico-syntactic roles. The following statements characterize the findings of this study with respect to the functional differences between the alternative long range coding devices:

1. All other factors being equal (i.e. character status, and semantico-syntactic role), the recap devices code more persistent participants than do the simple NP devices.

2. Postverbal simple NP (i.e. O and $S_o$ roles) is used to code more persistent participants than preverbal simple NP.

The general conclusion of section 5.3, then, is that while Referential Distance distinguishes long-range from short-range devices in a general way, other factors must be considered in order to sort out the specific functions of the various coding devices. The index of Persistence proves particularly useful in sorting out the functions of the various coding devices which fall into the general category of 'long-range' devices, as defined by the RD
index. I will have more to say concerning this observation in chapter 8.
FOOTNOTES to chapter 5

1. As mentioned in chapter 4, section 4.2, Ambiguity proved to be a very difficult measure to calculate due to the slipperiness of the notion of 'semantic appropriateness'. In the calculation of Ambiguity for the 117 long range devices used to code recently mentioned participants, I tried to be as conservative as possible in positing the presence of a semantically appropriate referent on the discourse stage, precisely because I was interested in what factors other than strict ambiguity might be triggering the use of a stronger coding device. That is to say, some of the other six conditions I found for using extra strong coding devices may well be subsumed under Ambiguity in a framework that only recognized Ambiguity as a possible reason for using a stronger than expected coding device.

2. See chapter 3, section 3.2 for an explication of the use of the reflexive suffix to express coreference with a previous possessor rather than subject.
6. Chapter 6: Discourse motivations

for $S_o$ coding

As noted briefly in chapter 2 (section 2.2.1), certain single participant predicates in Yagua may employ $S_a$ or $S_o$ coding for their subjects. Contrary to observations made for other languages by Klimov (1977), Dixon (1979), Comrie (1978) and others, however, the difference between $S_a$ and $S_o$ coding on Yagua verbs does not correlate with a difference in semantic role. Thus we must look elsewhere for an explanation for this morphosyntactic distinction. Preliminary work on another Amazonian language, Pajonal Campa (Heitzman, 1982), leads me to suspect a correlation between $S_o$ coding and certain features of discourse structure. In this chapter $S_o$ coding on verbs is examined in light of a quantitative study of Yagua discourse.

6.1. $S_o$ coding and locomotion

In all 'stative/active' languages there are certain lexically conditioned 'exceptions' to the generalization that $S_a$ coding is used for semantically active/volitional subjects while $S_o$ coding is used for stative/non-volitional subjects (see Merlan, 1985, for an extensive classification of stative and active predicates.
according to semantic type). If such exceptions were truly arbitrary, we would not expect there to be any systematic correspondence between the classes of exceptions from one language to the next. However, there is a tendency in the languages of the world for predicates of **locomotion** to pattern with stative predicates, either in terms of morphosyntactic coding of the subject, or in other respects, even when such predicates are clearly active and volitional. This tendency is observed in Italian (Rosen, 1983), a non--stative-active language, in that verbs of locomotion take the 'stative' auxiliary and possess certain other features of stative predicates. It is reported by Whorf (1956[35]:30) that predicates of 'relative motion' in Hopi are expressed by 'nominal sentences', i.e. predicate nominals, rather than verbs. In Guaymi, a fairly strict stative/active language (T. Payne, 1982b), **S** coding is obligatory for the verbs 'go' and 'come'. Even in English, certain verbs of locomotion pattern with stative verbs in terms of attributive past participle formation. In English an attributive past participle formed from a stative intransitive verb will modify the **S** of the verb, as in: 'a grown woman', 'a fallen log', 'a broken down car', etc. This cannot in general be done with active intransitive verbs: '*a walked man', '*a spoken child', etc. However, there are certain fairly fixed expressions based on active verbs for which
past participles can modify the S of the verb. It seems that all such expressions are based on verbs of locomotion: 'an escaped prisoner,' 'a returned veteran,' 'a risen savior,' etc.\(^2\)

In English (and also Italian, as observed by David Perlmutter, p.c.) it seems that the commonality between stative verbs and those verbs of locomotion that pattern with the stative verbs has something to do with 'resultant state.' That is, 'a grown woman' refers to an individual who is presently in a certain physical state as a result of having undergone the action described by 'grow.' Similarly, 'an escaped prisoner' refers to an individual who is presently in a locationally defined state as a result of having escaped. The same holds for 'returned veteran,' 'risen savior' and others. We can't, on the other hand, say that upon speaking a child enters into a new state such that 'a spoken child' would be a semantically coherent way of referring to the child.

In this section I have shown that there exists some cross-language evidence that intransitive predicates of locomotion often share morphosyntactic properties of intransitive stative predicates, even though subjects of locomotion predicates are often active and volitional. To the extent that these facts represent a recurring pattern in the world's languages, a theoretical account is in order. As a step towards such a theoretical account, I
will turn to a discussion of $S_o$ coding in Pajonal Campa and Yagua.

6.2. Locational scenes and climax

In the following discussion of $S_o$ coding in Pajonal Campa and Yagua, the notions of locational scene and climax will figure prominently. In this section I would like to provide working definitions of these terms.

6.2.1. Locational scenes

Locational scenes are spatially defined areas of attention, parallel to scenes in drama, i.e. the sub-units of a play bounded by a lowering and subsequent raising of the curtain. In spoken discourse, of course, visual representation per se is not strictly relevant. Nevertheless, the story-telling process does involve the mental elaboration of a 'world' within which the story being told is enacted. Story-tellers manipulate that world in various ways in order to achieve the particular communicative effect they desire. One way in which that world might be manipulated is through the use of scenes and scene changes. When Xenophon says of Cyrus in the Anabasis 'from there he marched on' he moves the Greek army from one locationally defined scene to another. The reader or hearer of this passage knows that many presuppositions that might have existed in the world of
the discourse before this point are now erased, and new ones are likely to be introduced. The audience's attention moves with the Greek army away from a particular scene into another (example from Grimes 1975:218).

It stands to reason that locational scenes and scene changes will play a more prominent role in certain discourse genres than in others. For example, a recipe will probably not have much use for multiple scenes or scene changes. We would expect such reliance on locational scenes to be most prominent in stories, since these are the kinds of discourses in which the elaboration of a locationally well-defined world is the most useful. Even individual stories, however, may vary in the degree to which locational orientation is significant. For example, highly metaphysical stories in which there is a great deal of emphasis on the internal struggles of the participants, such as Djuna Barnes' Nightwood, do not, in general, rely heavily on locational orientation. However, in a story like Homer's Odyssey locational orientation is very useful and highly structured. In the Odyssey high level locational scenes are used to delimit the various episodes in the hero's journey. We also might expect individual authors to vary in 'style' and the degree of expertise they bring to bear on the telling of any given story. Therefore different authors might employ location as a discourse structuring device to varying degrees, all other
factors being equal. Finally, we might expect cultures to vary in the degree to which locational orientation is a significant aspect of their story-telling strategies. In Yagua it is particularly clear that locational orientation is of great importance in the telling of folkloric narratives (see also T. Payne 1984b).

6.2.2. Climax

An episode in a story typically consists of the building and subsequent release of tension. The point at which that tension is released I am calling the climax. Some episodes may not have climaxes; others may have multiple or multi-leveled climaxes. The notion of release of tension, though still somewhat impressionistic, is a step towards a concise characterization of what constitutes a climax. Hopefully, it will be clear from the following discussion and the appended texts how this notion is relevant in Yagua discourse.

6.3. Pajonal Campa

Pajonal Campa is a Pre-Andine Arawakan language spoken by about 2,000 people in the Gran Pajonal region of the south-central foothills of Perú. The following Pajonal Campa data come from Heitzman (1982). Abbreviations used are: SAR, subject arriving; SLV subject leaving; PER, perfective; NF, non-future; F, future; E, empty morph;
REG, regressive, A, prefix indicating A or $S_a$ participants; O, suffix indicating 0 or $S_o$ participants.

Campa transitive verbs code As and Os with prefixes and suffixes respectively, e.g.:

    $1pl:A$-see-SAR-PERF-NF-inan:O airplane
    'On arrival we saw the airplane.'

    b. $N$-aree-tz-i-mi.
    $1:A$-visit-E-NF-2:O
    'I visit you.'

Most intransitive verbs always occur with $S_a$ coding. Throughout the Campa language family, however, there are certain intransitive verbs that can occur either with $S_a$ or $S_o$ coding, for example the Pajonal Campa verb cam 'to die':

(136) a. $I$-cam-i.
    $3sg:A$-die-NF
    'He dies.' ($S_a$)

    b. Cam-aqu-i-0.
    die-PER-NF-3sg:O
    'He died.' ($S_o$)

A few verbs must occur with $S_o$ coding, e.g.:

(137) Ja-t-a-a-na.
    go-E-REG-NF-1:0
    'I'm going back.'

There is another stem, iyaa, meaning 'go' that always occurs with $S_a$ coding:
Heitzman lists four environments in which $S_o$ verbs occur in Pajonal Campa: 1) when the $S$ undergoes a change of state (as in example 136b), though it is not clear from the translations how 136a differs from 136b in this semantic respect, 2) to indicate a change of location, 3) to indicate the climax of a narrative, and 4) in greetings. The first environment is comparable to the semantics of $S_o$ verbs in classic stative-active languages. The other three environments, however, represent hitherto unrecognized factors. In the following discussion I will be primarily concerned with environments 2 and 3.

The following excerpt illustrates two $S_o$ verbs (italicized in both the Campa and English translations) signalling changes in location.

(139) a. A-poc-aqui-i irova-qui Oventeni-qui.
   ip1:A-come-PER-NF it-LOC (place name)-LOC

b. A-poqui-aan-ac-i irova-qui
   ip1:A-some:from-SLV-PER-NF it-LOC
   Tsiireentsishavo-qui.
   (place name)-LOC

c. A-poc-aqui-i a-cant-apo-ac-i
   ip1:A-come-PER-NF 1pl:A-do-SAR-PER-NF
   'shoc, shoc, shoc'.
   (sound words)

d. Yov-ac-ae Mencoryaa-qui.
   exit-PER-1pl:0 (place name)-LOC
e. Oerinc-apa-ac-ae, 
descend-SAR-PER-1pl:O 

f. A-ñ-aapa-aqu-i-ro avyoo o-jeequ-i. 
1pl:A-see-SAR-PER-NF-inan airplane inan-sit-NF 

a. We came to Obenteni.  b. We left from Tsireentsishavo and came.  
c. We came doing 'shoc shoc shoc'.  
d. We came out (of the jungle) at Mencoryaana. 
e. We descended.  f. We saw the airplane sitting. 

Example (139) is a very location-oriented excerpt in which a trajectory of movement is described. The locomotion verbs in a. and b. employ Sₐ coding, and simply summarize the entire trajectory. The Sₐ verb in c. describes an action that occurs within a certain locationally defined scene, namely the jungle path out of Tsireentsishavo. Then in d. the scene shifts, as the travellers exit the jungle and enter a populated area. In e. the scene shifts again, this time to the field on which the airplane is located. In each case Sₒ verbs are used where there is a distinct shift in scene.³

The following example illustrates several Sₒ verbs at the climax of a folkloric narrative. In this excerpt all Sₒ verbs imply transition of some kind, and all but one (140d) are formally marked either by the choice of verb stem or by the use of derivational suffixation as involving locomotion. This excerpt is from a story about the origin of the deer. Long ago the deer was a man who would go to the woods telling his wife that he was hunting for game. However, rather than hunt he would cut the flesh from his own body and smoke it. His body would regenerate
and he would take the smoked meat back to his family. Finally his wife becomes suspicious and follows him out to the jungle. She watches him cut the flesh from his body and smoke it. Then she comes out of hiding and says 'You just called it game; it was your flesh. I'll never eat your flesh again.' The story continues:

(140) a. Oo! Pey-an-ac-a-0 maniro. Tecatsi.  
    Oh! change:to-SLV-PER-NF-3sg:0 deer not:exist

b. Tecatsi-t-a-ni atziri.  
   not:exist-E-NF-F person

c. 0-ov-af-aaqu-i-ri.  
   3sg:A-cause-live-PER-NF-3sg:0

d. Caanit-an-aqu-i-O.  
   stay:away-SLV-PER-NF-3sg:0

e. Pey-ac-a-0 maniro.  
   change:to-PER-NF-3sg:0 deer

f. Shiy-an-ac-a-0.  
   run-SLV-PER-NF-3sg:0

g. Ja-t-aqu-i-O r-ov-a i-votoo-qui-te.  
   go-E-PER-NF-3sg:0 3sg:A-eat-NF 3sg:fig-fruit-poss

h. Oo! Tecatsi maavoeni pancotsi-qui-nta. Tecatsi.  
   oh no:exist all house-LOC-distant no:exist

i. Pey-an-ac-a-0 maavoeni.  
   change-SLV-PER-NF-3sg:0 all

j. Tecatsi i-vatha janta pancotsi-qui-nta  
   not:exist 3sg-flesh there house-LOC-distant

k. Pey-an-ac-a-0 maavoeni.  
   change-SLV-PER-NF-3sg:0 all

a. Oh! Upon leaving he changed into a deer. He doesn't exist.  
   b. He no longer is a person.  
   c. She caused him to live like that.  
   d. He left staying away.  
   e. He changed into a deer.  
   f. He ran away.  
   g. He went and ate figs.  
   h. Oh! None of those houses
exist anymore. None. i. Upon leaving he changed completely. j. There isn't any meat there in the house. k. Upon leaving he changed completely.

In clauses a, e, i and k, $S_0$ coding is used to reference the change in state from man to deer. $S_0$ coding in clauses d., f. and g. however, is not so easily explainable in these terms. The man in d., f. and g. is not a patient, and does not undergo a physical change in state in the usual sense. What examples 140d., f. and g. have in common with examples 139d. and e. is a change in location that culminates (brings closure to) a discourse unit. In example (140) that unit is the discourse itself, but in example (139) the relevant units are locational scenes.

6.4. $S_0$ coding in Yagua

Although Yagua and Pajonal Campa share many areal features, there is little evidence for a genetic relationship. There has never been a detailed comparative study of the lowland languages of Perú. Such a study may, in fact, reveal a distant relationship between Yagua and the Arawakan languages. Until then, however, we must consider similarities between these languages to be either areal features or features shared by sheer chance.

As illustrated briefly in chapter 2 (section 2.2.1) certain verbs in Yagua can occur with either $S_a$ or $S_0$ coding. Some further examples follow:
(141) a. Múuy siimyaasiñaadá.
múuy siiy-maasiy-naadá
there run-exit-3DL
'There they rush out.' (So)

b. Sa-siimyaasiy jį́ta su-úsiy
3SG-run:exit JJITA 3SG-from
'He rushes out away from him.' (Sa)

(142) a. Múuy supatéésiy
múuy supata-y-jásiy
there extract-DETRNS-PROX1
tájichinti:noti.
tá-jiy-siy-ntiy-ní
other-place-from-REP-3SG
'There he emerges from another place again.'
(KT91)

b. Sasupátamyantiy.
sa-supáta-y-maa-ntiy
3SG-extract-DETRNS-PERF-REP
'He emerged again.' (KT125)

In these examples there is no less control, volition and/or action ascribed to the subject in the a. examples than in the b. examples. Both 141a and 142a occur in texts where it is obviously the case that the participants coded with So coding are the active, volitional subjects of the verb. The crucial question, then, is what determines the choice between Sa and So coding for the verbs that admit that choice?

In this section I will isolate several characteristics of occurrences of intransitive verbs with So coding in a corpus of Yagua texts. Some of these characteristics are 100% generalizations, while others are only statistical tendencies. The first two characteristics are 100% generalizations in that

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counterexamples do not occur in the corpus of this study, and are extremely difficult for native speakers to produce, even in elicitation. There is some sense, therefore, in which these first two characteristics are 'grammaticized':

1: S₀ verbs always imply locomotion, either inherently (example 141a, 142a) or as a result of the addition of one of several derivational suffixes such as -nuva 'upon arrival on a new scene' (KT53).

2: S₀ subjects are always animates. This would be a curious characteristic of S₀ subjects were we tied to the notion that S₀ coding is strictly, or even typically, associated with patientivity, since animate entities are much less typical patients than are inanimate entities.

The third characteristic is also a 100% generalization, though I would not want to call it 'grammaticized' since it could easily be a feature of the particular corpus used for this study:

3: S₀ coding on verbs only occurs in folkloric narrative.

Table 33 illustrates the frequency counts of S₀ coding on verbs in almost 1800 clauses of texts from three genres:
# of Texts  # of Clauses  # of S₀
Procedural: 2 306 (240+66) 0
Pers experience narrative: 4 421 (100+75+96+150) 0
Folkloric narrative: 3 1066 (193+720+153) 27

Table 33: Frequency of verbs with S₀ coding in three discourse genres

The 27 occurrences of S₀ coding on verbs in this corpus constitute the data base for this study. Since none of these occur in procedural or personal experience texts, I will not be considering these genres. The three folkloric texts to be considered are the Kneebite Twins (KT), appendix 1, Little Baldy (described in Powlison, 1969 -- appendix 3 is an English translation of the first 336 clauses of this tale), and the first 153 clauses of the Non-identical Twins Cycle (appendix 4).

Given an environment, then, where S₀ coding is not precluded due to any of the above 100% generalizations (i.e. given a folkloric narrative, a locomotion verb and an animate subject) the question still remains: What principles influence or determine the choice of S₀ over Sₐ coding? In order to answer this question, I began with the preliminary hypothesis that Heitzman's environments for S₀ coding in Pajonal Campa were also relevant for Yagua. I refined the definitions of Heitzman's environments number 2 (change in location) and 3 (climax) to switch in

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locational scene and episodic climax, as outlined in section 6.2.

In order to be as neutral as possible to the presence or absense of $S_o$ coding in my postulation of scene switches and episodic climaxes, all occurrences of these environments were identified on the basis of the Spanish translations. After all such environments were identified, I went back to the Yagua and drew correlations between each environment and the occurrence of $S_o$ coding. The following subsections present the results of these correlations.

6.4.1. Episodic climax

Table 34 presents the counts of $S_a$ and $S_o$ coding for verbs of locomotion at points of episodic climax:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_a$</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>$S_o$</td>
<td>15</td>
<td>93.75%</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Table 34: Verbs of locomotion occurring at episodic climax

Table 34 indicates that of 16 examples of verbs of locomotion occurring at episodic climax, 15 received $S_o$ coding and 1 received $S_a$ coding. In these figures we observe a fourth characteristic of $S_o$ coding:

4: Verbs of locomotion occurring at episodic climax strongly tend to employ $S_o$ coding.
Some examples of this use of \( S_0 \) coding are KT67, 121 and 122 (see appendix 1 for the full contexts of these examples):

(143) Múuy ḱụụ-ñií, 'pụụ'.
    there fall-3SG SW
There he falls down, 'puun!' (KT67)

(144) Jásiy játyọ-riţi sa-nyi-ñií, 'tyen'.
    there hit-in:passing 3SG-at-3SG SW
There he hits in passing at him 'tyen!'. (KT121)

(145) Múuy ụụ-ñií, 'pụụ'.
    there fall:over-3SG SW
There he falls over 'puun!'. (KT122)

Many of the 15 examples of \( S_0 \) coding used at episodic climax involve the verbs ḱụụ 'fall down' (as from a high place) and ụụ 'fall over' (as from a standing to a prone position). In every case these verbs are used non-volitionally, i.e. the participant that falls does so as a result of some action applied by another agent. For example, in KT67 (example 143 above) a water boa falls from a tree as a result of being speared. However, not every example of \( S_0 \) coding occurring at episodic climax can be so characterized. In particular, KT121 describes a clearly volitional act. Thus I conclude that non-volitionality is a factor in the choice of \( S_0 \) coding for verbs of locomotion at episodic climax, though not a necessary one. Outside of situations of episodic climax and scene switch, locomotion verbs are virtually always
coded with $S_a$ coding, regardless of the question of volitionality (see figure 2, below).

6.4.2. Switch in locational scene

The initial investigation of the corpus revealed that the environment termed 'switch in locational scene' proved less significant in predicting the use of $S_o$ coding than did episodic climax. Many scene switches were accomplished with the verb jiya 'go'. This verb never occurs with $S_o$ coding in the corpus, and it so happens that it is extremely difficult even to elicit a sentence with jiya and $S_o$ coding. This fact is expressed as characteristic number 5 of $S_o$ coding on verbs:

$$\rightarrow 5: S_o \text{ coding is precluded for the verb } jiya \ 'go'. $$

Whenever any other verb of locomotion, such as siiy 'run', rabee 'to circle' or any verb suffixed with one of the locomotion suffixes such as nuva 'on arrival', accomplished a scene switch, $S_o$ coding was much more likely. So the definition of scene switch was modified to 'scene switch plus unexpected action', where unexpected action is construed to mean any locomotive action other than the unmarked, neutral, inexplicit action coded by the verb jiya. Table 35 summarizes the uses of $S_a$ and $S_o$ coding in this environment:
$S_a$: 2 15.4%

$S_o$: 11 84.6% (mutually exclusive of $S_o$
    
    coding used at 'climax', i.e.
    
    all are among the 12 $S_o$-coded
    
    verbs still unaccounted for.)

Total: 13

Table 35: Verbs of locomotion coding scene switch plus unexpected action

Table 35 indicates that of 13 verbs of locomotion
occuring at points of scene switch plus unexpected
action, 11 received $S_o$ coding and 2 received $S_a$ coding.
From these figures we can conclude the sixth
characteristic of $S_o$ verbs:

6: $S_o$ verbs tend to code scene switch plus unexpected
action.

Some examples of this use of $S_o$ coding are found in
KT24, 44 and 53:

(146) Mũũy jifūva-yası-ryiy.
        there arrive:late-PROX1-3PL
        There they arrive late. (KT24)

(147) Sii-jéé-nuvee-já-åsiy  Mokáyu sūta-jyari-ňaadaná.
        run-enter-ARR2-o'land-PROX1 Mokáyu shelter-into-3DL
        They force themselves into Mocayu's shelter on
        arrival. (KT44)

(148) Mũũy kiīncu-nuvee-já-åsi-ryiy.
        there light:fire-ARR2-o'land-PROX1-3PL
        There they light their fires upon arrival. (KT53)

In contrast to the examples of $S_o$ coding used with verbs
of locomotion at episodic climax, those occurring at scene switches always describe volitional acts. Eleven (11) of the 27 examples of $S_0$ coding on verbs found in my corpus are accounted for by this environment.

6.4.3. Summary of $S_a$ and $S_0$ coding with verbs of locomotion

In summary, 26 out of 27 (96.3%) instances of $S_0$ coding on verbs occur in the two environments termed climax and scene switch plus unexpected action. Verbs of motion that do not employ $S_0$ coding indicate either arrival on the current locational scene, movement within the current locational scene, or departure from the current scene. In none of these cases is there transition from one scene to another. One or two examples of each of these environments will be given here for illustrative purposes.

The following excerpt from the Twins Cycle (appendix 4) nicely illustrates the contrast between two verbs of locomotion employing $S_a$ coding and one verb of locomotion employing $S_0$ coding. The scene is the area around the ruins of the Twins' parents' house where the Twins are lying in wait for the spirits of their deceased parents to arrive. The Twins are hoping to surprise their parents in order to snatch a magic flute from them. The scene is established in TC111 (see appendix 4), and continues for
10 clauses in which the twins discuss how they are going to grab the flute. Then in clause 122, the spirit parents arrive, and the story continues as follows:

(149) a. Naadi-iti-ji ti-te-ntiy, 3DL-arrive-down JIITA-INTS-REP
They arrive descending again.  \((S_a)\) (TC122)

b. Naani-ipe-ni-ya-nu-ji
3DL-file:dance-DIST-ARR1
They dance around on arrival. \((S_a)\) (TC123)

c. 'Pu-um,' naada-niratuyu.
SW 3DL-dance
'Puun', They dance.  \((S_a)\) (TC124)

There he jumps up at them.  \((S_o)\) (TC125)

Sentence 149a illustrates a verb of locomotion employing \(S_a\) coding to describe the arrival of the spirit parents onto the already-established locational scene. 149b indicates locomotive action (file-dancing) on arrival, but no transition from one scene to another. 149c also indicates motion, but completely within the confines of the current scene (niratuyu refers to circle dancing, i.e. where the participants follow one another around in a circle). Finally, 149d is a verb of locomotion describing how one of the Twins jumps out of hiding and surprises the spirit parents. This is an example of \(S_o\) coding used at a point of episodic climax.

\(S_a\) coding on verbs of locomotion can also describe the departure of a participant from the current scene. In
the One-eyed Warriors text (appendix 3) scene XI is the beach on which the deer and the toucan's brother escape from the belly of the water boa. In OW332 the snake departs from the scene:

(150) Sa-jipta koody vaari naadi-iva-siy, 3SG-fall JIITA boa then 3DL-DAT-from The boa then fell back away from them. (OW332)

Following this clause the beach scene continues with the deer and the toucan's brother as topics, and the snake is never mentioned again.

Figure 2 schematically represents the distribution of $S_o$ and $S_a$ coding on verbs in relation to these two significant environments.

Figure 2: Summary of distribution of verbs employing $S_o$ coding
The larger circle in figure 2 represents the set of all intransitive locomotion verbs other than jìva 'go' in the corpus (n = 134). In other words, this circle represents all the verbs for which $S_o$ coding would be technically possible according to all the characteristics of $S_o$ coding listed in this section. The central circle represents those locomotion verbs which employ $S_o$ coding for their subjects. The ovals represent the sets of verbs occurring in the two environments termed change in locational scene and episodic climax.

Figure 2 shows that there are four examples that seem to contradict the initial hypotheses of the study. The horizontally barred area in the center represents one example of an $S_o$-coded verb outside of the two significant environments, the cross-hatched area represents one example of an $S_a$-coded verb of locomotion at episodic climax, and the vertical lined area represents two examples of $S_a$-coded verbs of locomotion describing scene switch plus unexpected action. In the following section I will examine these specific examples, and will offer some speculative explanations for their occurrence.

6.5. Exceptions to the general pattern

The one instance of $S_o$ coding on a verb of locomotion outside of the two major environments occurs in clause 113 of the Kneebite Twins story (appendix 1):
(151) 'Tyen, műýy răă-jîy.'  
SW  there fall:over-2SG  
'Tyen! There you fall over.' (KT113)

In this clause one of the Kneebite twins warns Mokáyu of possible upcoming events. The clause does not refer to an actual event in the episode in which it occurs, therefore it cannot technically be coding the climax of that episode. A possible explanation of this use of _S_o_ coding is that clause 113 is a prediction of the climax of the following episode, which occurs in clause 122. Clause 122 does employ _S_o_ coding, and I speculate that the speaker used _S_o_ coding in clause 113 to create stylistic parallelism between the warning and the actual event. Also, since KT113 is a quote, its discourse function may depend more on the structure of the quoted discourse than on that of the tale as a whole, i.e. the narrator may have structured a 'climax' into the discourse of the Twins by using _S_o_ coding within a direct quote.

Now we are left with three instances of _S_a_ coding where _S_o_ coding would be expected, one in a context of episodic climax and two others coding a change in locational scene. The one instance of a non- _S_o_ verb of locomotion occurring at episodic climax occurs in clause (286) of the One-eyed Warriors text (appendix 3). This non-use of _S_o_ coding is truly anomalous, and in fact in another version of the same story a different speaker uses _S_o_ coding at precisely this point. My only potentially
relevant observation is that this particular clause is marked in other ways, namely by the use of a the constrastive special clitic -niy, a marked ordering of a locational phrase before the verb, and by the enclitic -dáy (a discourse particle whose function is still under investigation):

(152) Múú-fïi y coodi-viímú sa-júú-dýéy.
there-NIY snake-inside 3SG-fall-DAY
'THERE inside the snake he fell.' (OW286)

I speculate that the speaker considered this clause to be sufficiently marked by these three features (contrastive clitic, preverbal locative, and -dáy) to indicate the climactic nature of the event.

Finally there are two instances of scene switch plus unexpected action coded by $S_a$ rather than $S_o$ verbs. These two instances are clauses 45 and 49 of the One-eyed Warriors excerpt. I suspect that the explanation for these apparent counterexamples lies in the use of rhetorical effect on the part of the story-teller. Scenes IIIA, IIIB, IIIC, IIIE and IIIF describe similar or identical actions, but A, B, and C are introduced with locomotion verbs with $S_a$ coding and E and F with $S_o$ coding. In fact, B and C are introduced with the same verb, rabee 'to circle', as E and F are. I contend that the use of $S_o$ coding to introduce the last two scenes in this series is because the speaker is progressivly
building up tension. Here we have five nearly identical scenes, the first introduced with an unmarked, unsurprising locomotion verb, and the next two with a slightly more unusual locomotion verb but with $S_a$ coding. Finally, the last two scenes are introduced with verbs of locomotion with $S_o$ coding, with success apparently being achieved in scene IIIF.

The examples which violate the hypotheses presented in this chapter suggest that there is still work to be done before a strictly predictive theory accounting for the use of $S_o$ and $S_a$ coding on verbs is attained. Furthermore, were this study to be replicated with another corpus, additional complications would undoubtedly become apparent, leading to still further lines of investigation. Even with the present corpus, other investigators may disagree with some of my judgements on instances of scene switches and climaxes. Nevertheless, the weight of the evidence is sufficient, in my opinion, to indicate that the environments termed 'switch in locational scene plus unexpected action' and 'episodic climax' do strongly favor $S_o$ coding on verbs, and that all other environments strongly disfavor $S_o$ coding. This observation is significant in that no previous study that I am aware of (with the exception of Heitzman, 1982) has ever suggested that $S_o$ coding may be conditioned by discourse-pragmatic factors, much less attempted to verify such a claim on the
basis of a comprehensive textual study. As in any scientific discipline, linguistic hypotheses must be malleable and disposable, always subject to refinement and replacement as additional data become available, and new theoretical models are developed.

6.6. Towards an explanation

In the preceding sections it has been shown that $S_0$ coding on verbs in Yagua folkloric narratives occurs primarily in two discourse environments, 1) at points of episodic climax, and 2) at locational scene changes accompanied by unexpected action. Furthermore, we have seen that $S_0$ verbs occurring at episodic climax tend to code non-volitional actions, whereas those occurring at locational scene changes always (in my corpus) code volitional actions. In this section I pose the question 'why should these particular discourse environments favor $S_0$ coding so strongly?' I will approach this question from three directions, 1) semantics, drawing from the work of Keenan (1984), 2) cognition, DeLancey (1982) and 3) the use of anaphora in discourse, Clancy (1980), Givón (1983a,c,d), and B. Fox (1984). I hope to show how these three interrelated pressures conspire to favor the choice of $S_0$ coding on verbs in Yagua.
6.6.1. Semantics -- change in state

As mentioned in section 6.1, Keenan (1984), provides a semantic framework that may help us understand the use of \( S_0 \) coding in Yagua discourse. In this work Keenan investigates the semantic properties shared by intransitive subjects and transitive objects in search of possible motivations for the morphosyntactic category 'absolutive' in those languages that exhibit such a category. In his categorization of semantic properties of absolutes, Keenan lumps three properties together under the heading of 'change in existence state' (Keenan 1984:213). These three properties are 1) existence dependence, 2) patientivity, and 3) change in location.

Existence dependence is the property exhibited by a participant whose existence depends on the action described in the predicate. If a predicate describes the bringing into existence of an entity, that entity will be either an intransitive subject or transitive object, e.g. 'a crowd gathered', 'a fire started' (intransitive) and 'John built a house' (transitive). This is a property that is very difficult, if not impossible, to ascribe to transitive subjects. Patientivity, in Keenan's terms, is the property of undergoing a change in state, typically physical state, e.g. 'the dog died', 'the house collapsed' (intransitive), and 'John smashed the car' (transitive). Again, this is a property which is highly atypical for
transitive subjects. Finally, Keenan (1984:207) asserts the following with regard to predicates of locomotion:

Absolutive arguments are always among those whose path of movement is specified by source and goal locatives.

This statement captures the fact that in transitive sentences like 'John kicked the ball into the room' it is the object that moves into the room, whereas in intransitive sentences like 'John ran into the room' it is the subject that moves into the room. It is very difficult for a goal or source locative to describe a path of movement for a transitive subject, unless the object also follows the same path, as in 'John chased Mary into the room.' Thus participants whose path of movement is specified by a goal or source locative are parallel to patients in that both are typically restricted to absolutives.

There is a possible stronger hypothesis that, if true, would seem to make the case that participants that undergo a change in location are semantically analogous to patients even stronger. This hypothesis is the following:

In predicates describing locomotive actions, absolutive arguments are always among those that change location.

Here the specification that a source or goal locative argument need be expressed has been eliminated. The hypothesis simply states that for transitive locomotion
predicates the object will change location, and for intransitive locomotion predicates, the subject will change location. This state of affairs would render participants that undergo a change in location parallel to patients in that both would be restricted to the category absolutive. The problem with this hypothesis is that it simply is not true. There are many examples of transitive locomotion predicates where the subject changes location without a corresponding movement ascribed to the object, for example:

(153) a. John passed/left/approached Mary/Mt. Rushmore.
  b. Mary escaped prison/the wrath of God/the fire.
  c. John walked the plank/the streets of NYC/a mile.

Hence of the general class of participants that change location (hereafter 'mobile participants') it is only participants that move along a path specified by a source or goal locative that are among those that belong to the category of absolutive. Insofar as semantic properties shared by absolutive arguments are likely to induce a morphosyntactic category of absolutive, we can make the further claim that only those mobile participants whose path of movement is specified by a source or goal locative are likely to induce a morphosyntactic category of absolutive. In terms of intransitive subjects, this means that only those mobile intransitive subjects whose path of motion is specified by a source or goal locative are
likely to be identified morphosyntactically with transitive objects.

So what is the semantic difference between participants that move in general, and those that move along a path specified by a source or goal locative such that the latter would be restricted to absolutes, and the former not? I contend that the difference is that when a source or a goal locative is expressed, a change in scene is necessarily implied. For example, when we say 'John kicked the ball into the room' there are two locations specified, the outside and the inside of the room. Here the ball necessarily undergoes a change in locational scene. However, when we say 'John approached Mt. Rushmore' the entire action can be perceived as taking place within one locationally defined scene. 'John' in this example, changes location, but does not move out of one scene into another. The examples of mobile participants that do not undergo change in scene need not be restricted to transitive subjects. The same is true for 'ball' in 'John kicked the ball'. It might be said that in this sentence the ball changes location, but not that it moves from one scene to another. Similarly, 'John ran' is not specified for any scene changes, whereas 'John ran out of the kitchen' is.
The above observations lead to the conclusion that locational scenes are semantically analogous to physical states. A switch in scene is analogous to a change in state, hence when a participant moves from one scene to another that participant undergoes something very similar to what happens to a patient when it changes physical state. Similarly, when something is brought into existence the act of coming into existence can be seen as semantically analogous to an act of moving from one scene to another. This fact would not hold for simple changes in location, i.e. it is not so reasonable to imagine that the change in location referenced in a sentence like 'the ball was rolling' is analogous to a change in physical state, whereas for 'the ball rolled into the kitchen' such an analogy is more reasonable. This conclusion is also consistent with the intuitions expressed in section 6.1 concerning English intransitive verbs of locomotion whose past participles can modify their subjects. In that section I contend that the difference between 'escape' ('an escaped prisoner') and 'walk' ('a walked man') is that the action described by escape necessarily implies transition from one 'scene' (e.g. a prison) and another. In this respect escape is semantically analogous to grow ('a grown woman'), in that grow implies transition from one physical state (childhood) to another. These facts suggest a reasonable explanation for why some verbs of
locomotion in Yagua receive $S_o$ coding and others do not. It is not surprising, given the line of reasoning above, that it is exactly where there is a specific change in scene that $S_o$ coding for subjects of verbs of locomotion is highly favored.

However satisfying the above explanation may be, it still does not account for all the data. First of all there are still the cases of $S_o$ coding at points of episodic climax. Furthermore, there are cases of changes in scene coded by intransitive locomotion predicates that do not exhibit $S_o$ coding for their subjects. These are principally those scene changes coded with the verb jiya 'go'. In the following sub-sections I will propose some additional forces that impinge on the use of $S_o$ coding in discourse and which provide further motivations for the observed patterning.

6.6.2. Cognition -- endpoint orientation

DeLancey (1982) provides a very interesting explanation for the tendency in some languages for ergative marking to occur in perfective aspect, and/or past tense, even though non-ergative marking occurs in other aspects or and/or tenses (Comrie 1978, Dixon 1979, Harris 1981, T. Payne 1982b). The essence of DeLancey's hypothesis is that perfective aspect represents a view of an action as complete and bounded, and therefore places
emphasis on the enduring effect of the action, rather than on the initiation or internal structure of that action. For transitive clauses, this means that perfective aspect is oriented more towards the participant with whom the action terminates than towards the participant with whom the action begins. In the canonical transitive event (i.e. an event involving both agent and patient roles) the enduring effects of the event are more likely to be relevant to the patient rather than the agent. This orientation of perfective aspect towards the temporal endpoint of an action is termed 'terminal viewpoint' (DeLancey 1982:172). Insofar as ergative marking is 'patient-oriented'\(^9\) and patients are typically the endpoints of transitive actions, this notion of terminal viewpoint explains in cognitive terms the use of ergative marking only in perfective aspect.

Though the specific phenomenon DeLancey deals with is viewpoint in relation to the temporal orientation of clauses (terminal and non-terminal viewpoints are taken to be temporal notions), he asserts that this tendency is rooted in the locational notions of source and goal. That is, predicates of locomotion typically are lexicalized according to source and goal viewpoint (e.g. the difference between the members of the pairs 'come' and 'go', and 'bring' and 'take' in English). This locational
notion is carried over by cognitive analogy to the temporal notions of terminal and non-terminal viewpoint.

This notion of source versus goal viewpoint explains in a very satisfying way why some locational scene changes are coded with $S_o$ coding and others are not. Clauses containing the verb jiyā 'go' are, in general, source-oriented in the sense that they describe a locomotive event from the viewpoint of the current locational scene. There is transition, but the emphasis is on the act of leaving the old scene, rather than on the endpoint of that transition, i.e. the new scene. On the other hand, in clauses such as KT53 'they light their fires on arrival' the orientation is clearly on the endpoint of the transition. Every example of $S_o$ coding on verbs occurring at locational scene changes can be understood as an instance of 'endpoint' or goal orientation, as opposed to 'starting point' or source orientation. Insofar as direct objects of transitive events are typically endpoints of the carrying over of some action (Hopper and Thompson, 1980), it is understandable why subjects of intransitive verbs of locomotion that are endpoint-oriented would be coded morphosyntactically like transitive objects.
6.6.3. Anaphora in discourse -- discontinuity

Time and location are important factors in establishing the continuity (or cohesion) of a text. Events that take place in the same location and/or the same time frame have a natural cohesion that renders them all available to be mentioned in any text that concerns any one of them. Similarly, change in location or time frame is an important way of breaking up the continuity of a text when necessary. That is to say, change in location, as well as change in time, is often used as a strategy for structuring texts into various sub-units, such as episodes (see, e.g. Grimes, 1975:219, Givón, 1983d:192).

Many folkloric narratives around the world, but in particular those of the lowland cultures of Perú, exhibit a high degree of dependence on location for the delineation of episode boundaries (T. Payne, 1984b). Such narratives typically describe the travels of a character or group of characters and their adventures at various stages of a journey. Personal experience narratives also often take this format, e.g. in lowland Perú when one arrives in a village or home it is common courtesy for a visitor to recount the story of his journey. The Kneebite Twins story is a folkloric text of this style while example (139) is from a Pajonal Campa personal experience narrative. In this style of discourse the episodes typically coincide with locational scenes. Since
locational scenes are important high level discourse structuring units, switch in scene entails a kind of thematic discontinuity (Givón 1983c:7), i.e. a 'breaking up' of the text into thematic units, similar to what paragraph breaks do in written discourse.

Clancy (1980), Scancarelli (1984), and Fox (1984) have independently shown that devices used primarily for highly discontinuous participants (participant discontinuity) are also used to indicate major boundaries in the higher level structures of texts (thematic discontinuity). For example Clancy shows that in English, full noun phrases as opposed to pronouns are more likely to occur when there is a significant thematic boundary. Fox (1984) makes the same observation for logical boundaries as defined in the story grammar framework of Rumelhart (1975). Full nouns, of course, are commonly used to refer to participants whose reference is not presupposed, whereas pronouns are normally used when the reference is presupposed. However, English speakers and writers will use full noun phrases to refer to presupposed participants in order to indicate higher level thematic boundaries. Similar observations are made for Yagua in chapter 5, section 5.2.5, though for Yagua, thematic boundaries do not seem to be as significant a factor in inducing the use of noun phrases as they apparently are in English and in Japanese (Clancy, 1980). In Yagua only
four out of 117 examples of unusually strong coding devices are explainable in terms of thematic boundaries. The general observation, however, is incontrovertible -- speakers use coding devices normally associated with participant discontinuity to indicate thematic discontinuity as well.

In Yagua, as presumably in all languages, direct objects are typically more discontinuous, i.e. less topical, less presupposed, than are subjects. The counts for Referential Distance in chapter four validate this claim for Yagua in that 0 participants consistently exhibit higher RD figures than do A or Sₐ participants. Table 36 summarizes the RD figures for the major coding devices by semantico-syntactic role:

<table>
<thead>
<tr>
<th></th>
<th>PNP</th>
<th>VC/E+NP</th>
<th>Post-NP</th>
<th>VC/E</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.5</td>
<td>8.24</td>
<td>----</td>
<td>1.52</td>
<td>2.37</td>
</tr>
<tr>
<td>Sₐ</td>
<td>12.36</td>
<td>7.72</td>
<td>----</td>
<td>1.77</td>
<td>3.31</td>
</tr>
<tr>
<td>A/Sₐ</td>
<td>11.07</td>
<td>7.95</td>
<td>----</td>
<td>1.68</td>
<td>2.98</td>
</tr>
<tr>
<td>0</td>
<td>15.78</td>
<td>11.29</td>
<td>12.5</td>
<td>2.38</td>
<td>7.11</td>
</tr>
</tbody>
</table>

Table 36: Summary of Referential Distance figures by semantico-syntactic role

Table 36 shows that 0 participants exhibit a higher RD than either A or Sₐ participants for every coding device. The aggregate RD for 0 participants is 7.11, which is more than twice the aggregate RD for subjects (A and Sₐ), 2.98. These facts show that the 0 category in Yagua is typically
reserved for more discontinuous, or less topical participants, than is the subject category.

Table 36 shows that O is a category normally associated with discontinuous participants (as compared with the subject category). Subjects of S\textsubscript{O} verbs, however, are, like other subjects, highly continuous. In the corpus used for the RD figures in table 36 there were 15 examples of S\textsubscript{O} verbs. The subjects of these verbs have an aggregate mean RD of only 1.67. Hence, the morphosyntactic identification of O and S\textsubscript{O} participants cannot be due to participant discontinuity. I hypothesize that one factor in the use of S\textsubscript{O} coding to indicate locational scene changes is a generalization of the morphosyntactic category 'object', normally associated with participant discontinuity, to indicate thematic discontinuity as well. This is exactly analogous to the use of full nouns to refer to highly continuous participants at episode boundaries in English.\textsuperscript{10}

6.6.4. Climax as discontinuity

All of the above discussion centers on explaining the use of S\textsubscript{O} coding on verbs at points of locational scene change. In this section I will offer a tentative functionally-based explanation for the other major environment for S\textsubscript{O} coding on verbs -- episodic climax. I will begin by presenting some evidence from English that
formal characteristics of direct objects are associated with subjects of certain intransitive verbs in situations of 'counter expectation' (Gary, 1978) or 'surprise'. Then I will show that this additional notion, along with the notion of change in state, provides a reasonable explanation for the use of $S_o$ coding on verbs in situations of episodic climax.

There is a class of constructions in English where intransitive subjects are treated like direct objects in that they occur post-verbally:

(154) a. There appeared on the horizon a ship.
    b. Here comes my bus.

These two sentences actually represent two distinct construction types, for the following reason. 154a is most natural with an indefinite subject and the deictic 'there', whereas 154b may have a definite subject and may involve any locational expression, e.g. 'around the corner', 'lined up against the wall', etc. Functionally, the construction type represented by 154a is commonly used to introduce participants into a discourse, whereas sentences like 154b may have subjects which are highly presupposed and tend to occur in situations of 'counter expectation' (Gary, 1978). Post-verbal position in English is a strong morphosyntactic correlate of the semantico-syntactic role $O$. As observed in Givón (1979) $O$ is the favored position for introducing participants into
a discourse in English (as opposed to S or A). This may explain the use of post-verbal position for the subjects of presentative constructions such as 154a. However, what about 154b? I speculate that these constructions function in a similar way to those $S_o$ verbs used at episodic climax in Yagua. First of all, these constructions are restricted to predicates of locomotion or location e.g.:

(155) a. Into the bathroom went John.
    b. *In the bathroom coughed John.

(156) a. Under the bed scurried the cat.
    b. *Under the bed died the cat.

(157) a. Up jumped the rabbit.
    b. *Up locked the rabbit.

(158) a. On the wall hung the portrait of Mao.
    b. *On the wall burned the portrait of Mao. 11

(159) a. Standing next to me was the president.
    b. *Standing next to me spoke the president.

Secondly, the function of this construction type to indicate 'counter expectation' (Gary, 1978) is a possible analogy to the environment I have characterized as 'climax' in Yagua. Thus we have some intriguing evidence from English that morphosyntax associated with the semantico-syntactic role $O$, may be assigned to participants in other roles when those participants occur in the discourse pragmatic environments of counter-expectation or climax.
Climax, as well as change in scene, is an instance of discontinuity in that it signals the end of a progressive build up of tension, and the beginning of a subsequent release of that tension. This notion of release of tension is an important concept in aesthetics, often associated with 'closure' (John Du Bois, p.c.). There have been no studies that I am aware of showing that coding devices normally associated with discontinuous participants are used at points of episodic climax, but I would not at all be surprised if this were in fact the case. Furthermore, the subjects of So verbs occurring at episodic climax exhibit the characteristic of 'change in state' just like other So subjects do. At points of climax, however, that change in state is not nearly so dependent on the notion of location. That is, there is no necessary transition from one scene to the next. A sentence like 'there he falls' (KT67 and many others) is parallel to a sentence like 'we approached Mt. Rushmore' in that both can be perceived as taking place within one locational scene. There is no change of scene specified. However, there is the component of patientivity. Subjects of So verbs occurring at episodic climax are overwhelmingly non-volitional and undergo some kind of change in physical state. This is the opposite of the case for the subjects of So verbs occurring at locational scene changes. Hence, it seems that both kinds of So subjects undergo a 'change
in state', but the difference is that for those that occur at episodic climax that state is physical, whereas for those that occur at locational scene changes that state is locational.

6.7. Summary

In this chapter we have seen that $S_0$ coding on verbs in Pajonal Campa and Yagua is not explainable strictly in terms of semantic role. Subjects of intransitive verbs of locomotion may be coded like transitive objects even though those subjects clearly are semantically 'active' and volitional controllers of the event. A quantitative study of Yagua folkloric texts reveals that $S_0$ coding for subjects of verbs of locomotion is highly favored in the two environments termed 'switch in locational scene' and 'episodic climax'.

I propose that this distribution of $S_0$ coding in Yagua folkloric narrative is explained in terms of the following three interrelated semantic, cognitive and discourse/pragmatic factors:

1. Change in state (either locational or physical)
2. Goal-orientation
3. Discontinuity

These factors are all naturally cohesive, to the extent
that it may be impossible to tease these them apart into distinct principles. For example, a participant that changes state is most typically the endpoint of an action, hence factors 1 and 2 naturally go together. Furthermore, insofar as the unmarked way of viewing an event is from the point of view of its inception, endpoint orientation is marked, unusual or surprising. Hence, according to Givón's (1983c) iconicity principle of human communication, in those cases where a language avails itself of a viewpoint distinction to signal discourse continuity or discontinuity, endpoint orientation would be predicted to signal discontinuity rather than continuity.

In most 'stative-active' languages, the single participant of most \textit{S\textsubscript{O}} intransitive verbs is treated morphosyntactically like a transitive object because of a commonality of semantic role, namely \textit{O} and \textit{S\textsubscript{O}} participants are both typically patients. According to the hypothesis advanced in this chapter, the single participant of an \textit{S\textsubscript{O}} verb in Yagua is treated morphosyntactically like a transitive object because of the commonalities of change in state, goal-orientation, and discontinuity. The fact that I have isolated three factors may only be a result of my having drawn from three distinct areas of investigation, semantics (Keenan, 1984), cognition (DeLancey, 1982), and discourse/pragmatics (Clancy, 1980; Fox, 1984; Givón, 1983c). There is still much to be
learned concerning the use of coding devices in general, and the use of $S_0$ coding on verbs in Yagua in particular. This chapter constitutes one small step towards a full characterization of the functional principles involved in participant coding choices.
1. The term 'stative predicate' is used here to refer to single participant predicates in which the participant exerts no volition or control, and typically undergoes a change in state. Some examples of verbs in English that typically head stative predicates are 'to grow', 'to die', 'to be born', 'to explode', 'to wither', 'to melt', etc. The term 'stative/active language' (from Klimov's 'jazyka aktivnogo stroja') refers to those languages which code subjects of at least some stative predicates like objects of transitive predicates in terms of surface morphosyntax.

2. Other examples of active intransitive verbs of locomotion whose past participles are used as modifiers include 'departed guests' and perhaps 'deplaned/boarded/embarked/disenbarked passengers', 'evacuated homeowners', 'withdrawn troops', etc. though some of these may also be taken as transitive. There is a set of similar expressions involving compound verbal past participles formed with 'well', such as 'a well-read scholar', 'a well-disposed aunt', 'a well-mannered child', 'a well-intentioned relative,' etc. I judge these to be distinct from the expressions cited in this section involving locomotion verbs in that the expressions with
well- are even more restricted in meaning than the others, and are not formed from verbs that can occur outside of such expressions, i.e. there are no verbs such as 'to well-read', 'to well-dispose', 'to well-manner', 'to well-intention,' etc. Finally, there is at least one such expression, 'a learned man/woman', that is not based on a locomotion verb. My feeling is that this expression is distinct from those involving locomotion verbs in a couple of respects. First, 'learn' is not as clearly active as are 'escape', 'return' (as in 'returned veteran'), 'rise' (as in 'risen savior'), etc. However, even granting that it is an active verb, the usual pronunciation of 'learned' in such expressions is not the same as the past participle of the verb 'learn'. This leads me to suspect that it is a much more frozen expression than the others, and hence perhaps should not be considered a true counterexample.

3. It also might be observed that the clauses which employ $S_o$ coding in this excerpt are 'telic', that is they describe 'finishable' events, or events with well-defined endpoints (Comrie 1978:44). This factor may contribute to the explanation of the use of $S_o$ coding in these languages since, as has often been observed, perfective aspect and/or past tense often correlates with morphosyntactic identification of transitive objects and intransitive subjects (see, e.g. Dixon, 1979:93). This correlation
between 'finished' acts and ergative agreement patterns is explained nicely by DeLancey (1982) in terms of 'viewpoint'. However, in this particular case I am not sure that the aspectual notion of telicity will correctly delimit only those clauses which take \( S_o \) coding, since, it seems to me, clause a. 'we came to Obenteni' is equally telic and yet does not take \( S_o \) coding. What clause a. does not share with the \( S_o \) clauses in this excerpt is a distinct switch from one scene to another in a narrative sequence of events.

4. There is one example in the corpus of jiyå with no subject prefix, but with a post-posed full noun phrase coding the subject:

(160) Jiya váriy rá-jaq-miy tiìtu-ñu.
go then INAN-person-PL transform-NOM:ANIM 'Then its people go transformed.' (or 'Then go its transformed people.') (TC452)

I have not considered this clause to be an example of \( S_o \) coding because there is no enclitic referring to the 0. This fact renders the clause ambiguous as to whether this is an \( S_o \) clause exhibiting the post-predicate NP device for the expression of the subject, or whether it is an \( S_a \) clause with zero reference to the subject, and a post-posed recapitulating NP. In the absense of intonational data there is no way of distinguishing between these two possibilities. However, this is the
only example in the corpus that presents this problem, and even if it were considered to be an example of $S_0$ coding, it has a nice motivation in terms of the explanations offered in section 6.6. Specifically, this clause clearly focuses on the enduring state of the subject, i.e. the transformed nature of the people. Even though the verb jiyá does not itself express 'goal-oriented' transition, the modifying phrase tijtufu 'transformed ones' indicates that this is an event viewed from the perspective of an enduring state.

5. The claim that $S_0$ coding is possible for all verbs within the large circle of figure 2 is made only on the basis of the 6 characteristics of $S_0$ coding listed in section 6.4. In other words, there is no positive reason to exclude the possibility of $S_0$ coding for these verbs. However, not all of the lexical verbs that occur in the blank area of figure 2 have actually been attested with $S_0$ coding in other environments. Hence, it may very well be the case that some of them, like jiyá, may not employ $S_0$ coding, though in the absence of a native speaker I have no way of checking each verb for its lexical coding possibilities. Nevertheless, it is clear that the difference between verbs that code their subjects as $S_0$ and those that code their subjects as $S_0^a$ is not lexically
determined -- many lexical verbs in the blank area also occur with $S_o$ coding.

6. Keenan has noted that absolutes have certain properties, and has provided a nice list of such properties. We might attempt to push the chain of explanation one step further by asking the question 'why should absolutes have the particular properties noted by Keenan?' In answering this question, we are moving into a realm of analysis termed 'ecology of grammar', by Du Bois (1981). In other words, we are no longer simply explaining particular facts about particular languages, in terms of what seem to be universal facts about Language, but we are attempting to explain why Language has evolved the characteristics it has. The characteristics of absolutes falling under the heading of 'change in existence state' in Keenan's work may in fact be a result of the evolution of absolute as the relational category within which participants are typically brought onto the discourse stage (Du Bois, 1981). Space limitations prohibit a full examination of the consequences of this view here. As indicated in the concluding remarks to this chapter, further research may be able to characterize the unity underlying the three approaches taken towards an explanation of the use of $S_o$ coding in Yagua. Such
research must inevitably approach the question from the point of view of the ecology of grammar.

7. This is not an uncontroversial point, but it is an underlying assumption of Keenan's work. I will not take the time to defend or refute this view here.

8. Apparent counterexamples to this claim such as 'John approached Mt. Rushmore from the North' are on the order of exceptions that prove the rule. That is, 'from the North' in such a sentence is not a source in the same sense as 'out of the kitchen' is. The difference is precisely that 'North' does not describe a locational scene, whereas 'kitchen' does. The phrase 'from the North' specifies the direction from which John is approaching Mt. Rushmore. It does not describe a specific locational scene, 'the North', out of which John passes. Even a more specific phrase like 'Rapid City' in a sentence like 'John approached Mt. Rushmore from Rapid City' seems to specify direction, rather than a change in scene.

9. Ergative constructions are commonly thought of as 'patient-oriented' quite apart from their tendency to occur only in perfective aspect. Traditional accounts of ergative case marking systems nearly universally compare
ergative sentences to Indo-European passives (e.g. Hammerrich, 1976). More modern accounts accept unquestioningly the notion that ergative constructions can develop diachronically from earlier passive constructions. These analyses are based on the fact that direct objects in ergative sentences universally have some characteristics typically associated with subjects. In other words, objects enjoy some morphosyntactic 'privileges' associated with subjects in non-ergative languages (see e.g. T. Payne, 1982, on Eskimo and Tagalog).

10. In the absence of adequate data, I speculate that this principle may also explain the use of $S_o$ verbs in greetings, as mentioned by Heitzman for Pajonal Campa. Greetings and leave-takings typically occur at boundaries of conversations. Since conversations are discourses, we can imagine that the same sorts of devices might occur at conversation boundaries as occur at other discourse boundaries. In Yagua, typical greetings and leave-takings do not involve $S_o$ verbs, but they do involve verbs of locomotion, e.g.:

(161) A: Yi-itji-maa-viy? 'Have you arrived?'
2sg-arrive-perf-question

    B: Jóono. Rí-itji-máá. 'Yes. I've arrived.'
    yes 1sg-arrive-PER
11. It is true that a construction such as 156a can occur with an indefinite NP. But such constructions are not typically used to indicate counter-expectation (Gary 1978). They have more in common functionally with presentatives such as 156a. Since the Yagua $S_o$ verbs in question are not presentatives, i.e. they never introduce participants into the discourse, I will claim only that they are roughly analogous to sentences such as 156a, and not to the corresponding presentative constructions.
7. Chapter 7: Pronouns in Discourse

In this chapter I will explore the functions of pre-predicate pronouns in Yagua. In particular, I will be concerned with the functional factors which determine the choice between 
PPRO and the other 'short range' participant coding devices (see chapter 4, section 4.6). The mode of argumentation in this chapter differs significantly from that employed in the previous chapter. In chapter 6 I began with features of the discourse environment (change of scene, and episodic climax) identified independently of the linguistic structure under consideration, namely So coding on verbs. We saw that when certain configurations of these features are present, So coding on verbs is statistically highly probable, and when those configurations are absent, So coding is highly improbable. Thus So coding is predicted to occur in certain discourse contexts, and to not occur in others.

In the present chapter, however, it will not be so easy to independently define and identify the discourse feature that I will claim induces the use of the formal structure under consideration, in this case the PPRO coding device. My initial hypothesis is that the discourse feature that induces the PPRO device is high topicality combined with contrastiveness, as defined by Chafe (1976). Although topicality is a feature that can now be
identified and measured independently of formal structures (see chapter 4), it is as yet impossible to so identify all instances of contrastiveness. Apart from the use of certain unusual coding devices, such as PPRO, there is as yet no consistent way of determining whether or not a particular participant mention is contrastive.

This is not to say that the use of the PPRO device is inexplicable. In particular, there are two directions from which I will approach this problem. First, I will compare the various short range devices in terms of the indices of Persistence and Ambiguity. Second, I will examine specific examples of the PPRO device in light of Chafe's (1976) definition of contrastiveness. These approaches yield several interesting findings. First, this study shows that the index of Ambiguity for the PPRO device is very high for all semantico-syntactic roles. This fact is consistent with the hypothesis that the PPRO device is contrastive, though it does not in itself prove the hypothesis. Studies of other languages show similarly high Ambiguity figures for contrastive devices. Second, we will see that the index of Persistence for the PPRO device patterns unequally between the various semantico-syntactic roles. Specifically, O and S_o participants coded with the PPRO device are more persistent than are A and S_a participants coded with the same device. This is in spite of the fact that O and S_o participants are in general less persistent.
than the other roles. This fact leads to the hypothesis that the function of the PPRO device for 0 and $S_0$ participants is to indicate high 'deployability' (Jaggar, 1985), as well as contrastiveness. Finally, we will see that Chafe's definition of contrastiveness does not precisely characterize the environment for the PPRO device in Yagua, for subjects or objects. It has been recognized that there are several different kinds of contrastiveness (see, e.g., the discussion in Dik, 1978). Examination of specific examples leads to the conclusion that the kind of contrastiveness coded by the PPRO device is insightfully described as 'selective contrast'.

7.1. The data base

The 'pre-predicate pronoun' (PPRO) device is described and illustrated in sections 2.1.5, and 2.2.6 of chapter 2. Oblique participants and possessors are never coded with pronouns in the corpus studied, therefore the only semantico-syntactic roles to be considered are $A$, $S_a$, $0$ and $S_0$. Non-demonstrative free pronouns referring to inanmites do not unequivocally exist in Yagua, and therefore all participants considered in this chapter are animates. The data base for this study is the same as that for chapter 4 (see section 4.4) with the addition of 19 examples selected at random from the Powlison concordance (described in chapter 1, section 1.3) in order to obtain a
reasonably large corpus of examples. In table 36 the numbers of occurrences of the PPRO device considered in this study are displayed according to semantico-syntactic role.

<table>
<thead>
<tr>
<th>A</th>
<th>S_a</th>
<th>O</th>
<th>S_o (pred nom)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 36: Occurrences of the PPRO device by semantico-syntactic role

7.2. Factors of topic-continuity

In the study of topic continuity in chapter 4 it is noted that PPRO is a 'short-range' device in that it is used to code participants that have been mentioned relatively recently in the discourse. Table 37 illustrates the Referential Distance figures for the various short-range coding devices:

<table>
<thead>
<tr>
<th>A</th>
<th>S_a</th>
<th>O</th>
<th>S_o</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPRO</td>
<td>1.6</td>
<td>1</td>
<td>--</td>
<td>1.2 (A/S_a)</td>
</tr>
<tr>
<td>PPRO</td>
<td>--</td>
<td>--</td>
<td>1.29</td>
<td>1.25 (O/S_o)</td>
</tr>
<tr>
<td>VC</td>
<td>1.52</td>
<td>1.77</td>
<td>--</td>
<td>1.68</td>
</tr>
<tr>
<td>E</td>
<td>--</td>
<td>--</td>
<td>2.38</td>
<td>2.18</td>
</tr>
</tbody>
</table>

Table 37: Referential distance of PPRO, VC and E devices

The aggregate Referential Distance for the PPRO device is 1.22. This means that the mean distance between a pre-predicate pronoun and the most recent previous mention of the participant coded by that pronoun is 1.22 clauses. Table 37 shows that the Referential Distances for
both VC and E devices are somewhat higher, 1.68 and 2.18 clauses respectively. At present there is no way of determining whether the difference between the RD figures for PPRO and for the other short range devices is significant. Nevertheless, these figures indicate that the PPRO device codes participants which are at least as topical, in terms of referential distance, as those coded by the other short range devices, if not more so. This fact appears to violate the 'iconicity principle of topic continuity' (Givón 1983b:18) described in chapter 4, section 4.1. Since VC and E are 'smaller' than PPRO, they should code more predictable, or topical, participants. Clearly there are other factors at work in determining the choice of PPRO over the other short range devices.

The first place we might look for other explanations for the use of the PPRO device is the other indices of topic-continuity. Table 38 lists the ambiguity indices (chapter 4, section 4.2) for PPRO.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>S_a</th>
<th>O</th>
<th>S_o</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPRO</td>
<td>2</td>
<td>1.9</td>
<td>--</td>
<td>--</td>
<td>1.93</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.86</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Table 38: Ambiguity indices for the PPRO device

Table 38 reveals that for all roles the Ambiguity index for the PPRO device is high (aggregate = 1.82), though for A and S_a participants this index is especially high (1.93), almost reaching the maximum of 2. This means
that the PPRO device is commonly used in situations where there are two or more possible referents on stage. Since ambiguity indices were calculated only for the PPRO device (for reasons discussed in chapter 4, section 4.2), we cannot directly compare the use of PPRO with the other devices in terms of ambiguity. However, studies of other languages, such as Mandarin Chinese (Sun and Givón, 1985), and Biblical Hebrew (A. Fox, 1983) indicate that low Referential Distance combined with high Ambiguity is a characteristic of 'contrastive' devices.\(^1\) In these studies 'non-contrastive' devices exhibit ambiguity indices typically between 1.00 and 1.2, whereas 'contrastive' devices exhibit ambiguity indices of 1.4 to 2.00. Hence the combination of low Referential Distance combined with High Ambiguity points to a disambiguating or 'contrastive' function of the PPRO device.\(^2\)

Table 39 compares the persistence indices for PPRO, VC and E.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>Sa</th>
<th>O</th>
<th>So</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPRO</td>
<td>5.4</td>
<td>2.09</td>
<td>--</td>
<td>--</td>
<td>3.13 (A/Sa)</td>
</tr>
<tr>
<td>PPRO</td>
<td>--</td>
<td>--</td>
<td>6.71</td>
<td>7.33</td>
<td>6.9 (O/So)</td>
</tr>
<tr>
<td>VC</td>
<td>6.42</td>
<td>5.56</td>
<td>--</td>
<td>--</td>
<td>5.9</td>
</tr>
<tr>
<td>E</td>
<td>--</td>
<td>--</td>
<td>4.72</td>
<td>6.1</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 38: Persistence indices of PPRO, VC and E devices. Ambiguity index for PPRO device.
Table 39 shows that there is a striking discrepancy between the persistence indices for PPRO devices used to code A/S₂ vs. O/S₀ participants. The PPRO device is used for relatively non-persistent A and S₂ participants (aggregate P index = 3.13), but quite highly persistent O and S₀ participants (aggregate P index = 6.9). This means that O and S₀ participants coded with the PPRO device are destined to be mentioned more often in the subsequent discourse than are A or S₂ participants coded with the same device. This fact contrasts with the persistence indices for the VC and E devices, which are more similar to each other (5.9 and 5 respectively). It will be recalled from chapter 4, table 27 that when all coding devices are considered, the A and S₂ roles are more persistent than either the O or S₀ roles. Hence the persistence figures for the PPRO device reverse the pattern evidenced by the persistence figures of all the coding devices taken together. In the following subsections I will look at specific examples of the PPRO device in discourse in order to explicate and determine the significance of these preliminary observations.

7.3. Selective contrast -- PPRO and A/S₂ participants

Doris Payne (1985) suggests that one of the functions of pre-predicate position in Yagua is contrastiveness, as defined by Chafe (1976). In this section I will explore
this hypothesis from a slightly different direction, and with particular reference to pre-predicate pronouns.

In defining the term 'contrastiveness' Chafe (1976:33-5) lists three factors: 1) the awareness (on the part of the speaker, and assumed to be shared by the hearer) that the event described by the contrastive sentence in fact occurred, 2) a set of possible candidates that might participate or have participated in that event in a particular capacity, and 3) an assertion as to which of the possible candidates is the correct one. Certainly this notion of contrastiveness is compatible with the disambiguating function of the PPRO device used to code A/S<sub>a</sub> participants suggested by the topic continuity figures in table 38. I will now illustrate several specific examples in order to evaluate to what extent Chafe's notion of contrastiveness is in fact a component of the environment for the PPRO device.

In the following excerpt from the Kneebite Twins tale (appendix 1), the PPRO device is used in a situation where all of Chafe's criteria for contrastiveness seem to be met. The hero of the story, Mokáyu, and his sidekicks, the kneebite twins, have come upon a huge boa constrictor and are debating who will be the one to do the boa in. First Mokáyu speaks:
(164)  a. 'Rًا-ًا jaachi-dii-tyée-nił, kił?'
    1SG-IRR spear-ANTIC-INTS-3SG huh
    'Shall I spear him?' (KT57)

        b. Sًا-ู้ta núŋovaañaŋ:
          3SG-say JIITA wasp
          The wasp says: (KT58)

        c. 'Née. Nády jiiŋ rًا jaachi-mił.'
          NEG 1DLEX:PRO JIITA IRR spear-3SG
          'No. WE will spear him.' (KT59)

In 164c it is presupposed that somebody will spear the boa. There is also a limited set of possible participants
that might spear him, namely Mokáyu and the wasp twins.
Finally there is the assertion on the part of one of the
twins that the twins are in fact the ones that will do the
spearing, to the exclusion of Mokáyu.

In the following excerpt the PPRO device is used to
code each of a pair of S₁ participants:

(165)  a. Nűų jiiğa tąqany-ii.
        one JIITA return-NOM:ANIM
        'One of them returned.
        (Lit: 'One of them is a returned one. ')

        b. Nii-niy jiiğa mísa-dųy.
        3SG:PRO-NIY JIITA heal-DAY
        'HE₁ got well.'

        c. Nűų jiiğa jaa-ñuvii tįitąju roori-viimų-jų.
        one JIITA enter-ARR1 all house-inside-towards
        'One j went right into the house.'

        d. Nii-niy jiiğa diy tįitąju.
        3SG:PRO-NIY JIITA die all/completely
        'HE₁ died completely.'

In 165b and 165d only two of Chafe's criteria for a
contrastive sentence are apparent. There is a set of
candidates that might have gotten well (165b) or died
(165d), and there is an assertion as to which of the possible candidates is the correct one, specifically the one who got well is the one who returned and the one who died is the one who went right into the house. It is not clear that prior to 165b and 165d there is a common awareness that someone died and someone else got well. Rather it is asserted by the speaker that this is the case. The PPRO devices in 165b and 165d strongly assert that the participant being coded is the same as the one mentioned in the previous clause to the exclusion of the other member of the pair. If the simple VC device were used in 165b or 165d, it is not clear that the participant being mentioned would be necessarily identified with the one mentioned in the previous clause. That is, if 165b employed the VC device, even if it were understood that the one who got well was in fact the same one that returned (and in the absence of a native speaker I cannot test this hypothesis), the identity of that participant would not be the main assertion of 165b. I venture to speculate, though with some certainty, that it would not be a necessary condition on the interpretation of 165b that the one who got well is the same as the one who returned. However, with the PPRO device such a stipulation is in fact demanded.

Excerpt 166 is from another text where the PPRO
device is used to code participants filling the semantico-syntactic role A:

(166) a. Ra-dyéétya-rquí-kyey,
    1SG-know-POT-EVID
    'I want to know

    b. níi-numáá-tiy vátan-tán-dyé-ryéy, munufú-niy
        3SG:PRO-now-COND curse-cause-DAY-1SG savage-NIY
        if HE cursed me, the savage,

    c. rá-ñiy vátan-tán-dye-ryéy.
        1SG:PRO-NIY curse-cause-DAY-1SG
        or I cursed myself.'

In this excerpt there are two persons who might have cursed the speaker, either 'the savage' or the speaker himself. In 166b and 166c the PPRO device is used to code each of these persons in turn, indicating that the speaker wants to know which of the potential cursers actually did the cursing in contrast to, i.e. to the exclusion of, the other. In this case the assertion of correct identity seems to be missing. Again, if the simple VC device were used in this context it would not be clear that the savage and the speaker were being contrasted. It might be translated 'I want to know if he cursed me, the savage. I cursed myself', with no explicit indication that one participant must have done the cursing to the exclusion of the other.

The final excerpt illustrating the PPRO device used to code A participants appears in chapter 2, section 2.1.5, and will be repeated here for convenience. The
preceeding context of this excerpt concerns a group of Yaguas who come upon a group of non-Yagua indians. They wonder how they can speak with the non-Yaguas, since they don't know their language. Then another participant is introduced, a Yagua who happens to be with the group of non-Yaguas:

   there-JIITA-3SG one Yagua-REP 3COL-COM-REP
   There is a certain Yagua person with them too.

      3SG:PRO-NIY JIITA know-INAN white-speak-PART
      HE (this new participant) knows Spanish.

   c. Níi-níy nìkyee-ta-riy níjyqá-vay . . .
      3SG:PRO-NIY speak-TRNS-3PL Yagua-PL
      HE says to the Yaguas . . .

The existential clause in 167a introduces the new participant. 167b asserts that he, as opposed to any of the other Yaguas, knows Spanish, and 167c asserts that he, as opposed to any of the non-Yaguas, speaks to the group of Yaguas. Like examples 162b and d above, only two of Chafe's criteria for contrastiveness are evident here, namely a set of possible referents and an assertion of correct identity.

The following example illustrates the PPRO device used to code an S_o participant:

(168) a. Já-tiy ji-jyéè-byéy jînoo-síy
       DEMO-REL 2DL-father-deceased head-CL:seed(?)
rə-chá-ásiy sa-mariįy,
IRR-be-PROX1 3SG-necklace

'The one who has your father's skull as his necklace,' (Lit: 'The one who your father's skull will be his necklace,')

b. nii-nilii ji-jyąapá.
3SG:PRO-NIY-3SG 2SG-grandfather
'HE is your grandfather.'

In this example an animal/human character is sent to search for his grandfather in order to avenge the death of his father. He is advised by his mother that of all the animals he might encounter, the one that has the skull of his deceased father around his neck is the character's grandfather. Excerpt 168 is a quote from the mother. Sentence 168b exhibits all of the features characteristic of contrastive sentences as defined by Chafe (1976): both mother and son are aware that someone is the son's grandfather, there is a set of possible candidates, namely the animals the son will encounter, and, finally, 168b asserts the identity of the correct candidate. If the alternative short-range coding device (E) were used in this context, the assertion of contrast would not be as strong, though the fact that the grandfather is coded with a noun phrase modified by a relative clause in 168a would serve to contrast the grandfather with other animals that don't have the characteristic mentioned in the relative clause. The emphatic sense, however, would be lost.

The final example in this section is that of the PPRO
device used in combination with a full NP within the same clause to code the semantico-syntactic role 0:

3SG:PRO-NIY 3SG-brother-INTS 2SG-give-REFL
'It's his BROTHER he gives to him.' (TC506)

The context for this example (from the Twin's Cycle) is the following: Placenta transforms himself into a parakeet in order to steal a special seed from Grandfather. Just as Placenta obtains the special seed, Grandfather appears and, infuriated, blowguns Placenta along with a whole flock of other parakeets. He then takes the parakeets home, and has them cooked. Elder Brother then comes visiting Grandfather. Grandfather presents Elder Brother with one of the cooked parakeets as a gift. By chance he pulls out Placenta in contrast to all the other parakeets in the pot. Without the unusual use of PPRO plus NP in 169 there would be no sense of contrast. That is the sentence would simply mean 'he gives him his brother', as if perhaps there were no other entities that Grandfather could have given, or that Elder Brother had come with the express purpose of collecting his brother, and no other possible entity.

The above examples of the PPRO device illustrate what I will call 'selective contrast'. This term is reminiscent of the term 'selective focus' (Dik, et al, 1981), though the two terms are not necessarily synonymous. I will use
the term 'selective contrast' to refer to the kind of contrast in which one member of a set of participants is singled out to the exclusion of the others in the set. Sometimes there may be a proposition that is presupposed (as in example 165), and an assertion that the presupposed proposition holds for one participant, as opposed to all the others. The assertion that the proposition does not hold for the other participants is just as central as the assertion of correct identity. Other times there may be a presupposed proposition, a set of possible participants, and an assertion that the proposition holds for only one member of the set, to the exclusion of the others, but with no specific assertion as to which participant in the set is the correct one (as in example 163). This case may only be relevant when the contrastive sentence is in the irrealis mode. Finally, there may simply be a set of possible participants and the assertion of some proposition pertaining to one or another (as in examples 163 and 165). Again, the assertion that the proposition does not hold for the other participants is just as strong as the assertion of correct identity.

This notion of selection and exclusion (which seems to me a stronger notion than simple disambiguation) is consistent with Chafe's definition of contrastiveness, but leaves out the requirement that there be a shared awareness that the event described by the contrastive
sentence in fact occurred. In an English sentence like 'RONALD made the hamburgers', with no stress at all on 'made the hamburgers' it indeed seems reasonable that 'someone made hamburgers' must be a presupposition shared by speaker and hearer. However, an element can be contrastive without such a presupposition, e.g. if someone says 'SALLY made a SALAD and RONALD made HAMburgers' the fact that someone made a salad and someone else made hamburgers is not necessarily presupposed knowledge. To the contrary, it seems most reasonable to suggest that with this particular wording these propositions are asserted, rather than presupposed. Chafe (1976:35) describes the sentence 'SALLY made the SALAD, but RONALD made the HAMburgers' as a double focus of contrast in which it is the particular pairing of participants and events that is asserted, though the events themselves are presupposed. This may be true as far as sentences of the type Chafe presents are concerned (i.e. where definite direct objects are contrasted), but it does not follow that all instances of contrastiveness must have this presupposition. It is clear here that we are dealing with two or more kinds of contrastiveness (see, e.g. Dik, 1978 and Dik, et al, 1981 for several different notions of what might be called contrastiveness). I introduce the term selective contrast here simply to distinguish the kind of contrast I perceive the PPRO device codes, at least for A
and $S_a$ participants, from that which is described by Chafe (1976).

7.4. Discourse deployablility -- PPRO and $O/S_o$ participants

Philip Jaggar (1983) uses the term 'discourse-deployability' to describe a functional continuum related to the topic continuity index of persistence. That is, participants that are mentioned often in discourse are 'deployed' more than those that are mentioned less often. In Hausa, the language discussed by Jaggar, there is a special set of markers used to introduce certain participants, but not others. Jaggar shows that those participants that are introduced with one of these markers are deployed substantially more in subsequent discourse than are those introduced without one. Thus Jaggar assigns the meaning 'deployable indefinite marker' (DIM) to these operators. When a DIM is used the participant is thereafter 'deployable' in discourse. It may or may not actually be deployed more than non-DIM marked participants, but the claim is that it can be so deployed, whereas non-DIM marked participants cannot. The more general principle that derives from this claim is that more salient or important participants are coded with more substantial morphological marking than are less salient participants. Thus a functional continuum of 'salience' or 'importance' is iconically represented in a

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A formal two point scale of morphological size (the two points being presence vs. absence of a DIM).

At first glance this claim seems to run counter to the iconicity principle of topic continuity, which states that more predictable topics are coded with less substantial morphological marking than are less predictable topics. Certainly humans are more likely to talk about highly salient or important participants, however we may interpret these terms. Therefore high salience must surely correlate with high predictability. It is more predictable, i.e. less surprising, that a speaker should choose more important or prominent participants as topic than less important or prominent participants, all other factors being equal. How can it then be the case that high salience should be coded with larger morphological marking, but high predictability should be coded with smaller morphological marking?

I believe that we must appeal to the pragmatic distinctions between the semantico-syntactic categories of subject and object in order to answer this question. Humans are more likely to be coded as subjects insofar as subject is the morphosyntactic category typically used for participants in perspective (Fillmore, 1977), and human speakers are likely to place humans participants in perspective, since humans most naturally empathize with other humans. Human participants are less likely to be
coded as objects, since this is a morphosyntactic category typically associated with patients, non-actors and non-controllers. Since humanness is a crucial component to Jaggar's notion of salience, his analysis does not go far enough in that he does not define salience in relation to subject and object roles. I believe the two superficially distinct concepts of salience and predictability fall together when we consider this pragmatic distinction between subject and object roles.

There are many cases in language where unexpected combinations of pragmatic features are overtly marked in some way, while the expected combinations are left unmarked. For example, in Spanish, referential human direct objects are marked with the preposition a while non-human and non-referential human direct objects are not marked:

(170) Estoy buscando a Juan.
     'I am looking for Juan.'

(171) Estoy buscando a una empleada.
     'I am looking for a specific maid (referential).'</n
(172) Estoy buscando una empleada.
     'I am looking for a/any maid (non-referential).'</n
(173) Estoy buscando mis/las llaves.
     'I am looking for my/the keys.'

In Spanish, subjects are never case marked, regardless of the human/non-human, or referential/non-referential distinctions. Therefore it is not the case in 168 and 169
above that the human referential direct objects receive extra marking because they are more salient than the non-referential DOs in 170 and 173 (though they certainly are, given Jaggar's definition), but because the collocation of humanness and referentiality with direct object position is unusual, or surprising. Human, referential participants are much more likely to be subjects than objects. Therefore when they occur in an object role, they receive a special flag indicating an unusual collocation of pragmatic and syntactic roles (see e.g. Comrie 1981:122ff for a more general discussion of this phenomenon). This is a general pragmatic constraint that Spanish has crystalized into a strictly categorical rule.

These observations may help us understand the discrepancy in persistence indexes for the PPRO device used for A/Sₐ and O/Sₒ participants in Yagua. As mentioned above, the PPRO device is only used for animate participants, insofar as there are no non-demonstrative free pronouns referring to inanimates in Yagua. Animates are more likely to occur in the A/Sₐ category because of the amenability of this category to active, agentive semantic roles. Animates are less likely to be found in the O/Sₒ category, especially animates that figure prominently in the discourse, i.e. those that are highly persistent. It is exactly this class of O/Sₒ participants
(animates that are highly persistent) that are coded with the PPRO device. This fact suggests the following hypothesis: use the PPRO device to indicate high deployability of an O/S_o participant. It is more typical for objects to be less salient, and less topical than subjects. Therefore the assignment of more substantial morphological coding (in this case PPRO) to more salient, and more topical participants in this semantico-syntactic role is understandable. Unusual collocations of semantic or pragmatic features and syntactic roles often require special morphology, as illustrated for the Spanish preposition a.

The following examples illustrate the PPRO device used to refer to O/S_o participants in discourse. These examples will show that deployability is a crucial function of O/S_o participants coded with the PPRO device:

mûkoqsîy.
punchana
'A huge agouti now she brings, a punchana.'

b. Niû-numaa ḟû naanu-mûtiye. 3COL:PRO-now JIITA 3DL-cook
'THEM now she cooks.'

In this example it is clear from the context that the two animals are not being contrasted; both are cooked. What is significant is that the animals, in their cooked state,
continue to figure prominently in the discourse, as follows in English translation:

'She gives to them (other human participants) their cooked piece of flesh. He says to his mother: "Don't eat this piece of worm meat! Do you think it's agouti?"'

There continues substantial discussion of whether the meat is worm meat or agouti or punchana meat.

Other examples of this type are relatively common in discourse. One more will be included here for illustrative purposes:

(175) a. Sa-rámuchu jišta-níi jùnicha, 'vídyá'.
3SG-swallow JIITA-3SG tapir SW
'Hei swallow the tapirj, "vídyá".'

3SG:PRO-now 3SG-twist-TRNS INAN-middle
'HIMj hei makes twist its middle.'

Up to this point in the text the tapir has been a central character (see section 4.2), and afterwards the tapir continues to figure prominently, as follows in translation:

A long time he stays there under water. His mother comes along in hopes of seeing him. 'Where can my son be? Maybe a snake has bitten him.'

And so on.
7.5. Conclusion

In this chapter I have attempted to show that the concepts of selective contrast and deployability are crucial to an understanding of the use of the PPRO device in Yagua discourse. Unlike the concepts of change of scene, unexpected action and episodic climax used in chapter 6 to explain the use of $S_o$ coding on verbs, selective contrast has no independently verified definition apart from the use of the PPRO device. Although this 'explanation' of the use of PPRO is, strictly speaking, circular, the evidence of the specific examples cited should suffice to demonstrate the empirical validity of this concept. The definition of selective contrast arrived at through inspection of particular examples on the PPRO device is the following:

A short range coding device indicates selective contrast if it asserts the identity of a particular participant to the exclusion of other possible referents currently present on the discourse stage.

This definition excludes the VC and E devices, since these do not inherently impart the assertion of exclusive identity. In most cases the correct identity of the participant being coded by the VC or E device is in fact understood. However, there is not the necessary assertion
that this participant be the only one to have undergone the action in question. This definition seems to hold up for the instances of the PPRO device found in my corpus. Further research will reveal to what extent this condition can a) be shown to hold for all instances of the PPRO device in Yagua, and b) be identified apart from specific instances of unusual coding devices such as PPRO.

The concept of deployability has been shown to be particularly relevant for the categories of $O$ and $S_o$ participants. The PPRO device is much more likely to code deployable (i.e. persistent$^5$) $O$ and $S_o$ participants than $A$ or $S_a$ participants. This fact is understandable in terms of the typical pragmatic functions of the morphosyntactic categories of subject and object. $A$ and $S_a$ participants in Yagua are in general more deployable than $O$ and $S_o$ participants. Hence when an $O$ or $S_o$ participant is highly deployable, special morphosyntactic coding is induced. For short range participants, that special coding is the PPRO device.
FOOTNOTES to chapter 7

1. Nowhere do Givón, A. Fox or Sun and Givón explicitly define the term 'contrastive.' For this reason, I will continue to enclose the term in quotes when referring to it's use in these works. Sun and Givón (1985) virtually equate the index of Ambiguity with 'contrastiveness', e.g. by calling the Ambiguity index of 1.00 the 'bottom of the contrastiveness scale.'

2. It may not be immediately clear how a pronoun can discriminate between competing referents with greater efficiency than a verb-coding prefix or enclitic, both of which are equally as specific as the pronoun in indicating person and number. Hopefully, the following explication of individual cases will make it clear that pronouns in fact do have this function.

3. The NP munuñuniy is an afterthought that recapitulates the subject of the sentence. It is not normal for a subject NP to occur after the object, so this NP is obviously outside the main predication. The presence of the comma in the original transcription suggests an intonational pause, thus further supporting this conclusion. The presence of -niv following the afterthought subject preserves parallelism between the
PPRO device and the subject NP, thus further clarifying that the NP refers to the subject of the sentence.

4. This use of the pronoun nii to code a semantically non-singular referent is an example of the 'collective' use of 3SG forms discussed in footnote 3 of chapter 2. Groups of non-personified animals are virtually always coded with singular forms. Since space does not permit inclusion of the entire, rather lengthy, portion of text necessary to justify the translation 'them' in this particular example, I simply ask the reader to accept my translation on faith.

5. Persistence is an index of deployability. That is, it indicates whether a participant has been deployed or not; it does not constitute a definition of deployability.
8. Chapter 8: Conclusions and Directions for Further Research

This thesis set out to accomplish two goals: 1) to provide accurate and usable information on Yagua, a little-studied language of the Amazon basin, and 2) to test and evaluate certain hypotheses emerging within the sub-disciplines of discourse analysis and functional linguistics. In attempting to reach these goals, I explored one specific functionally-defined area of Yagua grammar -- the participant coding system. In chapters two and three I presented the formal details of that system by describing the various morphosyntactic devices used to code participants. In chapter four I examined the use of a sub-set of those devices in terms of the framework of topic continuity developed by Givón (1983a,c,d) and others. I introduced several modifications to this framework in an attempt to more accurately isolate the functional factors at work in determining the choices between various coding devices in discourse. In chapters five, six and seven I focussed on particular problems raised by the findings of chapter four, and in the process uncovered various additional factors that influence the use of coding devices. In the present chapter I will summarize the key findings of the earlier chapters, and
will attempt to discern some unity in the various observations that have been made. Certain directions for further research will also be suggested.

8.1. The multi-dimensional nature of functional continua

8.1.1. Persistence and Referential Distance in conflict

A basic assumption of the framework of topic continuity outlined in chapter four is that coding devices which are in paradigmatic relationship with one another typically represent distinct points arranged along a continuous functional scale (Givón, 1981). Morphosyntactic categories are necessarily discrete, whereas the functional domains they code are typically nondiscrete continua. For example, if a paradigm has three members, A, B, and C, a speaker is constrained to choose one of these three, even though his or her message may involve a feature that falls most logically between A and B, or between B and C. A simplistic and oft-cited example of this phenomenon is that of basic color terminology. Language, and perhaps cognition in general, necessarily imposes discrete categories on a nondiscrete reality.

Givón (1983a,c,d) is concerned primarily with the functional domain of topic continuity or accessibility. As discussed in chapters 1 and 4, topic continuity (sometimes referred to as topicality, accessibility or availability,
depending at least partly on the particular metaphor one uses) is a scalar domain that every language must deal with using discrete formal devices, such as noun phrases, pronouns, verb agreement, etc. A speaker is constrained by the structure of his or her language to choose, for example, either a noun phrase or a pronoun to code a particular participant at a particular point in a text. That choice is based on the speaker's estimation of how accessible the participant being coded is to the hearer. Thus a binary coding choice (full noun vs. pronoun) is based on a scalar functional domain (accessibility).

It is crucial to the methodology associated with this framework that 1) the functional domain under consideration be defined and quantified independently of the formal devices that are used to code it, 2) the formal coding devices used to code this domain be identified, and 3) a universal iconic relationship between the set of coding devices and the functional domain be established. For example, the iconicity principle of topic continuity (Givón, 1983c:18) predicts that more accessible participants will be coded with 'smaller' morphological devices than less accessible participants. A counter-example to this principle is therefore easily imagined. If a language has a set of participant coding devices including D and D', where D is consistently 'smaller' than D', that language violates the
topic-continuity hypothesis if, in an appropriately conducted quantitative study, it is shown that D typically codes participants which are less continuous than those coded by D'.

The three indices that are said to quantify the functional domain of topic continuity are Referential Distance, Persistence and Ambiguity (see chapter 4, section 4.1). There are several formal devices that code this functional domain, all of which are arranged according to various 'scales'. One such scale is the scale of phonological size. Phonologically larger coding devices are said to code less accessible participants, since such participants require more 'work', i.e. more substantial morphological marking, in order to be identified. In Yagua the scale of phonological size is arranged as follows:

(176) 'Small' --
     0 VC/E PPRO NP VC/E+NP
     'Large'

If this scale directly paralleled the functional domain of topic continuity (or accessibility) we would expect that zero would code the most continuous topics, and continuity would decrease diagramatically as the phonological size of the various coding devices increased.

In fact, however, we find that neither of the indices of topic continuity calculated in this study, Referential Distance or Persistence, directly parallels this scale at
all. The clearest findings of the topic continuity study of chapter 4 are that full noun phrases are used to code participants that had not been mentioned recently in the discourse, and that the other devices are used to code participants that had been mentioned more recently in the discourse. Thus, the index of Referential Distance simply divides the scale of phonological size into two general areas, rather than into distinct coding points for each device, as indicated in Table 40.

<table>
<thead>
<tr>
<th>Scalar (?) functional domain:</th>
<th>Short-range --&gt; Long-range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal coding areas:</td>
<td>small</td>
</tr>
<tr>
<td>Devices:</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>VC/E</td>
</tr>
<tr>
<td></td>
<td>PPRO</td>
</tr>
</tbody>
</table>

Table 40: Scale of phonological size as divided by the index of Referential Distance

This finding simply reinforces the intuitions expressed by Grimes (1975) and Chafe (1976) that 'more attenuated' devices are used for participants that are more 'available' in memory, and adds further substantiation to the general findings of much recent cross-language work on topic continuity, e.g. the studies in Givón 1983b. The iconicity principle of topic continuity correctly predicts the arrangement of these two areas with respect to each other in the domain quantified by the index of Referential Distance, but has virtually nothing to say with regard to the arrangements of particular coding devices within each area.
The index of Persistence, on the other hand, does not divide the scale of phonological size in the same way as does Referential Distance. The relationship of Persistence to the scale of phonological size is complicated by the fact that semantico-syntactic role is a significant factor in the ordering of the various coding devices. That is, two different scales, one for A and Sa participants and another for O and So participants, are defined by the Persistence index. These two scales are represented in Table 41.

Scalar functional domain: Persistent --> Non-persistent

<table>
<thead>
<tr>
<th>Devices (A/Sa roles):</th>
<th>VC</th>
<th>VC+NP</th>
<th>PPRO</th>
<th>NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Persistence:</td>
<td>5.9</td>
<td>5.13</td>
<td>2.71</td>
<td>2.5</td>
</tr>
<tr>
<td>Devices (O/So roles):</td>
<td>PPRO</td>
<td>E</td>
<td>E+NP</td>
<td>NP</td>
</tr>
<tr>
<td>Mean Persistence:</td>
<td>6.9</td>
<td>5</td>
<td>3.64</td>
<td>2.43</td>
</tr>
</tbody>
</table>

Table 41: Orderings of coding devices according to index of Persistence and semantico-syntactic role

Neither of the arrangements represented in table 41 parallel the scale of phonological size. However, if we consider the persistence indices of coding devices within each area defined by the RD index individually, some interesting observations emerge. These observations will be outlined in the following subsections.
8.1.2. Persistence in the long range area

Within the 'long range' area, i.e. among the devices typically used to code relatively distant participants, we notice that for all semantico-syntactic roles simple NP is the least persistent device, while the recapitulating devices (see section 4.6) are more persistent:

<table>
<thead>
<tr>
<th>Recap</th>
<th>Simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/S_a</td>
<td>VC+NP</td>
</tr>
<tr>
<td>O/S_o</td>
<td>E+NP</td>
</tr>
<tr>
<td>Persistence:</td>
<td>higher</td>
</tr>
</tbody>
</table>

Table 42: Relative Persistence indices of long range coding devices by semantico-syntactic role

This observation runs counter to the iconicity principle of topic continuity if we are to take high Persistence to be an index of high continuity. It is not the case that the 'larger' coding devices, VC+NP and E+NP, code topics which are less persistent. From the data in table 42, it appears we must either reject the iconicity principle of topic continuity, or reject Persistence as an index of topic continuity. In section 8.1.4 I will opt for the latter approach.

8.1.3. Persistence in the short range area

The discussion of the use of the PPRO versus VC/E devices in chapter 7 shows that the index of Persistence does play a role within the short range area of the scale.
of phonological size as well. The situation is further complicated here, however, by the fact that the patterning of the 'smaller' devices (VC and E) with the 'larger' device (PPRO) is reversed for the general categories of semantico-syntactic role, as illustrated in Table 43:

<table>
<thead>
<tr>
<th>A/S_a</th>
<th>VC</th>
<th>PPRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>O/S_o</td>
<td>PPRO</td>
<td>E</td>
</tr>
</tbody>
</table>

Persistence: higher lower

Table 43: Relative Persistence indices of short range coding devices by semantico-syntactic role

An additional finding of chapter 7 is that high ambiguity is correlated with the use of PPRO, especially for A and S_a participants. This fact, combined with a case-by-case analysis of individual examples of the PPRO device, suggests that the notion of selective contrast is the key to the use of this device, at least for the A and S_a roles. It is not so clear that selective contrast plays such a strong role in the use of PPRO for O and S_o roles. In the latter case, it appears that the PPRO device is used to indicate recently mentioned O or S_o participants that are highly deployable, i.e. that are destined to figure prominently in the immediately ensuing discourse. It is understandable that this should be a factor for the O and S_o roles and not for the others in that O and S_o are roles typically associated with less persistent participants (see chapter 4, Table 25). Thus
when an O or an S\textsubscript{o} participant is destined to be more persistent, special attention is called to it by the use of a larger coding device and the marked pre-predicate position in the clause.

8.1.4. Continuity vs. deployability

There are several hypotheses that might be advanced as explanations for the fact that the index of Persistence does not rank the various participant coding devices of Yagua according to the scale of phonological size. First, the null hypothesis is that the index of Persistence is not a measure of any functional domain at all. This would be equivalent to saying that whether or not a participant is destined to appear frequently in ensuing discourse is completely immaterial to the coding choices a speaker makes. Second, Persistence might be an index of an entirely different domain than is Referential Distance. Third, the Persistence index might be sensitive to more than one functional domain simultaneously. Although a full investigation of these, and possibly other, hypotheses will have to await future research, I will suggest here that the Persistence index measures a domain which is logically distinct from that measured by Referential Distance. This domain has been called 'referentiality' by Du Bois (1980), 'manipulability' by Hopper and Thompson, 1984, and 'deployability' by Jaggar.
(1985). In chapter 7 we have seen how the notion of deployability provides a reasonable cognitive explanation for the discourse patterning of the PPRO coding device. In the following discussion I will show that there is no particular reason to expect that Persistence should quantify the same functional domain as Referential Distance. I will also claim that deployability is a functional domain logically independent of topic continuity, and that the patterning of the various coding devices observed in this thesis is predicted given the nature of these two domains.

Jaggar (1985) suggests a principle which he terms the 'salience: coding hypothesis'. This hypothesis is stated as follows:

Prominent and persistent human referents are generally assigned more complex morphological marking than less salient, non-human arguments (Jaggar 1985:113).

This hypothesis can be described as an 'iconicity principle' insofar as a functional domain of 'prominence' or 'salience' (elsewhere associated with the more overarching notion of deployability) is juxtaposed to a formal scale of 'complexity of morphological marking.' The hypothesis predicts that more 'salient' participants will receive more complex marking and less salient participants will receive less complex morphological marking. Jaggar quantifies the functional domain by counting the number of
subsequent mentions of a participant in the entire text. This methodology is similar, but not identical, to the method employed in this thesis for establishing Persistence indices, i.e. Persistence in this thesis is roughly equivalent to Jaggar's 'prominence', 'salience' or 'deployability'.

It is intuitively reasonable to suppose that 'more-complex' morphology should be associated with more prominent participants in discourse, however the term 'prominent' is construed. For instance, an informal survey of register phenomena in English reveals that terms used for participants higher on a scale of honor or formality tend to be larger than terms used for participants lower on the scale:

    you > your honor > Madame President
    Bob > Robert > Professor Stockwell

This fact might be said to be an instance of the potentially universal metaphor 'more is better' (Lakoff and Johnson 1980:22).

However intuitively reasonable the salience:coding hypothesis may be, if it is taken strictly at face value it makes exactly the opposite predictions as the equally reasonable iconicity principle of topic continuity. That is, where the principle of topic continuity predicts that
the most topical participants will be coded with minimal morphological marking, the salience:coding hypothesis predicts that more salient participants will be coded with more complex morphological marking. To the extent that the notions topicality and salience overlap, these principles are in direct conflict.

I believe that the solution to this dilemma lies in the fact that deployability is a domain that relates forward to the subsequent text, whereas topicality is a domain that relates backwards to previous text. That is, participants only receive reduced morphosyntactic coding after they have been established as 'referential' (in the sense of Du Bois, 1980), or deployable. Before the referentiality of a participant is established, it requires extra effort, i.e. more complex or 'larger' coding devices, to call attention to that participant in order to signal to the listener that this participant is going to be important.

Note that this principle is not necessarily limited to initial mentions of participants. Participants may be mentioned in previous text, but not established as deployable. This is particularly obvious in the case of 'discourse promotion' described in chapter 5, section 5.2.3. Here participants are introduced as full noun phrases in an oblique role, and then are recapitulated as full noun phrases in the immediately following sentence in
a more central grammatical role. Only after they have been mentioned as subject or object can they be freely coded with reduced coding devices. Hence it appears that mention as an oblique (or possessor) is not necessarily sufficient to establish a participant as deployable. Another example of this fact might be the pattern of persistence indices for the PPRO device described in chapter 7. When a participant that is going to be deployed in subsequent text appears in a role normally associated with less deployable participants, more complex marking (the PPRO device) is called for in order to alert the listener that this participant is something more than just a common, relatively non-deployable direct object. This argument is independent of how topical that participant might be.

The central point to be gleaned here is that there is no necessary reason why the indices of Referential Distance and Persistence should measure the same functional domain at all. The fact that Persistence relates to subsequent text indicates that it measures the deployability of participants, whereas the fact that Referential Distance relates to prior text indicates that it measures the continuity of participants. Continuity and deployability are two logically distinct domains that are sensitive to two different iconicity principles.
This study has only barely begun to scratch the surface of the relationships between functional domains and formal coding devices operative upon and within the participant coding system of Yagua. The picture that emerges from this admittedly sparse treatment, however, is one of great complexity and interrelatedness. We have observed that the same paradigmatic set of formal devices is subject to the influences of several functional domains. Particular domains that have been hinted at, though not fully articulated, in this thesis are topic continuity, and deployability, with additional reference being made to the notions of contrastiveness, climax and thematic boundary. Further research will certainly uncover additional domains, and additional complex interrelations.

8.2. Location and discourse structure

A major contribution of this study has been to draw attention to the importance of location in the discourse structuring strategies of Yagua, and to show how this emphasis on location has specific and universally motivated morphosyntactic consequences. It has often been observed that change in location is a component of, or represents a certain type of, thematic juncture (Grimes, 1975:218, Givón, 1983c:158, to name a few). In this thesis, particularly chapter 6, it has been shown that, for Yagua, location plays an unusually significant role in
delimiting high level discourse units. This high degree of reliance on location has specific and unusual morphosyntactic consequences for the participant coding system of the language, namely subjects of intransitive verbs of locomotion at locationally defined discourse junctures tend to be coded like objects. Although this particular morphosyntactic phenomenon had itself previously not been correlated with discourse structure for other languages, I have observed two ways in which this fact is reflected in other languages, and thereby may, under further investigation, be shown to be a significant language universal: 1) there is a tendency for certain active predicates of locomotion to be treated morphosyntactically like stative predicates, and 2) morphosyntactic correlates of the category 'direct object' are often attributed to the category 'subject' under discourse conditions of discontinuity (Givón, 1983b; Doris Payne 1984) or counter expectation (Gary, 1980).

8.3. The contribution of South American linguistics

The final major contribution of this study has been to emphasize the importance of the rigorous and systematic investigation of the languages of South America in order to evaluate claims made by general linguistic theory. Many previously documented 'universals' of language have been shown not to hold for certain languages of South America.
For example Derbyshire (1977) and Derbyshire and Pullum (1981) show that OVS is an attested basic word order, while Doris Payne (1985) shows that Yagua violates several previously proposed universals of word order correlates. On the other hand, this thesis has illuminated other possible universal tendencies that may not have been noticed were it not for close examination of South American languages. In particular I refer to the correlation between stative morphology and predicates of locomotion, as well as the possible discourse-based motivations for such a correlation.

In conclusion I would make a plea for more consistent and comparable data, both grammatical and lexical descriptions as well as accurately analyzed texts, from the hundreds of languages still extant on the continent of South America. The next decades will see the extinction of several languages that have as yet not been studied and described in such a way that future researchers will be able to make consistent and accurate analyses. Not only is this a loss to the community of scholarly linguists, but also to the community of the world, in that the loss of a language means the loss of a unique culture and its potential to enrich the experience of all members of the human family.
Footnote to chapter 8

1. For Jaggar, humanness contributes to the likelihood that a participant will be highly deployable in the same sense that humanness (or at least animacy) contributes to the likelihood that a participant will have the role 'agent' in clause level semantics. However, humanness itself is not a component of the definition of deployability, though the quoted passage may give this impression. The deployability of a participant is based strictly on the number of subsequent mentions of that participant in the text.


Givón, T. 1985. The pragmatics of referentiality. MS


Munro, Pamela, and Lynn Gordon. 1982. Syntactic relations in Western Muskogean. Lg. 58.81-115.


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Appendix 1:

The Kneebite Twins, (KT)

Laureano Mozombite

The original recording of this version of the Kneebite Twins tale was made by Paul Powlison, and a description of the story appears in Powlison (1969). The present retranscription and translation was made by Mamerto Macahuachi and Thomas E. Payne.

This is a story about a mythical culture hero named Mokáyu, and a pair of not-so-heroic identical twins. The twins are half wasp and half human, being born of a wasp bite on Mokáyu's knee. The story involves a journey on the part of the three central characters, and each episode represents an adventure at a particular point in the journey. Thus the story exhibits linear locational structure as described in T. Payne, 1984b. The adventures usually involve a conflict where Mokáyu is initially ridiculed or victimized in some way by the twins, but in which he eventually triumphs due to his superior wisdom and cleverness. The story ends with the twins acknowledging Mokáyu's superiority.
1. Darya-niy sa-ů-ů-yada nuŋvaaffu-niį thus-NIY 3SG-bite-PAST3 wasp-3SG
taŋryi-munátyi-į. long:time-first-NOM
Like this our ancestor was stung by a wasp.

2. Rá-vicha-nůů-yada siįtya Mokáyu. INAN-be-CONT-PAST3 3SG-name Mokáyu
His name was Mokayu.

Scene I: Mokáyu's House

3. Rá-poo jiį sa-ů-ů-jyŋ. INAN-swell JIITA 3SG-bite-NOM
His sting swelled.

The wasp sting on his knee swelled up huge.

For one month he was laid up with it.

Finally he looked at it, 'įįin!'

He can't stand it anymore.

8. 'Ra-diį-tya-rů-ů-ńumaa pariché-dyé-rya.' 1SG-die-TRNS-POT-now finally-DAY-INAN
'I'm about to die with this!'

9. Şu-unůůų jįįta yá-ąžaį-sįįy rá-dakuuy. 3SG-look JIITA 4-knee-LOC INAN-black
He saw that his knee was black.

Inside his knee was becoming black.

11. Sa-ryį jįįta-ra rooda. 3SG-grab JIITA-INAN thorn
He grabs a thorn.
12. 'Rą-a jántya-dii-tyéé jįchitye-eda-téé.
   1SG-IRR try-ANTIC-INTS prick-PART-INTS
   'I'm going to try to open it.'

   INAN-have:pus-now-little-INTS-DAY
   Now it has a lot of pus.'

14. Sa-niy jįchitiy jįtta,
   3SG-MALF prick JIITA
   He pricks,

15. sa-sańe-yąa-níta
   vari-dyéy, 'jayo'
   3SG-yell-DIST-NEG(rhet-quest) then-DAY SW
   and then does he ever yell, 'ayau!'

16. 'nįjyąami-fíita vicha-sara rą-adasi-ńubee-dáy,
   people-NEG(rhet) be-NOM 1SG-knee-inside-DAY

   nįjyąami?'
   people
   'Are there people inside my knee, people?'

   3DL-emerge-DETRNS JIITA-INAN then
   So two emerge.

18. Naada-supáta-myáá-jįjįta kari da-nu-jųų
   3DL-emerge-PERF-JIITA swell two-CF:ANIM-two

   vánu-jų-dyéé-rų.
   male-two-little-one
   Two emerged, two male children.

   there-now-JIITA 3SG-grow-TRNS-3DL
   There he raised them both.

20. Tąari-pyu-numáa-ti-fíiy naani-ita-jįjį si-iva,
    long:while-after-now-REL-NIY 3DL-say-JIITA 3SG-to
    After a time the two of them say to him,

21. 'Vánu, vurye-eya rąruváá-va.'
    c'mon 1PLINC-go downriver-to
    'Come, let's go downriver.'

22. 'Vánu, vánu.'
    c'mon c'mon
    'Let's go, let's go!'
23. Ri-inya-jii-ita.
    3pl-go-JIITA
    They go.

---

Scene II: Rainstorm

    there arrive:late-there-3PL
    There they arrive late.

25. 'Jiyu-niy vurya-a maay.
    here-NIY 1PLINC-IRR sleep
    'Here we will have to sleep.'

26. Jiyu-niy vurya-a sutay vurya-ajiiju.'
    here-NIY 1PLINC-IRR shelter 1PLINC-in:front2
    Here we will make shelters to protect us.'

27. Naada-sutay jii-ita nukovaa-nju yaa-ajiiju-day
    3DL-shelter JIITA wasp-DL 4-in:front-for-DAY
    mukadi-ta.
    earth-INST
    The wasp twins make their shelter out of mud.

    3SG-shelter JIITA other-REP-DAY Mokayu-DAY
    The other one, Mocayu, makes his shelter also.

    leaf-INST 3SG-shelter-DAY
    Out of leaves he makes his shelter.

    earth-INST 3DL-shelter-DAY
    Out of mud the others make theirs.

    3DL-go JIITA 3SG-LOC-REP Mokayu-LOC
    The two go to Mocayu.

32. 'Jijin! Taay-muy ji-niy sut-ryuy mukadi-ta,
    SW why-NEG you-NIY shelter-POT earth-INST
    taay-ju?'
    why-for
    'Jijin! Why don't you want to make your shelter out of
    mud, why?'

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33. 'Rá-niy naa-ta yu-utáy rúyururá. Rá-ráy.'
INAN-NIY stop-NEG y'know rain INAN-fall
'That won't stop the rain! It'll fall.'

34. 'Néé da-ñumáá-jú.'
NEG thus-now-for
'I don't care.'

35. Ri-mééy jiitá jásiy.
3PL-sleep JIITA there
They sleep there.

36. Tüqri-pyu jifúva-rya-numáá
long:while-after arrive:late-CF:NEUT-now
    rá-suuy-tyíyiyi.
    INAN-sound-moving:along
After a good while, late, it comes thundering.

37. Rúyurura jááriyiy rú-yumú.
    rain much 3PL-LOC
It rains hard on them.

38. Tüqri-pyu-dee-numáá-tiy rúmyu,
    long:while-after-little-now-COND rain
After it rains awhile,

39. rá-júu-yuq-q-numáá naada-sútay yu-úva,
    INAN-fall-DIST-now 3DL-shelter 4-DAT
    'Tipye.'
    SW
the wasp twins shelter collapses on them 'tipye!'

40. Naada-sañi-yuq-jasúmiy,
    3DL-shriek-DIST-rising
They jump up shrieking.

41. 'Jéén. Naa-pyáru-ñumáá.'
    SW    1IDLEX-get:wet-now
    'Jeen! Now we'll get wet!'

42. Rá-júu-yuq-mu naada-sútay jiitáyú.
    INAN-fall-DIST-LOC 3DL-shelter all
It collapses all at once their whole shelter.

43. Parichéy naada-sií-nyaasíy rá-vii-mu-siy.
    finally 3DL-run-exit INAN-inside-from
Finally they rush out.
Scene III: Mokayu's shelter

44. Siil-jëe-fuwee-jà-ásiy Mokayu sùtìa-jyari-ñaadá.
    run-enter-ARR2-o'land-PROX1 Mokayu shelter-into-3DL
    They force themselves into Mokayu's shelter on arrival.

45. 'Nèé-viy rá-stay ji-chûta-dyæy?'
    NEG-QP INAN-leak 2SG-shelter-DAY
    'Doesn't your shelter leak?'

46. 'Tama-dày tama.
    never-DAY never
    'Not at all, but not at all!

47. Rà-sta-myà ji-mùbeerìy?
    INAN-leak-NEG 2SG-request
    Did you think it would leak?

48. Jì-ëiy jta-jey née rû'murà tachara-ntì-rya.'
    2SG:PRO-NIY say-PROX2 NEG rain test-REP-INAN
    You thought that the water wouldn't test it!'

49. Naana-asacha jàsiy.
    3DL-dawn there
    They wake up there.

50. Rà-ásacha jììta.
    INAN-dawn JIITA
    It dawns.

51. Rì-ya jììta-ntìy.
    3PL-go JIITA-REP
    They go again.

52. 'Vañu-numaa-ntìy.'
    c'mon-now-REP
    'Let's go already again.'

Scene IV: Boa

    there light:fire-ARR2-o'land-PROX1-3PL
    There they light their fires upon arrival.

54. Sù-unùûy jììta nûkøvañu-ntìy,
    3SG-look JIITA wasp-REP
    The two wasp twins look,
55. 'Yą-ą junúúy koodi-chúmay, 
2SG-IRR look snake-large
'Look, a huge boa!'

56. jaŋmu koodiy ji-ňu muchą-ką-mú.' 
large snake DEMO-CL:ANIM Lupuna-fork-LOC 
There is a huge boa in the fork of a Lupuna tree.

57. 'Rą-ą jaachi-dii-tyéé-níi kíi?' 
1SG-IRR spear-ANTIC-INTS-3SG huh
'Shall I spear him?'

58. Sų-ųtay jiíta núkovaľų, 
3SG-say JIITA wasp
the wasp twins say.

59. 'Néé. Naay jií rą jaachi-ñíi.' 
NEG IDLEX:PRO JIITA IRR spear-3SG
'No. We will spear him.

60. 'Tama tįį jaachi-tyaľ-ta rąniy junúú-rya ji-ryúůve.' 
ever anyone spear-INST-NEG MALF look-INAN 2SG-spear
Don't you know that no-one spears with your spear?'

61. 'Jóó.'
yes
'OK.'

62. Sa-nyi jąachiy jiį si-imú. 
3SG-MALF spear JIITA 3SG-LOC
He throws his spear (probably a wasp stinger) at him.

63. Tiíy rá-riy puńchá-vąń-níi. 
NEG INAN-AUX:FRUST penetrate-NEG-3SG
It doesn't affect him at all.

64. Parichéy sa-sii-ryįį Mokáyu, 
finally 3SG-run-in:passing Mokáyu
Finally Mocayu comes attacking.

65. 'Ráy jiį rą jaachi-ñíi, rá.' 
1SG:PRO JIITA IRR spear-3SG EXCL
'I will now spear him!'

66. Sa-jaachiy jiįta. 
3SG-spear JIITA
He spears.

------------------------ Climax ------------------------

67. Mũuy jiį-ñíi, 'puün'. 
there fall-3SG SW
There he falls, 'puun!'
The wasp twins run to recover him.

Now they eat him.

70. Sa-niį vástaa-numaa-yáa-nyàa rá-naachó
3SG-MALF want-now-DIST-right:there INAN-towards
jìípu-dáy.
firewood-DAY
The other one goes looking for firewood.

71. Sa-niį junú-u-ûuvû-ji ř rumu-sìy.
3SG-MALF look-ARR1-JIITA there-from
He looks on arrival there.

72. 'Tijin', Métya rûkaà-dee-numáà.
SW nothing backbone-little-now
Nothing is left but the backbone.

73. 'Rá-numaa-naa sàani-imí-myuu-ntî-ìîì, rá.'
INAN(?)-now-wonder 2DL-eat-COMPL-REP-3SG EXCL
'You've already eaten the whole thing!'

74. Ri-ya jìíta jás-chi-ntìí núú-va.
3PL-go JIITA there-from-REP path-DAT
They go from there by trail.

Scene V: The Twins' Warning 1

75. Müûy maasa-nuwee-já-åsiy sà-ajììju naaðá.
there sit-ARR2-0'land-PROX1 3SG-in:front 3DL
There upon arrival the two sit waiting for him.

76. Naada-díryey jìíta jásì-ìíì, JIITA there-3SG
They greet him there.

77. 'jàtiy ji-ya müûy, Mókà.'
careful 2SG-go there Mokáyu
'Be careful of going there Moká!'

78. 'Tåára-jù-ra?'
what-for-INAN
'Why?'

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79. 'Jáámu ravíchát sax-kíínáy Tốkáchiy yu-unuu-pada-mú.'
    large stone 3SG-defecate Tốkáchiy 2SG-head-top-LOC
    'The Toncachi bird will defecate a huge rock on your
    head.'

80. 'Sî́íteenú? 'Jóónu.'
    really yes
    'Really? 'Yes.'

    3DL-go JIITA-REP
    The two go on.

82. Sa-maachá jííta jásiy naani-íbi-iva.
    3SG-remain JIITA there 3DL-back-DAT
    He stays there where they were.

83. Sa-ya jííta ruumú núú-va.
    3SG-go JIITA there path-DAT
    He goes there by trail.

84. 'Nîñúty-i-jí-ña naani-ité-ési-tyée-níí, núúty-i-jíy?'
    how-place-wonder 3DL-say-PROX1-INTS-3SG how-place
    'In what place did they say he was, in what place?'

    3SG-go-directly 3SG-go-directly
    He goes along, goes along.

86. Sa-tuvąntsú sa-nikyee, 'tôńká, tôńká, tôńká.'
    3SG-hear 3SG-speak SW SW SW
    He hears his call, 'toncá toncá toncá'.

87. Jápiichi-ñumaa-tée, sa-nikyee-tée,
    occasionally-now-INTS 3SG-speak-INTS
    jápiichi-ñumaa-tée.
    occasionally-now-INTS
    Every once in a while he calls, every once in a while.

    straight 3SG-below-now-INTS-3SG
    Now he is right below him.

    there defecate-DAY SW 3SG-head-top-LOC
    There he defecates 'pon!' on his head.
90. To-má-ási-tyéé múco-jári-tyéé-níí.
    leave-down-PROX1-INTS earth-burried:in-INTS-3SG
He leaves him buried in the ground.

Scene VII: Toncachi Bird 2

91. Múúy supaté-ésiy tá-ji-chi-nti-ñii,
supata-y-jásiy4
    there emerge-DETRNS-PROX1 another-place-from-REP-3SG
There he emerges from another place.

92. Múú-chí-ñumaa si-ita-ntíy.
    there-from-now 3SG-return-REP
From there he (the bird) returns again.

93. Jási-ntya sa-nikyéé, 'tqóqá.'
    there-right:there 3SG-speak SW
Right there he calls 'toncá toncá toncá'.

94. Sa-páta-riį jįįta-ra vúdnu-kaa-dāy.
    3SG-pull-in:passing JIITA-INAN branch-dry-DAY
He (Mokáyu) breaks in passing a dry branch.

95. 'Néé rą-a jaachíy,'
    NEG INAN-IRR spear
'I'm definitely going to spear (him)',

96. su-ųtá-yu-ǰůą.
    3SG-say-REPL-?
he says to himself.

97. Sa-páta-riį jįįta-ra.
    3SG-pull-in:passing JIITA-INAN
He breaks it in passing.

98. Sa-nikyéé, 'tqóqá, tqóqá.'
    3SG-speak SW SW
He speaks 'toncá toncá toncá'.

99. Jásiy jaachi-dyéy, 'póó'.
    there spear-DAY SW
There he speaks, 'pon!'

----------------------------- Climax -----------------------------

100. Múúy jůů-ñíí.
    there fall-3SG
There he falls.

101. Sa-ʔásítya-riį jįį sa-múů.
    3SG-pluck-in:passing JIITA 3SG-feather
He plucks his feathers going along,
102. Sa-tûunu-rįį jiį́ta ji-myoo-tągsá-ju-ra.
3SG-weave-in:passing JIITA 4-face-middle-for-INAN
and weaves them going along to place on his forehead.

103. Sa-ya jiį́ta váriy jás-chi-ntiy.
3SG-go JIITA then there-from-REP
So he goes from there again.

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Scene VIII: The Twins' Warning 2
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104. 'Juuun,' múůy sarye-ńuvee-já-ąsiy naada-ntiy.
SW there meet-ARR2-o'land-PROX1 3DL-REP
'Juun!' There they meet (him) on arrival again.

105. Naani-inůūy jiį́ sa-moo-mu-siy,
3DL-look JIITA 3SG-face-LOC-from
They look at his forehead.

106. 'Rá-numaa-naa yu-uvá-ryįį-tée-niį
INAN(?)-now-wonder 2SG-kill-in:passing-INTS-3SG
Tōkáchi-ntiy, rá.'
Tōkáchiy-REP EXCL
'You've killed the Tonkachi bird also!

107. 'Nůū-ta?'
how-NEG
'Why not?'

108. Naani-itay jiį́ sí-iva-ntiy,
3DL-say JIITA 3SG-DAT-REP
They say to him again,

109. 'Játiy ji-ya múů-ntiy, Moká.
careful 2SG-go there-REP Mokáyu
'Be careful of going there again, Mocá.

110. Jaséésiy rą dápuuta-įįy.'
bettle IRR plant-2SG
The beetle will plant you under the ground.'

111. 'Siį́teenů?'
really
'Really?'

112. 'Są-ą jaątyo-rįį ji-ńiy.
3SG-IRR hit-in:passing 2SG-at
'He is going to hit at you in passing.

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113. 'Tyen, mūy rīgā-jīy.
   SW there fall:over-2SG
   Tyen! There you fall over.

   there-REL 3SG-IRR plant-2SG
   There where he will plant you under the ground.

115. Nichāgriiy sā-ā to-mu-jīy.
   deep 3SG-IRR leave-down-2SG
   Deep he will leave you.'

   3DL-go JIITA-REP
   The two go again.

117. Sa-ya jījta naani-ibī-iva-si-ntiy.
   3SG-go JIITA 3DL-back-DAT-from-REP
   He goes after them also.

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Scene IX: The Beetle
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118. 'Tēe-naa-tée  naani-ité-ēsi-tyéé-nii jaséésiy,
   where-wonder-INTS 3DL-say-PROX1-INTS-3SG beetle
   tēe?'
   where
   'Where now did they say this beetle is, where?

119. 'Jusu,' sa-jīj-numaa-yāa jaséési-chūma,
   SW 3SG-fly-now-DIST beetle-large
   Aha. A large beetle is flying around all over.'

120. 'Jēf.' Jāpichi-ńumaa-tée  sa-rāmi-yaq-tēe.
   SW occasionally-now-INTS 3SG-circle-DIST-INTS
   'Jeen' He is repeatedly circling.

----------------------- Climax -----------------------

121. Jāsiy jāatyq-rīj  sa-ńi-ńii, 'tyen'.
   there hit-in:passing 3SG-LOC-3SG SW
   There he hits in passing into him 'tyen!'.

122. Mūy rā-giīi,  'pūu'.
   there fall:over-3SG SW
   There he falls 'pun!'.

123. Sa-dápuuta jāsi-ńii,
   3SG-plant there-3SG
   He plants him there.
124. to-má-ásiy mûkadi-nubee-nîi.  
leave-down-PROX1 earth-within-3SG  
He leaves him in the ground.

125. Sa-supáta-myaa-ntîy.  
3SG-emerge-PERF-REP  
He emerges again.

there-from-now 3SG-returns-REP  
From there he (the beetle) returns again.

there-right:there 3SG-fly-now-DIST 3SG-face-LOC  
Right there in front of him he is flying circling.

128. Sa-jaachiy jîîta-nti-âi, 'pôq'.  
3SG-spear JIITA-REP-3SG SW  
He spears him also, 'pon!'

129. Sa-jóta-řîj jîîta-ra sa-jó.  
3SG-peal-in:passing JIITA-INAN 3SG-covering  
He deshells him going along.

130. Sa-rúpa-âi yî jî-myusi-tyâqsa-ra.  
3SG-stick-TRNS JIITA 4-cheek-middle-INAN  
He sticks it on his cheek.

INAN-twin covering-REP other cheek-middle  
The other shell on the other cheek.

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Scene X: The Twins Warning 3
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132. Si-îîpo jîîta naadi-imu-ntîy. (*)  
3SG-arrive JIITA 3DL-LOC-REP  
He arrives where the other two are again.

133. 'Rá-numâá-ta yu-uvá-ryîj-nîi  
INAN(?)-now-(?) 2SG-kill-in:passing-3SG  
jeëéi-ntîy, râ?'  
beetle-REP EXCL  
'Already you've killed the beetle also!'

134. Naani-itay jîîta sî-iva-ntîy,  
3DL-say JIITA 3SG-DAT-REP  
they say to him again.
"Játiy ji-ya múú-ntiy, Moká. 
careful 2SG-go there-REP Mokáyu 
'Be careful going there also, Moká.

Saritińu-jāšmiy râ tânu ji-ncha. 
caterpillars-large IRR mill 2SG-upon 
The giant caterpillars are going to mill you.

Néé jântyu-ryá sa-vicha-sará saritińu-jāšmiy, 
NEG merciful-NOM 3SG-be-HABIT caterpillars-large 
They are not merciful the giant caterpillars,

ji-ryá-tiy sa-núú kąšsiy múuy.' 
DEMO-NOM-REL 3SG-path terminate there 
the ones whose trail ends there.'

'Jo.' 
yes 
'OK.'

Sa-maacho jįšta jásiy naani-imú-tąšsa-ntiy. 
3SG-remain JIITA there 3DL-LOC-middle-REP 
He remains behind them again.

Sa-ya jįšta-ntiy. 
3SG-go JIITA-REP 
He goes again.

Scene XI: The Caterpillars

"Jųų', Ri-týânu-vąš sa-moo-mų, 'Ti ti ti.' 
SW 3pl-mill-by:chance 3SG-face-LOC SW SW SW SW 
'Jun!' they are milling in front of him 'ti ti ti.'

Jápińchi-dye-numaa-téee ri-týânu-téee. 
ocasionally-little-now-INTS 3pl-mill-INTS 
Repeatedly they are striking.

Nűńyi sî-įtqō-téee rumú, 
almost 3SG-arrive-INTS there 
He almost arrives there.

Jásiy tíí-yađa-týée-níí, 
there pull-PART-INTS-3SG 
There they pull him,

'Juńį', tűnuunu-viimų-ju. 
SW mortar-inside-towards 
'Juin!' inside the mortar!
147. Ri-tyánu jíį sa-ncha, 'ti ti ti ti ti,'  
3PL-mill JIITA 3SG-upon SW SW SW SW  
They mill on top of him 'ti ti ti ti!'

148. jąamiy juru-déé-ju.  
person(?) powder-little-for  
until he is fine powder.

149. Ri-jéétya jíį si-irű.  
3PL-throw JIITA 3SG-powder  
They throw out his powder.

---------------------------------- Scene XIIa ----------------------------------
3SG-transform-COMPL there-REP person-now-REP  
He transforms himself into a person again.

151. Míryani-ńumaa-nťiy.  
complete-now-REP  
Complete he is again.

there-from-now 3SG-walk-directly  
From there he comes walking.

----------------------------------
3PL-mill-by:chance(?) 3SG-face-LOC  
They are mashing in front of him.

3SG-pull-ARR1 JIITA-REP-3PL caterpillar-large  
On arrival he pulls the giant caterpillars.

155. Sa-tányu jíį ri-nchá, 'Ti ti ti ti ti,'  
3SG-mill JIITA 3PL-upon SW SW SW SW  
He mills on top of them 'ti ti ti ti!'

156. jąamiy juru-déé-ju.  
person(?) powder-little-for  
until they are fine powder.

157. Sa-dūų jíį ri-irű, 'juus'.  
3SG-blow JIITA 3PL-powder SW  
He blows away their powder 'juus!' 

158. 'Dá-ntyá-műų dárya jirų-echa-sara-nuu-dyęų.'  
thus-same-NEG thus 2pl-be-HABIT-CONT-DAY  
'You will never be the same again!'
159. Sa-taγrya jiji rumu-si-ntiy.
    3SG-return JIITA there-from-REP
    He returns from there again.

Scene XII: The Twins Warning 4

    there meet-ARR2-o'land-PROX1 3DL-REP
    There the two meet (him) on arrival again.

161. Ri-jiγuva-γnumaa vairiy.
    3PL-arrive:late-now then
    They arrive late.

162. 'Jiyu-niy vurya-qa maaγy, Mokay?'
    here-NIY 1PLINC-IRR sleep Mokayu
    'Here we must sleep, Mokay.'

163. 'Joo.'
    yes
    'OK.'

164. Ri-meey jiida jasiy.
    3PL-sleep JIITA there
    They sleep there.

165. Nuγora-nuμaa jiji sa-niy jutay si-iva,
    night-now JIITA 3SG-MALF say 3SG-DAT
    In the night he says to him,

166. 'Jatiy ya-arupan-ta-naada ji-fu vaγtu-ruγy.
    careful 2SG-bother-TRNS-3DL DEMO-CL:ANIM woman-DL
    'Be careful if you bother this woman.'

167. Ra-raγcha-niι ya-αpι.
    INAN-cut:off-3SG 2SG-penis
    She will cut off your penis.

    3DL-vagina IRR cut:off-3SG
    Her vagina will cut it off.'

169. 'Siγteenu?'
    really?
    'Really?'

170. 'Joo.' 'Ya-α-tiyi jaryapan-ta-ruγ-μii.
    yes 2SG-IRR-COND bother-TRNS-POT-3SG
    'Yes. If you try to bother her.'
171. Ji-ńu-dáy ráñiy cha naana-asatũ-nta,
    DEMO-CL:ANIM-DAY AUX:MALF be 3DL-niece-seems
The one that is her niece,

172. nií-niy jiį ya-a jarúpan-ta.
    3SG:PRO-NIY JIITA 2SG-IRR bother-TRNS
HER you can bother.

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Scene XIII: The Vicious Woman
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173. Sa-ya jiįta naadi-imú, núpora-numáá.
    3SG-go JIITA 3DL-LOC night-now
He goes in to where she is at night.

    INAN-dawn-POT-almost
It is about to dawn.

175. 'Néé váńay juvá-chį da-ryény.
    not possible do/make-NOM DAY-1SG
'Nobody can make me (says the woman).

176. Rą-ą-račha-niį yá-ápi.'
    1SG-IRR cut:off-3SG 2SG-penis
I will cut off your penis.'

177. Sa-tuvčách-tya naadi-imú.
    3SG-hear-NEG 3DL-LOC
He doesn't pay any attention.

178. Si-iváy vári-ńaadá.
    3SG-do/make then-3DL
He makes her.

179. Rá-tamu-myáá jási-ńiį, 'tiį'.
    INAN-squeeze-PERF there-3SG SW
It squeezes him there, 'tín,'

180. Rá-ąsaacha-numáá.
    INAN-dawn-now
It dawns.

181. 'Tiį'. Núùti-chi-tya są-a supáta?
    NEG how-from-NEG 3SG-IRR extract
How can he get it out?

    strongly-NEG INAN-squeeze-DAY-3SG
It doesn't squeeze him strongly anymore.

301
183. Parichéy sù-uta naádi-iva,
finally 3SG-say 3DL-DAT
Finally he says to her,

184. 'Jadýií-tya-ra. Chiýrá sùu ra-ápi-rúuva-mú?'  
wait-TRNS(?)-INAN(?) who sting 1SG-penis-base-LOC  
'Wait, who is stinging me at the root of my penis?'

3DL-vagina-hair-towards-onto 3SG-MALF grab-PROX2-REP  
He grabs her pubic hair.

186. Tìítajú rootye-chi-nt-tyéé-níi, 'ròq'.  
all break:loose-DEP-REP-INTS-3SG SW  
He yanks it all out 'ron!'

--------------------------------- Climax --------------------------------

187. Mùúy maasi-tyéé-níi.  
there exit-INTS-3SG  
There he escapes.

3SG-weave-in:passing JIITA 4-face-middle-for-REP-INAN  
He weaves it in passing to put on his forehead again.

---------------------------------------- Scene XIV: Conclusion: The Twins' Surprise ----------------------------------------

189. Múú-ñumaa jumúsá-jo-mú naada-maasa  
there-now descend-NOM-LOC 3DL-sit

          sà-ąjií-ju-dáy.  
3SG-in:front-for-DAY  
There in the port the two sit waiting for him.

190. Naada-dýrey jįjità-ntí-ñíi.  
3DL-greet JIITA-REP-3SG  
They greet him again,

191. 'Jįjį, rá-numaa-naa-tée jí-jee-yásí-tyéé  
SW INAN-now-wonder-INTS 2SG-enter-PROX1-INTS

naádi-imú jí-ñu vátu-rú-tyéé-ntíy rá?  
3DL-LOC DEMO-CL:ANIM woman-w/children-INTS-REP EXCL  
'Jiin! What? Have you gone in to that woman also?'

192. 'Jóó.'  
yes  
'Yes.'

302
193. 'Táá-ju-naa-muy vánay víchéén-chítée
what-for-wonder-NEG able harm-NOM-INTS

ji-ficha-tée, táá-ju?'
2SG-be-INTS what-for
'How is it that nobody can harm you, how?'
Footnotes to Appendix 1

1. The suffix -diiy, here glossed ANTIC for 'anticipation', virtually always cooccurs with the irrealis auxiliary and seems to imply that the result of the proposed action is unknown. There is always a shading of doubt to clauses with -diiy, though its precise meaning is still to be determined.

2. The form -jajijju is a post position that normally implies location somewhere in the path of its object, e.g.

   there-NIY 2sg-wait Iquitos-loc 1sg-in:front
   'There you will wait for me in Iquitos.'

Here the object of the post position is the speaker, and the sentence might be rendered 'there you will wait in Iquitos in my path,' or 'towards which I am headed'. In KT26 and KT27, however, the implication is that protection is provided for the object of -jajijju. The commonality here is hard to capture, though there is some intuitive reality to it. In other words -jajijju implies location 'in front of' in the sense of blocking, or barricading.
The stem sūtav is used as a verb in sentences 26, 27, 28, 29, 30 and 32 to mean 'to build shelter'. In sentences 39, 42, 44 and 45, however, the same stem is used as a noun to mean 'shelter.'

3. This version of the Kneebite Twins story is unusually rich in the kinds of negation strategies used, and the uses to which those negation strategies are put. The negative tiiv in sentence 63 means 'unsuccessful attempt'. It is used as an interjection, for example, when one is trying to start a recalcitrant outboard motor. Also, it can sometimes be freely translated as 'I don’t know', as it is the usual response to a question for which the addressee does not have the answer. In this context, the addressee might be construed as saying something like 'that was an unsuccessful attempt to get that information.'

The meaning of the suffix -vaa in sentence 63 is still under investigation. It often occurs in negative sentences, though it never occurs without some other indication of negation in the sentence.

Negative markers, of various sorts, are often used in rhetorical questions, and for other 'rhetorical' effects. The form tama 'never' or 'impossible' combined with the enclitic -ta marks sentence 60 as a rhetorical question. The enclitic -nīta (possibly a polymorphemic form -nī +
-ta 'neg') in sentences 15 and 16 essentially does the same thing. In clause 95 the negative née plus the irrealis auxiliary is used to impart a sense of boastful certainty.

4. In this sentence the morphological breakdown is provided for the word supatéäsíy so as to make explicit the presence of the detransitivizing -y suffix. The only effect this suffix has on the surface form is the vowel éé -- without the suffix the form would be supatáäsíy, and would mean 'extracted' or 'caused to emerge' (see, e.g., clause 181).

5. In sentence 125 no source locative is expressed, so no sense of change in scene is imparted. Otherwise, this sentence is exactly parallel to sentence 91 where $S_0$ coding is used along with a locative expression explicitly marking a change in scene.
Appendix 2:

10.

The First Squirrel (FSQ)

Manungo Díaz

This text represents one episode of a larger Yagua myth entitled 'Little Baldy' in Powlison (1969). This particular version was recorded in 1980 as a self-contained story. Another version of the same story appears in English translation in appendix 3 of this thesis, clauses 258 to 336. The storyteller, Manungo Díaz, is the traditional leader of a group of about 60 Yaguas who moved from Cahocuma, downriver from Pebas, to Urco Miraño on the Napo River (see figure 1) in 1974. Members of this group speak a dialect which I classify with the 'downriver' dialects, though it is not as divergent from the upriver dialect (as represented by Laureano Mozombite, the composer of the Kneebite Twins tale) as are the dialects spoken around Caballococha.

The circumstances surrounding the telling of this tale were not the most natural, and perhaps for this reason the tale itself differs in some significant respects from other versions of this episode of the Little Baldy epic. The following table lists the factors I am
aware of that diverge from the natural setting for
tale-telling in the Yagua culture:

<table>
<thead>
<tr>
<th>Normal</th>
<th>Actual for FS text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time:</strong></td>
<td><strong>Night</strong></td>
</tr>
<tr>
<td><strong>Audience:</strong></td>
<td><strong>Afternoon</strong></td>
</tr>
<tr>
<td>Native speakers children</td>
<td>One adult native speaker and the investigator</td>
</tr>
<tr>
<td></td>
<td>(a non-native adult)</td>
</tr>
<tr>
<td><strong>Occasion:</strong></td>
<td><strong>Party</strong></td>
</tr>
<tr>
<td><strong>Purpose:</strong></td>
<td><strong>No special occasion</strong></td>
</tr>
<tr>
<td>Entertainment</td>
<td>To fulfill a request</td>
</tr>
<tr>
<td>Instruction</td>
<td>on the part of the investigator.</td>
</tr>
<tr>
<td>Socialization</td>
<td>To be neighborly</td>
</tr>
<tr>
<td></td>
<td>Instruction(?)</td>
</tr>
<tr>
<td></td>
<td>Entertainment(?)</td>
</tr>
<tr>
<td><strong>Equipment:</strong></td>
<td><strong>None</strong></td>
</tr>
<tr>
<td></td>
<td>Small cassette recorder</td>
</tr>
<tr>
<td></td>
<td>Tie clip microphone attached to storyteller's</td>
</tr>
<tr>
<td></td>
<td>shirt</td>
</tr>
</tbody>
</table>

The thematic structure of this text is not as 
coherent as that of the other texts appearing in these 
appendices, and therefore the text does not provide the 
best illustration of some of the more interesting 
features of Yagua discourse structure. In particular, 
since this story is only part of a longer epic, the 
storyteller doesn't quite know where to begin. He begins 
in clause 1 describing how the First Deer was tricked by 
the First Squirrel into crossing a stream on the back of a 
boa. In clause 3 an allusion is made back to the previous 
episode, as though the composer felt he had to fill in 
some missing information. The Squirrel's deception is
described in clauses 4 through 21. Then the composer feels it necessary to fill in some more background material, and the deception scene is recapitulated beginning in clause 29. This flashback and recapitulation is not a usual feature of Yagua discourse structure. Furthermore, the actual plot of this version of the tale differs in one significant respect from other versions, e.g. those described in Powlison (1969). For most of the present version it is the First Toucan that is swallowed by the boa, and the Toucan's brother cries in mourning, while in other versions the Toucan's brother is swallowed by the boa while the Toucan cries in mourning. This is a crucial distinction as the Toucan's brother is in fact a human being, and not a toucan at all. It is central to the plot of the larger epic that the brother (who is Little Baldy) is swallowed, while the Toucan mourns, and in fact the composer of this version is confused at several points. For instance in clause 3 he correctly says that the boa had earlier swallowed the Toucan's brother, while in clause 64 he clearly indicates that he imagines the First Toucan himself to be inside the boa. Other native speakers who have listened to and read this text have commented on this discrepancy.

Because of the somewhat unnatural circumstances for the recording of this story, and the obvious problems the speaker had in composing it, the value of this text for
ethnographic and folkloric analysis is limited. As a source of initial linguistic data, and as an example of a downriver dialect, however, the text is fundamentally sound. There are two consistent dialect differences between this text and the Kneebite Twins tale (appendix 1). First, Díaz fairly consistently uses the sequence anu in place of the upriver ada. This difference is apparent in the forms for the 3DL prefixes and enclitics (naada / naanu) and in the PAST3 and participle suffix (jada / janu). Second, there is less evidence for the sound [e] as a separate phoneme in the downriver dialect, as it is much less common outside of the environments where it can be shown to arise from underlying /a/. So, for example, the form of the diminutive suffix in the upriver dialect is -dee, whereas for the downriver dialects it is -daa. Sentence FS75 illustrates the diminutive in an environment where aa becomes ee. The same sentence also illustrates the postposition -nabaa, which is -nabee in the upriver dialects. There are several other differences in lexical items, and rhetorical usages that the astute reader may notice. However, since a detailed dialect comparison has not as yet been conducted it is difficult to say whether these are true dialect differences or simply features of the individual styles of the two story-tellers.

koodiy təqarit.
boa long:ago
Long ago the first deer forded upon a boa.

squirrel first-NOM:ANIM deceive-TRNS-3SG  
The first squirrel deceived him.

3. Nūuvə tääryiy sa-jqot-a-anu ramuchó-ónu  
toucan brother 3SG-begin-FAST3 swallow-PART
    koodiy munatyi-ı.  
    boa first-NOM:ANIM  
    Beforehand the boa had swallowed Toucan’s brother.

4. Sa-kivüü-chu jiţi ji-šu mūkatyu-ni.  
   3SG-deceive-TRNS JIITA DEMO-ANIM squirrel-3SG  
   This squirrel deceived him:

5. 'Jii-siy vurya-a ramūtiy.  
   here-from 1PLINC-IRR ford  
   'From here we will ford.'

   here-from 1SG-ford-HABIT  
   From here I always ford.

7. Vurya-a rāgy.'  
   1PLINC-IRR jump  
   Let's jump.'

   3DL-jump JIITA there-from  
   They jump from there.

   3SG-jump JIITA squirrel first-NOM:ANIM 3SG-front-from  
   The first squirrel jumps before him.

10. 'Yi-nūuy rä-a rā-kyu.'  
    2SG-look 1SG-IRR jump-EVID  
    'You see that I can jump.'

11. Sa-niy suvüi-nt-tyée ji-šu munatya  
    3SG-MALE afraid-REF-INTS DEMO-ANIM first

    su-umu-tqasá,  
    3SG-behind-right  
    He is afraid behind the first one,
12. jà-tiy sa-rà-ñìí.
    DEMO-REL 3SG-jump-3SG
    the one that makes him jump.

    1SG-IRR fall-might here-DAY snake-inside
    'I might fall inside a boa.'

    boa 3SG-IRR might:be-DAY
    It might be a boa.

15. Jìnu-ní-vìiy rà-nichà-vàá?
    log-NIY-QP INAN-be-NEG
    Is it not a log?

    boa-NEG 1SG-see 3SG-DAT-DAY
    I see that it's not a boa.

17. Née koodìy sa-ñìicha.'
    NEG boa 3SG-be
    He's not a boa.'

18. 'Jás-chì-ñìiy yà-à ràáy.'
    there-from-NIY 2SG-IRR jump
    'Jump from there.'

    3SG-MALF jump-PAST3 JIITA
    He jumped (to his detriment).

20. Sa-jù-jì-yanu tììtááy sa-vììmú koodìy 'kanekiìì,
    3SG-fall-PAST3 complete 3SG-inside boa SW
    jìììì'
    SW
    He fell right inside the boa, 'kanekiìì, jìììì'.

21. Sa-maachóq rumú.
    3SG-remain there
    There he remains.

22. Sa-ràá-tìi-yàq-sà-ñìì
    jììta sa-tàáryìì
    3SG-jump-IT-DIST-upriver-PAST3 JIITA 3SG-brother
    yì-va-siy nuuvá.
    4-DAT-from toucan
    His brother went jumping all over from where the toucan was.
23. Jásīy sa-suúy si-iyú 'kua, kua, kua',
   there 3SG-call 3SG-above SW SW SW
   There he calls above him 'kua, kua, kua'.

24. sa-núúvaa-yamu-mú.
   3SG-mourn-PART-LOC
   in his mourning.

   3SG-brother-DAT-from 4-mourn
   For his brother he mourns.

   some-day-LOC-for 3SG-call-PROX1 morning-for
   From day to day he calls.

27. Sa-tááryįį-ija-siy jí-ľuuvay.
   3SG-brother-DAT-from 4-mourn
   For his brother he mourns.

   NEG brother-NOM:having anymore.
   He didn't have a brother anymore.

29. Si-itće̱-janú jánariy munátyįį-
   3SG-arrive:there-PAST3 deer first-NOM:ANIM
       si-imu-ntiy
   3SG-LOC-REP
   First Deer comes to him again,

29b. jásí-dye-ntiy múkaytu-mu-ntiy.
   there-DAY-REP squirrel-LOC-REP
   there again, to Squirrel again.

   3SG-now JIITA 3SG-deceive-TRNS-REP
   This one he deceives again.

31. 'Jii-siy vuryą-ą ramútiy.
   here-from 1PLINC-IRR ford
   'From here we will ford.

   here-INAN 1PLINC-ford-PART
   Here is our fording place.

33. Néé nikirąy ramute-ępʊ jiyų.
   NEG bad ford-PART here
   It's not a bad fording place here.
34. Vánoodyí ráq-ryá-vay,  
quick jump-NOM-being  
Jumping quickly,

35. sa-ni'y kivũį-chu-niį jánariy munátyį-į.  
3SG-MALF deceive-TRNS-3SG deer first-NOM:ANIM  
he deceives First Deer.

36. 'Jii-si'y vurya-ą ráq-tyée.  
here-from 1PLINC-IRR jump-INTS  
'From here we will jump.

37. Yi-tá-charatá  
2SG-say-might  
You might say (or think)

38. rípya ráq-rya-jíy?'  
far jump-NOM-2SG  
you are a far jumper?'

39. Múkatyu jọtá  
squirrel begin  
Squirrel begins

40. ramútye-enú sà-ajii-siy.  
ford-PART 3SG-front-from  
to ford before him.

41. Naanu-ramútiy jįtə.  
3DL-ford JIITA  
They (2) ford.

42. Sa-sii-chiy sà-ajii-siy, múuy, koodiy riínu-va.  
3SG-run-DEP 3SG-front-from there boa back-DAT  
He runs before him on the boa's back.

43. Sa-ráq-kuuvá sú-ųtunuvũũ rámurya-mu-siy.  
3SG-jump(-?) 3SG-neck base-LOC-from  
He jumps from the base of his neck

44. Múuy rida-mu-siy niin-tąsá sa-ráý.  
there ?-LOC-from tree-middle 3SG-jump  
From there right onto a tree he jumps.

45. Sa-naatyũ jįtə-niį jánariy yi-siỹu.  
3SG-call JIITA-3SG deer 4-after  
He calls Deer after him.

46. 'Née yą-ą suvũũ.'  
NEG 2SG-IRR be:afraid  
'Don't be afraid.'
47. Sa-niy rupíy jį́ta jáñariy sů-usíjyu koodíy
   3SG-MALF walk JIITA deer 3SG-behind boa
   rińu-va.
   back-DAT
   The deer walks after him on the boa's back.

    there 3SG-go
    There he goes.

49. Sa-niy jutáy si-íva,
    3SG-MALF say 3SG-DAT
    He says to him,

50. 'Jás-chi-niy ya-ą rą́y.
    there-from-NIY 2SG-IRR jump
    'Jump from there.'

51. Sa-jų́-daa-tų́u-siy yą-ą rą-ąy-siy,
    3SG-mouth-little-point-from 2SG-IRR jump-PROX1
    From the tip of his mouth jump,

52. jį́ryá-tiy sů-ųtunuvų́l jásiy.
    DEMO-REL 3SG-neck there
    that which is his neck there.

53. Jás-chi-niy ya-ą rą́y.'
    there-from-NIY 2SG-IRR jump
    Jump from there.'

54. Sa-niy rą́y-yanų jį́ta jáñariy munátyį-į-dáy.
    3SG-MALF jump-PAST3 JIITA deer first-NOM-DAY
    First Deer jumped (to his detriment).

55. Sa-jų́-yanų sa-vái mu-ntiy 'kanekii, mıíi'.
    3SG-fall-PAST3 3SG-inside-REP SW SW
    He fell inside him also 'kanekii, mıíi'.

56. Sa-maachćoŋ rumų sa-vái mú.
    3SG-remain there 3SG-inside
    He remains inside him.

57. Tːą́ryı́ sa-maachćoŋ-janų sa-vái mú,
    long:while 3SG-remain-PAST3 3SG-inside
    He remains inside him for a long while,

58. tį́kii jąrimunį tą́savuurrá sará-jų
    one month half extent-for
    for an entire half a month.
3SG-ascend-TRNS-PAST3 JIITA shore-LOC 3DL
He ascends to the shore with them.

60. Tiṭchaa-nchá koodiy.
sand/beach-upon boa
The boa is on a beach.

61. Sa-duutú-tya jī-tiryo náavá-ju, 4-loc 3SG-belly-INST 4-loc upward-for
He lies with his belly up.

DEMO-REL 3DL-walk-DIST deer-DL 3SG-inside
the one that had the deer and company walking around
inside him

63. Naanu-nichá-ju jī-tiryo sa-viimū,
3DL-be-for 4-loc 3SG-inside
They (2) were there lying inside him,

64. nuuvu munátįį-į múuy sā-arįy.
toucan first-NOM there 3SG-underneath
the first toucan was underneath him.

65. Naanu-tįųcho-ony sa-viimū-yu,
3DL-converse-PAST3 3SG-inside-REFL
They (2) conversed with each other inside him,

66. 'Muutyąotu ją́nnu vurya-ą jidyiy vuryi-imū-ju.
pirahna tooth 1PLINC-IRR grab 1PLINC-LOC-for
'Let's grab us a pirahna tooth.

67. Rá-ta-niiy vurya-ą jini-si-tiyiý sa-páday jáy.'
INAN-INST-NIY 1PLINC slice-IT 3SG-stomach skin
With it we will slice the skin of his stomach.'

68. Vānukii jīnta naanu-niy vi-dyéy.
heat radiate 3DL-upon QUEST-DAY
They feel heat, huh?

69. 'Sińu-mu-dyéta vyy-vyi-charatáá,
shore-LOC-maybe 1PLINC-QP-mighthbe
'Maybe we're on shore,

70. núntuy vānukii-n tá jīnta vyy-niy.'
how heat-seem radiate 1PLINC-upon
since we feel such heat.'

71. Jī̄īi-daa jīnta naanu-niy.
sun-DIM radiate 3DL-upon
The sun shown upon them.
72. Parchéé naanu-jaachipi-yáá,
   finally 3DL-think-DST
Finally they think,

73. naanu-túúcho-oni-íyu,
   3DL-converse-PART-REFL
they converse with each other,

74. 'Jii-si-dyéy vurya-á jinisíy sa-kiíni
   here-from-DAY 1FLING-IRR slice 3SG-anus
      rámurya-sáárqá-síy.'
   end-across(?)-from
   'From here let's slice across from the end of
   his anus.'

75. Naani-inise-enu jííta tápi-áyée-nubaa-síy.
   3DL-slice-PAST3 JIITA slowly-DIM-within-from
They sliced slowly from inside.

76. Sa-sikítya-jáá koodíy váriy 'tu tu tu'.
   3SG-twitch-ITM boa then SW SW SW
   The boa twitches repeatedly 'tu tu tu'.

77. Naani-inisiy sa-páday jááy.
   3DL-slice 3SG-stomach skin
They slice his stomach skin.

78. Sa-páru váriy.
   3SG-stop:work then
Then he stops (slicing).

   while-after 3DL-stop:work first-REP
After a while they stop (slicing) again.

80. Sú-únsíy jííta-ntiy, 'saaaaaaaay'.
   3SG-slice JIITA-REF SW
He slices again 'saaaaaaaay'.

81. 'Núútya rá-niíy viíta-ryúuy-tyéé.'
   how INAN-MALF break:open-POT-INTS
   'It's about to break through.'

82. Daryajúuyu jinisíy-enu-mu-síy sa-sirí nuuvá
   four slice-PART-LOC-from 3SG-cut(?) toucan
   sú-úbi-iva-íy.
   3SG-in:place-DAT-for
Slicing four times, the toucan takes turns with him.
83. Níi-numaa jííta jinise-enů sущ-уби-ива-ju
3SG-now JIITA slice-PART 3SG-in:place-DAT-for
vári-nti-dyéy.
then-REP-DAY
Now HE slices in place of him again.

84. Sущ-утай си-ива,
3SG-say 3SG-DAT
He says to him,

85. 'Jáaryi-pyu-déé y qc-jinisi-tyéé.'
much-hard-little 2SG-IRR slice-INTS
'Cut a little harder!'

86. Sущ-унсе-ену jííta 'saaaaaay'.
3SG-slice-PAST3 JIITA S.W.
He sliced 'saaaaaay'.

87. 'Sа-qa-numaa mус-tа jа-му-вуку.'
3SG-IRR-now descend-TRNS water-LOC-IPLINC
'He's going to carry us back into the water!'

DEMO-from-for-DAY 3DL-puncture first
This size hole they puncture first (gesture).

89. Sущ-уну́у jííta.
3SG-look JIITA
He looks.

90. 'Siину-mu-numaа вVu-никха.
shore-LOC-now 1PLINC-be
'We're now on the shore.

91. Nее jаа-jariy вVu-никха nuu-dáy.
NEG water-under 1PLINC-be anymore
'We're not under water anymore.'

92. Sущ-утay сi-iva-ntiý,
3SG-say 3SG-DAT
He says to him also,

93. 'Juváy, jiy rã jinisíy.'
do(?) 2SG:PRO IRR slice
'Now, YOU are going to slice.'

94. Sущ-унсе-ену jííta-ntiý 'saaaaaay'.
3SG-slice JIITA-REP SW
He sliced again 'saaaaaay'.

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95. ánrajũy jomutũ sáransarã su-šne-enũ tikájũ
   two hand measure 3SG-slice-PAST3 all
   naan-sarajũ.
   3DL-extent
   He sliced two hand lengths, enough for both of them.

96. Su-šne-enũ-ntiy 'saaaaay'.
   3SG-slice-PAST3-REP SW
   He sliced again 'saaaaay'.

   3DL-measure-ITM-directly then
   So they keep on measuring.

98. Núútya tikájũ-numáá, núúrya naanu-mutũũ sarajũ.
   how all-now like this 3DL-shoulder extent
   Up until the size of their shoulders (gesture).

99. Pachée su-štay jánariy si-iva,
   finally 3SG-say deer 3SG-DAT
   Finally Deer says to him,

100. 'Váran-táátiy ji-myaa-sií rí-ísi-jyũ.
    quickly-wiggling(?) 2DL-exit 1SG-behind-towards
    'You quickly exit behind me.'

101. Née rã-ã junũuíchiy.
    NEG 1SG-IRR wait
    I'm not going to wait.

    NEG 1SG-IRR run-exit 2SG-say
    You know I'm going to rush out.¹

103. Jadyiiy, yĩ-inũú-jës-kyũ.'
    wait 2SG-see-PROX1-EVID
    Wait, you'll see.'

104. Sa-ráá-yanũ sa-viímù-sií.
    3SG-jump-PAST3 3SG-inside-from
    He jumped out from inside him.

105. Sa-maa-senũ 'nóóiiί'.
    3SG-exit-PAST3 SW
    He exited 'nóóiiί'.

106. Múũy sii-myaa-sií-tyéé-níí nuuvã munátyí-í
    there run-exit-INTS-3SG toucan first-NOM:ANIM
su-usiyu-dyey 'miili'.
3SG-behind-DAY SW
There the first toucan rushes out behind him, 'miili'.

3DL-run-DEP sand/beach-DAT
They run away on the beach.

3DL-feel-all:over INAN-DAT 4-head
They feel all over their heads.

3SG-fall JJITA boa 3DL-place-DAT-from then there
So the boa fell back where they (2) had come from.

INAN-spew-liquid-all:over there 3SG-belly-inside-from
Rotten liquid spews out of his belly.

111. Su-utaa-aa njiita ji-nuu nuuvu si-iva.
3SG-say-PAST3 JJITA DEMO-CL:ANIM toucan 3SG-DAT
This Toucan said to him,

112. 'Nuutyu-day vurya-a cha-taa?
how-DAY IPLINC-IRR be/live-INTS
'How are we going to live?'

113. Mitya runya-kii naani-inuu-tya-numayaa-ra
just dark-CF:large 3DL-look-TRNS-all:over-INAN

jii-niiisy.
4-eye
Just darkness they see with their eyes,

114. jii-tyi su-usyuubii-poo jiiay
DEMO-REL 3SG-stomach:contents-rotten enter

naan-niiisi-myuu.
3DL-eye-LOC
that his rotten stomach contents had gotten into.

115. Si-iriyaay janaarii munatyiili ri-iva yi-inoo.
3SG-feel deer first-NOM:ANIM INAN-DAT 4-head
The First Deer felt his own head.

116. 'Raa-tadiita-my-aa ri-inoo-day.
INAN-peal-DETRNS-PERF 1SG-DAY
'Hy head is pealed.
117. Néé jínoo jástýiy nuudáý.
NEG head hair anymore
There's no hair anymore!'  

118. Si-iriyáag nuuvá munátyi-ț iri-iva
3SG-feel toucan first-NOM:ANIM INAN
yí-noo-nti-dyéy
4-head-REP-DAY
First Toucan feels his own head also.  

119. 'Darya-ntíy ri-inoo-dáý.
thus-REP 1SG-head-DAY
'My head is the same.  

120. Núútyu vurya-ą cha-dáý?'
how 1PLINC-IRR be-DAY
How are we going to live?  

121. Néé varáánu naani-inráá-yu.
NEG quickly 3DL-separate-REFL
They (2) don't quickly separate from each other.  

3DL-go JIIITA there INAN-fork-DAY
They (2) go there to the fork of a stream.  

123. Múuy naanu-ya nurumu-daa-mú.
there 3DL-go stream-DIM-LOC
There they go to the little stream.  

124. 'Vurya-ą janááy.
1PLINC-IRR bathe
'Let's bathe.  

125. Vurya-ą suuta vuryí-iva-si-rya su-uvúudíí.'
1PLINC-IRR wash 1PLINC-DAT-from-INAN 3SG-s':contents
Let's wash his stomach contents off of us.'  

there 3DL-bathe 3DL-bathe 3DL-bathe
There they bathe and bathe and bathe.  

127. Naan-tuváachú jíjta jás-chiy,
3DL-hear JIIITA there-from
Then they hear from there,  

128. 'Yi-n-tyée sa-níí-sírá ji-tyééryii-dáý.
here(?)-NIY-INTS 3SG-come-(?) 2DL-brother-DAY
'Here comes your brother.'
129. Níí-n-tyéé súŋ-tyéé jiyu-dáy, nuuvá.'
3SG:PRO-NIY-INTS call-INTS here-DAY toucan
HE (is the one who) sings here, Toucan.'

130. Súŋ-êtay sí-íva,
3SG-say 3SG-DAT
He says to him,

131. 'Rumu-niy yá-á jiya si-imú ji-tyééryįį.
there-NIY 2SG-IRR go 3SG-LOC 2SG-brother.
THERE you will go to your brother.

132. Múúy rą-ą jiya-dáy.
There 1SG-IRR go-DAY
I am going there.

133. Múúy rą-ą jiya-sara-dáy.'
there 1SG-IRR go-HABIT-DAY
There I will always go.'

134. Sa-ya-anu jįįta ruumú.
3SG-go-PAST3 JIITA from:there
He went from there.
Footnote to appendix 2

1. This is a rhetorical use of the negative, which implies absolute certainty of the truth of the proposition. This device always appears with either the form *vitáv* 'you say', *vinůúv* 'you see' or sometimes *jidyéétva* 'you know.'
Appendix 3:

The One-eyed Warriors (OW)

Laureano Mozombite

The story which I have titled 'the One-eyed Warriors' is the first 336 clauses of a 720 clause story entitled 'Little Baldy' by Powlison (1969). This is a story about a band of mythical warriors out to find and destroy 'the enemies' (munuñūmiy, also translated 'savages', or 'non-Yagua indians'). Their first encounter is with a giant toad, who is really a malevolent witchdoctor of sorts. All but two of the band club the toad as they pass him. Those that club the toad lose one of their eyes during the night, but the two that don't club the toad retain both eyes. Then the band tries in vain to take revenge on the toad. Finally, the one-eyed warriors transform themselves into various animals of the jungle and parade off the scene. The rest of the story deals with the adventures of the two who escape the first encounter with toad. This text exhibits linear locational structure (T. Payne, 1984b) especially beginning with scene IV.

This text was recorded by Paul Powlison in 1960. The retranslation that appears here is by T. Payne and

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Mamerto Macahuachi, a native speaker of the upper river dialect of Yagua represented in the text.

Since this text forms part of the corpus for the quantitative study of $S_o$ coding on verbs described in chapter 6, I have included the Yagua transcriptions of all the verbal $S_o$ clauses that occur in the portion of the text that appears in this appendix. However, due to space limitations I have included only the English translation for the excerpt as a whole. For purposes of illustrating the use of $S_o$ clauses to develop the thematic structure of the text, I judge that the English clause-by-clause translation is sufficient.

the sleep-on:arrival:2-o'land-there-3PL
'There they sleep on arrival.'

SW circle-o'land-there-3PL there-around-DAY-REP
'They circle in the same place again.'

circle-d'river-from-INTS-REP-3PL there-around-DAY-REP
'They circle from downriver at the same place again.'

dissappear-INTS make:noise-o'land-INTS-3SG
'They disappear, and make noise going overland.'

258. Müúy jítá-ási-ńíí. 
there alight-there-3SG
'There he alights.'

263. Müúy jítá-ási-ńíí. 
there alight-there-3SG
'There he alights.'

269. Müúy jítá-ásiy jáá-mu ruda-myu-si-ńíí. 
there alight-there water-LOC branch-LOC-from-3SG
'There he alights on the other side of the stream.
from his branch.' (i.e. his original perch)

exit-up-INTS 3SG-after-towards-REP-DAY-3SG
'He exits following after him also.'

there run-exit-INTS-3SG
'There he escapes.'

The One-eyed Warriors: English translation

1. This is how the ancestors went as warriors in search of the savages.
2. Yes, they went.
3. 'Savages we will kill yet.'

4. Scene I: The Toad
5. They see on arrival a toad,
6. a huge toad lying in the middle of the trail.
7. One by one they wound him with their clubs, another also, another also.
8. So right there he swells up.
9. Another also.
10. So he swells up.
11. Another also, another also, another also, another also.
12. Just two remain
13. that don't wound him in passing.
14. They just pass by at a distance.
15. When they have passed by the toad one by one,
Scene II: The Warriors lose their eyes

15. _there on arrival they sleep._

16. 'Here we will sleep.'

17. They each make their own shelter.

18. In the middle of the night they awaken.

19. Too bad! Now they are missing an eye,
   all one-eyes now.

20. He (Toad) had emptied the eye-sockets of all of them.

21. One speaks to his companion,

22. 'Are you the same?'

23. 'Why?'

24. 'Do you think that I still have eyes?

25. I have an eye on one side only now!'

26. 'Oh, the same!' another also,

27. 'The same also!' another also,

28. 'I'm the same too!' another also,

29. 'The same also am I!' another also,

30. 'I'm the same too!' another also,

31. 'I'm the same too!' another also,

32. 'I'm the same too!'

33. He had emptied the eye sockets of all of them.

34. 'Too bad!'

35. 'Why did that cursed toad pick out our eyes also?'

36. It dawns.

37. They go in search of him.
Scene III: The Warrior's thwarted revenge

38. 'We're going to kill him!
39. We're going to kill!
40. Because yesterday he emptied our eye sockets.'

41. They go around him, in vain.
42. His little birds see them.
43. 'puñi puñi puñi puñi. One-eyed warriors!

One-eyed warriors!'  
44. 'juvi' So they flee again.

45. From there they circle again. (*)
46. In vain, already the little birds had seen them again.
47. 'Warriors! One-eyed warriors! One-eyed warriors!'  
48. So they flee again.

49. From there they circle again. (*)
50. In vain, they've already seen them again.
51. They flee again.

52. Finally they return.
53. 'We can't kill anybody.'
54. They arrive at their shelters again.
55. There they think,
56. 'How are we going to do it?
57. Finally they get a Bejuco vine, a long piece.
58. A long piece they get.
59. They look for a charapilla nut to be their claws.
60. They look for Chambira palm fibers (?) to be their
    body hair.
61. From there they look for Muena berries
62. and put them in place of their (missing) eyes.
63. The two are just observing them (the two that didn't
    club the frog and therefore didn't lose an eye?).
64. 'What are they going to do, what?'
65. 'Why should they transform themselves?'
66. They grab the Bejuco vine.
67. So they flee.

-------------------------- IIIE ---------------

68. 'Juun!' They circle in the same place again.
69. It (the vine) soon breaks 'royin! Iran!'
70. They go to look for a Hook Casha vine.
71. This is truly a strong vine.
72. They grab this one also.
73. 'Let's try again.'
74. They flee again 'juun!'

-------------------------- IIIF ---------------

75. They circle again at the same place.
76. Circling again at the same place.
77. Circling again at the same place.
78. 'There. Now it is good.'
79. They throw the chambira fibers on their backs to be
their body hair.

80. They say nothing more.
81. 'As what shall I go?'
82. 'Yes.' Another also.
83. 'I will be a Choro monkey.'
84. He goes leaping, no dice.
85. He doesn't knock any over (branches).
86. Finally another scurries up.
87. 'I will be the real Choro.
88. He leaps,
89. he breaks,
90. and goes knocking over dry branches.
91. 'I, truly, will be the Choro.
92. You will be our sentinels below.'
93. Another scurries up.
94. 'I will be the Howler monkey.'
95. He had put his poto around his neck to be his larynx.
96. Another had thrown his rattles also,
97. 'From you we will know when there are savages below,
98. when this bird (figurative or another disguised
    warrior) shouts below us,
99. that which is transformed rattles.'
100. He had thrown also his gourd purse, 'te, ru, ru, ru!'
101. He goes as the Purmero bird.
102. 'From you we will know also,
103. when these Purmeros shout below,
104. there must be savages below.'
105. The howler says to the two that don't transform
106. after he had ascended running into the trees.
107. He had hidden himself well.
108. He says to them,
109. 'Look from there.
110. Am I visible?'
111. They spy from various points.
112. 'You are quite visible!'
113. So he hides himself better.
114. He says to them again,
115. 'Look again (to see) if I am visible.'
116. They look from there again, from there also.
117. 'No. Now you are not visible.
118. Now it is good.
119. So he says,
120. 'Like this the Howler will not be able to be caught
121. when he hides himself in the middle of the thick
        leaves not very near.'
122. The Boar says to them also,
123. 'Take a shot at us, the Boars.'
124. They take a shot there 'pon!
125. 'Ran!' so they scatter.
126. There they reunite again.
127. They arrive again.
128. They speak on arrival,
129. 'Like that you won't be able to kill many boar.
130. Just one you will kill.
131. Once in awhile you'll kill two.
132. They will always scatter themselves when you hunters arrive.'
133. So they go.
134. The collared pecari carries the banner.
135. 'Let's go now!' 
136. They say to their two friends,
137. 'Over there go behind us.
138. Wherever we will go there.'
139. They go.

----------------------------------------------------------
Scene IV: The animal parade
----------------------------------------------------------
140. 'Juun!' One after the other they keep bumping the
branches with their clubs, 'tye, tye, tye'.
141. That is what their call is, the call of collared
pecaris in flight.
142. The boar behind him, the choro behind him, the howler
behind him, the little friars behind him.
143. They disappear overland noisily.
144. Too bad, the two stay behind them all.
145. Finally they go.
Scene V: Toad's sinister hospitality

146. 'Is this the way we came?'

147. Right there they come to the place of the toad again.

148. He is pounding in front of them, 'con, con, con, con!'

149. 'Well what are you doing?'

150. 'I am pounding ungurahui palm.

151. Come into the house and rest.'

152. The toad goes into his house too.

153. He gives them sweet potatoe, one potatoe to one and another potatoe to the other.

154. They eat it.

155. Again, he wants more of the same, his brother also the same.

156. 'I'm going to take a big bite of his piece of sweet potatoe also.'

157. 'Don't touch it!

158. He will bewitch you for doing that.'

159. He doesn't want to pay any attention to him.

160. Finally he gets up,

161. and bites off half of the sweet potatoe,

162. 'Quiyon!' The other screams immediately there, 'Ow!'

163. 'You have bitten my heart!

164. You have made my heart sore!'

165. Says his brother to him,

166. 'I already told you "don't touch it."
167. Too bad, now it's all over for you.
168. Now he has to do something to you for this.'
169. The other one (toad) finishes pounding the
ungurahuis.
170. He offers them some also.
171. 'Do you want to eat pounded ungrahuis also?'
172. The two eat.
173. The toad eats and keeps piling up the sucked seeds.
174. He finishes sucking,
175. and scatters the sucked seeds, 'ran!'
176. 'Chujun! They will always call them ungrahui,
177. even though they are the transformed eyeballs of the
warriors!'
178. 'It's their eyeballs that we've been sucking too!'
179. The two go from there.

Scene VI: Toad's revenge

180. 'Let's go now,
181. because it's late.'
182. 'With what shall we sleep?'
183. They keep looking for a hollow tree.
184. 'let's sleep here in this hollow tree.'
185. They gathered fibers of chambira to put in the
opening against his coming,
186. because now they were wise,
187. 'Well, he might follow us.'
188. It gets dark.
189. He comes in the form of a bat.
190. 'It must be him!'
191. Finally they sleep,
192. but they soon wake up.
193. He had tied his hammock above, the other below.
194. Suddenly his blood fell on him.
195. 'Careful!' 'Chi, chi, chi.'
196. 'You are urinating on me!'
197. He wakes up.
198. 'Don't say I'm urinating!
199. Do you think I still have a leg?'
200. My leg is cut off!'
201. You wished that it was untrue when I said
   "don't touch it".
202. How are you going to walk now, how?'
203. It dawns,
204. and the two of them exit.

Scene VII: The useless crutch
---------------------------------------------------------------------
205. 'How are you going to walk, how?
206. Seeing as you are without a leg now.'
207. He says to him,
208. 'Cut a branch for me.
209. With a little branch I will go hobbling.'
210. He puts his leg then on the end, no dice.
211. They go.
Scene VIII: The disobedient leg

212. On departure he throws away his cut off leg.

213. He looks again.

214. There in front of him is his cut off leg lying again.

215. 'Here now again is my cut off leg, here?'

216. He grabs it again.

217. 'Maybe I should try to stick it in its place.'

218. He tries to insert it in its joint. No dice.

219. He throws it away again going along.

220. They go from there again.

--------- VIIIA -------

221. He sees again.

222. There it is lying again.

223. 'Are you here again?'

224. There by the side of a stream he works it (tries to replace it) again.

225. Finally he throws it in the water, 'tapuun!'

226. 'Juun!' It speaks going.

227. It has transformed itself into an alligator.

228. They go from there again.

--------- Scene IX: The fungus tree -------

229. When the cripple sees on arrival a mass of fungus above,

230. he calls his brother.

231. 'There are lots of lemurs (or night monkeys) here!'
232. 'So where are the lemurs, where?'
233. 'I'm going to collect lots of them.
234. We won't even have to roast them either.'
235. 'I don't see any lemurs.
236. I just see a mass of fungus.'
237. Without paying attention to him,
238. he ascends.
239. He knocks down from there the mass of fungus.
240. 'There it is.'
241. The other didn't realize that
242. he had gone and transformed himself.
243. Finally he says,
244. 'I never want to get down from here, never.
245. Now I am accustomed here.'
246. His brother doesn't answer him.
247. 'Throw me my jungle achiote pouch, and the ball of achiote with it.'
248. He throws him his jungle achiote pouch, and his ball of achiote also.
249. He daubs this to become the base of his tail.
250. There where he daubed with achiote and jungle achiote all over the base of his tail.
251. So he has transformed himself into a toucan.
252. He is now a toucan.
253. He says to him,
254. 'Let's go now.'
255. There you will go right below me.
256. I will go spilling towards you chimicua berries.'
257. He flies.

--- Scene X: The malicious Squirrel ---

258. There he alights.
259. He calls on arrival there also, 'cu, cu, cu, cu!'
260. He speaks to him, 'Is this where you are?'
261. 'Yes, here I am.'
262. He flies from there again.

--- XA ---

263. There he alights.
264. He calls there again.
265. From there he goes along below him.
266. He says to him again, 'Are you now here?'
267. 'Yes. Here I am.'
268. He flies from there again.

--- XB ---

269. There he alights on the other side of the stream from his branch.
270. He calls on arrival there also.
271. The other speaks also.
272. 'So how am I going to cross over?'
273. He goes looking for a tree bridge.

--- XC ---

274. Finally he encounters Squirrel.
275. 'There you can cross on my tree bridge.
276. Right over there is my tree bridge.'
277. From a good distance Squirrel leaps.
278. 'Yuun!' Squirrel does not leap from nearby.
279. He says to him,
280. 'Just from there leap!'  
281. Just from there I always leap.'
282. He doesn't have the courage to try it.
283. Finally he goes way out.
284. He is close to the tip (of the tree bridge)
285. when he jumps 'cadaquin!'
286. There inside a water boa he falls, too bad.  (*)
287. Right there his brother sings.
288. From there he hears from inside the snake.
289. There he sings.
290. Right there he sings.
291. He spends one day there.
292. There he waits for his brother.
293. Finally he quiets down.
294. When he has gone,
295. he tells his wife in passing,
296. 'A snake has swallowed my brother.'
297. Finally the water boa ascends (from the water) with him to dry land.
Scene XI: Inside the water boa

298. 'Ay!' It is very hot now for him.

299. It is not a little time that he has been inside him.

300. Right there was a little deer

301. that had been swallowed first also.

302. It is not just one day that he has been sitting there
     getting bored inside now.

303. Finally something pricks his bottom.

304. 'What is it that is now pricking my bottom?'

305. He grabs it.

306. 'Aha! It's a piranha jaw!'

307. He shows it to the deer.

308. 'A piranha jaw was pricking me in the bottom,
     a piranha jaw.

309. Let's cut with this the skin of his stomach.

310. Didn't you say we are on dry land?'

311. 'Well yes.'

312. He cuts slowly 'diii!'

313. 'Tutu,' it (the stomach?) gives a little twitch.

314. He stops again.

315. He cuts again.

316. It gives a little twitch again.

317. He stops again.

318. He cuts again,

319. until he gets tired.

320. Finally he makes a little hole.
321. He looks (through the hole).
322. 'Yes! We can say we are on firm land.
323. He makes the hole larger, and larger and larger.
324. He measures it every time now.
325. 'Now we fit.'
326. He says to the deer,
327. 'You first are going to exit.'
328. 'OK.'
329. He exits, 'juyin!'
330. He exits following after him also, 'juyin!'
331. There (he) escapes.

Scene XI: On dry land again
332. The water boa falls back into the water 'chuun!'
333. He goes all over the place looking for a stream.
334. 'Where am I going to wash myself?'
335. The deer says to him,
336. 'You have saved us!'
Appendix 4:

The Non-identical Twins Cycle (TC)

From Powlison (1969) and Dorson (1975)

Laureano Mozombite

The following is a retranslation (by Mamerto Macahuachi and T. Payne) of a tale that appears in Yagua in Powlison (1969:176-219), and in English in Dorson (1975:553-6). Again, all translation mistakes in this version are my own responsibility. Like many long tales, this story is a series of episodes, each of which may be told as individual stories. Powlison (1969) provides a detailed description of the various Yagua epic tales, and how the episodes and individual characters intertwine. The overarching theme of this tale is how the world came to be the way it is. Some of the specific topics dealt with in this version are, 1) the significance of the distinction between the Yaguas and the non-Yagua Indians, 2) how the Yagua clans are created, 3) how the Amazon river is created, 4) why life must involve difficult labor, 5) the origins of blowguns and other hunting equipment, 6) how water turtles and land turtles came into being, 7) how Pifayo (guilielma gasipes, a palm fruit) is

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obtained by the Yaguas, and 8) how corn is obtained by the Yaguas.

This tale forms part of the data base for the topic continuity study of chapter 4 of this thesis, and the first 153 clauses form part of the data base for the quantitative study of $S_o$ coding in chapter 6. Although it would be preferable to include the full Yagua transcription of this text, due to space limitations I have limited presentation to the English translation. The English is included in order to help the reader understand something of the thematic structure of Yagua discourse and to locate specific examples from this text cited in the body of the thesis in their discourse contexts. As mentioned above, this text appears in Yagua in Powlison (1969), though in a different orthography than that which is employed in this thesis, and without clause numbering.

1. Yes, Creator created. Creator created long ago.

Scene I: The House

2. The adults drink manioc beer,

3. beer they drink.

4. Her pregnant daughter says to the old woman:

5. 'While you weed the manioc patch, we are going to continue drinking.'

6. You don't drink anything with us.

---------- Transition ----------

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7. She goes.
8. They drink in her absence.

--------------------------------------------------------------------

Scene II: The Manioc Patch: Grandmother worries
--------------------------------------------------------------------
9. After a while, suddenly they are quiet, silent.
10. She listens and listens.
11. 'What could have happened to them again, what?'
12. They aren't laughing, they aren't drumming anymore.
13. It's almost evening.
14. Finally she goes.

--------------------------------------------------------------------

Scene III: The House: Grandmother discovers carnage
--------------------------------------------------------------------
15. She looks on arrival. 'jiii'
16. The house is smoking, the ruins of the house.
17. The savages have burned it.
18. 'Certainly the savages have completely killed them!
19. No wonder they're not drumming, no wonder!
20. Clearly they've all been killed!'
21. From there she is wandering around
22. when she hears crying from the trash pile:
23. 'Cuway, cuway, cuway, cuway!'
24. 'jiii,' here clearly the savages have thrown my
daughter's child!
25. She goes.
Scene IV: The Trash Pile: Grandmother discovers the twins.

26. 'I will recover him to be my companion.'
27. I will raise him to be my companion.'
28. She recovers him.
29. As she is going, she hears that another is crying there also.
30. 'Is someone there?'
31. She returns again.
32. It is his placenta that has been transformed.
33. She recovers him also.
34. She goes, then, under her shelter again.

-------------------------------------------------------------
Scene V: Grandmother's Shelter (in the manioc patch):
The Twins grow
-------------------------------------------------------------
35. She washes him there on arrival.
36. In two days they sit up.
37. In three days they walk all over the place.
38. They don't delay in growing.
39. In five days they are complete adults.
40. He asks his grandmother:
41. 'How then did my deceased father die, how?
42. And my deceased mother?'
43. 'The savages just killed them.'
44. 'Really?'
45. 'Yes.'
Scene VI: The House: The Twins see game

46. The two go again there in the neighborhood of the
ruined house of their father,

47. and they pass by all sides,

48. and they see little toucans, everything: toucans,
wild turkeys.

49. They are eating tayra berries.

50. 'What can we use to kill them?'

51. The two return to their grandmother again.

Scene VII: Grandmother's Shelter: The Twins learn about hunting

52. 'With what did my father hunt animals, with what?'

53. 'With just a blowgun.'

54. It's not here, you know, the blowgun,

55. that which is its tree (that which is the
blowgun tree).

56. From there your deceased father got his blowgun.

57. Darts also from the fork (heart) of the inayuga palm
he got them.'

58. When it dawned again,

-------- Transition --------

59. they left for the tree.

60. 'Be careful it traps you!

61. Quickly you must snatch it from inside,

62. if you want to get a blowgun.'

63. They go to the blowgun tree.
Scene VIII: The Blowgun Tree: The Twins get a blowgun

64. It is yawning over and over again in front of him, 'po, po, po!'
65. Right close by he is now, right close by.
66. There grabbing it he yanks, 'siyon!'
67. There it springs out beside it.
68. So he grabs his blowgun.

Scene IX: Grandmother's Shelter: The Twins learn about blowguns

69. He carries it to where his grandmother is.
70. He greets his grandmother;
71. 'Why have you ruined it again?'
72. 'Why not?'
73. 'For what purpose do you ruin it, for what purpose?'
74. 'So that our offspring will have to suffer (work hard) to make their blowguns.
75. Isn't it important that they make them with their hands? (rhet question meaning 'you know it's important that they make them with their hands').

--------- Transition ---------
76. They go again for darts.
77. 'Be careful, the scorpions that protect it bite you!
78. It's not just one biting thing that protects it, red scorpions and snakes also.
Scene X: The Inayuga Palm: The Twins get darts for their blowgun

79. He climbs searching to the fork of the inayuga.

80. He finishes off the scorpions, the red scorpions, the snakes,

81. and collects from where they were the darts.

Scene XI: Grandmother's Shelter: The Twins learn about darts

82. She sees also that he carries a roll of darts.

83. 'Why did you finish off the biting things that protected it also?'

84. 'Why not?'

85. 'For what reason did you finish them off, for what reason?'

86. 'So that they will have to whittle their darts with a knife.

87. They go again for a dartholder,

Scene XII: The Catirina Palm: The Twins get a dartholder for their darts

88. which is in the fork of the catirina palm.

89. There are biting things that protect it also.

90. He finishes them off

91. the ones that protected it also

92. and he gets the dartholder also.
Scene XIII: Grandmother's Shelter: The twins learn about dart holder

93. His grandmother sees also.

94. 'Why did you finish off the biting things that protected it also?'

95. 'Why not?'

96. 'So that they will have to weave their own dartholders.'

97. Thus it remained there (i.e. like that).

Scene XIV: The House: The Twins hunt and grab the magic flute

98. The two of them go from there again around the neighborhood of the ruins of the house of their deceased father.

99. There they went blowgun-hunting little toucans, everything, wild turkeys.

100. There they spy on the spirit of their mother, and the spirit of their father

101. those that dance in the middle of the ruins of the house.

102. Another day, the same thing again.

103. Another day, the same thing again.

104. Finally the two think:

105. If only we could snatch the flutes of our deceased parents,

106. with them we could secure vengeance for our departed
parents.

107. Finally he says to his brother:

108. 'Let's go and snatch them!'

109. The two of them get up early again.

110. Today, yes, we are going to snatch them.

111. They hide nearby, there where they circle (all traditional Yagua dancing involves circling).

112. 'Here is where they come circling.'

113. They put cetico leaves over themselves, the other one too.

114. 'Be careful not to let go when you grab it!

115. If it heats up,

116. your hand will heat up immediately also.

117. If it shrinks to a tiny flute,

118. your hand will shrink immediately also,

119. If it enlarges to a huge flute,

120. your hand will enlarge immediately also',

121. he says to his brother.

122. The two (spirits) descend to earth again.

123. They are dancing on arrival

124. 'puju! they dance.

--------------------- Climax ---------------------

125. There he jumps up suddenly against them.

126. 'Rupa!' His brother has grabbed his deceased father's flute.

127. 'Tanti!' the two of them stick together.

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128. His brother now screams:
129. 'Now my hand is burning!' 
130. 'Equally your hand will heat up immediately also.'
131. 'Now it burns me!' 
132. Now it burns me!
133. Now I let go of it!' 
134. 'Don't let go of it!' 
135. Finally, he yanks his flute from him completely. 
136. Only Placenta succeeds in grabbing the flute of his deceased mother.
137. Finally he snatches it away from her, 
138. and she ascends jumping, 'püri'.
139. The two have snatched the flute from their deceased mother. 
140. The two go again there to where their grandma is. 

Scene XV: Grandmother's Shelter: The Twins test the flute, 
Grandmother makes manioc beer

141. They call to their grandmother upon arrival: 
142. 'Grandmother! Here, sit down.'
143. She sits down at their command, 
144. and they blow into it, 'véi, véi, véi, véi, véi, véi'
145. One strong blow into it, 'kliiin',
146. She falls like dead. 
147. Their Grandmother revives again.
148. She says,
149. she scolds her two grandsons:
150. 'Jii! What's happening with you two?
151. Obviously you've succeeded in grabbing the flute of
your deceased mother also!'
152. 'Why not?
153. Maybe with it you (speaking to other twin) will
secure vengeance for our dead father.'
154. He says to his grandmother:
155. 'Grandmother, prepare manioc beer.'
156. 'Who, then, is going to drink it with you, who?
157. There aren't any people that I see (i.e. know about)
around here, none.'
158. 'Just nearby there are people.'
159. '(but) the house is not large enough.
160. Where then will the people sit, where?'
161. 'I'll just make the house larger then!'
162. She makes the manioc beer.
163. 'Jujum,' she finishes making it.
164. When she finished making it,
165. she says to her grandson:
166. 'Here now is the manioc beer that you requested.'
167. He commands then his elder brother:
168. 'Invite!'
169. 'Where then will I go to invite, where?
170. I have not seen any people around here, none.'
171. 'But just over there there are people.'
172. Finally, he goes.

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Scene XVI: The Jungle: Elder Brother searches for people
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173. From there he goes circling.
174. without seeing any people,
175. and returns.
176. 'Aha! Many have you invited?'
177. 'I didn't see anybody to invite.'
178. He greets his brother:
179. 'Where, then, do people lack, where?.
180. I then will invite!'
181. Placenta goes.

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Scene XVII: The Jungle: Placenta creates the clans
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182. Near the top of a heap he kicks.
183. 'Come and drink at my place!'
184. From there on the top of a heap of Macaw feathers,
185. 'jun!', 'Come and drink at my place!'
186. From there also on top of a Spotted Cavy burrow.
187. 'Come and drink at my place!'
188. From there also upon an ant's nest.
189. 'Come and drink at my place!'
190. From there also against the buttress root of a
    Pachaco tree he kicks in passing also.
191. 'Come and drink at my place!'
192. From there on top of a bat's nest he kicks in passing
    also.
193. 'Come and drink at my place!'

194. From there against the trunk of the blowgun tree
    he strikes in passing.

195. 'Come and drink at my place!'

196. He turns back from there.

197. 'Enough now.'

Scene XVIII: Grandmother's Shelter: The Clans arrive
and drink

198. He says upon arrival to his brother again:

199. 'Do you think I have invited (things) which you say
    are people?'

200. There are no people within a great distance, none.

201. After a long time, a long time, they now arrive in
    groups.

202. Those of the Squirrel clan begin to arrive,

203. those of the Red Macaw clan after them,

204. those of the Spotted Cavy clan after them,

205. those of the Ant (Isula, a large stinging ant) clan
    after them,

206. those of the Pachaco tree clan after them,

207. those of the Bat clan after them,

208. those of the Blowgun clan after them.

209. And the house was filled with people.

210. They pulled out the supports of the house to make a
    large house.

211. They drink all night long, all night long.
212. It dawns.
213. He tries it on them,
214. (to see) if it works.
215. He blows into it in the midst of them.
216. He blows hard into it.
217. They all fall then.
218. So he says:
219. 'It works!
220. So they get up early {to fight} against the savages.
221. 'Let's go to the savages!
222. Let's kill them!
223. They go.

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Scene XIX: The Savage's house:
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224. They arrive near the house of the savages,
225. Placenta transforms himself into a small hawk,
    beautifully speckled.
226. He ascends running along the roof on arrival,
227. because the savage's roof didn't reach the ground.
228. He ascends running along the roof on arrival.
229. The savages hear:
230. 'Who then is running up there on the roof?'
231. They come out.
232. They look.
233. 'Who then also?
234. How beautiful!
235. Look!'
236. He calls to his kinsmen.

237. They come running out.

238. 'Jiin,' 'Unreal!'

239. They all run out of house, all the savages.

240. One carries a blowgun.

241. 'I'm still going to blowgun him!'

242. 'Don't blowgun him yet!

243. We should tell the people of the other house too,

244. that they might come right away.'

245. One runs to the other house

246. and tells them also.

247. They ran then also. 'Jiin.'

248. He begins to blow into the flute of his deceased

mother, 'viį, viį.'

249. He says to him:

250. 'Don't blowgun him yet.

251. How is he going to play (the flute)?'

252. 'OK.'

253. He is blowing into it.

254. He blows. He blows. He blows. He blows.

255. Quickly he now blows.

256. With all his strength he blows into it,

257. 'Yun!' All the savages fall over,

258. there they are laid out.

259. Not one remains (standing).

260. So the ones that were with him run in passing.
261. There they kill with clubs.
262. 'Juuun.' Finished!
263. 'Your request.'
264. That's how they killed my deceased father.'
265. The matter was finished.
266. They turn back after the battle.
267. They drink the leftover manioc beer in the house again.
268. That's how all the clans remained.
269. So they all stayed outside.
270. So it was he who created the Squirrel clan,
    the Red Macaw clan,
271. so he created them all.

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Scene XX: The Twins obtain water
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272. God has caused the water to subside from them until it is all gone.
273. There isn't any water any more.
274. From then on they keep on getting it from their grandfather.
275. Day by day, day by day,
276. 'Tiiy' until they are tired of it.
277. 'I'm tired of this!'
278. They ask one who lives there with their grandfather,
279. 'How does he get water?'
280. 'I don't know.'
281. 'Don't you know where he bathes?'

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282. 'He always goes bathing over there.
283. He bathes at noon.'
284. He says to his placenta again,
285. 'Go see where.
286. This fellow says he bathes at noon.'
287. 'O.K."

Scene XXI: Grandfather's bathing place

288. He goes to the edge of the woods
289. and watches patiently from there.
290. At last he (Grandfather) speaks,
291. 'Ugh! It's too hot for me!
292. I'm going to bathe first.'
293. The sun is directly overhead.
294. He (Placenta) goes then
295. and changes himself into a little hummingbird
296. and flies after him.
297. He (Grandfather) opens (a spigot) when he gets there
    in his sight (Placenta's), 'Gush! pour!'
298. Their grandfather stands under it.
299. The hummingbird is flying along,
300. 'Tu tu tu! He hits at him.
301. 'Hummingbird, Hummingbird! Why are you being a
    nuisance?"
Scene XXII: Back home

302. There he returns 'Chiy! Chiy! Chiy! Chiy!'

303. He returns.

304. He arrives back at his brother's,

305. and tells his brother,

306. 'It's in that whatcha-ma-call-it water tree which is standing,

307. that great big tree standing (there)!' 

308. 'Really!'

309. 'Yes.'

310. 'What shall we do?'

311. 'I don't know

312. unless we cut it down.'

313. 'OK!'

Scene XXIII: Grandfather's place

314. They rise and go early the next morning to their grandfather's again.

315. They say to their grandfather when they get there,

316. 'Grandpa?'

317. 'What?'

318. 'Uhh, we're going to cut down this tree which is standing.'

319. 'Go ahead and cut!

320. It isn't forbidden to cut it down.'

321. They invite (to work) with them woodpeckers,
squirrels, agoutis -- all of them --

322. woodcreepers, those who make holes, barbets.

323. They invite them all (to work) with them.

324. They cut it.

325. They begin cutting

326. and cut and cut and cut,

327. as far as its center.

328. They cut and cut

329. until the woodpecker is into its heart.

330. 'ti!' It's getting late.

331. It's late.

332. They give up on it.

333. It is quite thin (when) they leave off.

334. 'Tomorrow we'll fell it!'

335. 'Yes.'

336. It dawns

337. and they go again.

338. It stands there intact again.

339. 'No doubt he put its chips back again!'

340. They cut again. 'ti!'

341. They cut and cut and cut

342. until it isn't very thick any more.

343. At last he sends his placenta again,

344. 'Go listen, transforming yourself into the likeness of a little bird,

345. to what Grandfather says.'
346. Their grandfather is sitting in the yard, smoking.
347. He (Placenta) goes.
348. He transforms himself.
349. He listens.
350. He (Grandfather) smokes,
351. he blows it around.
352. He (Grandfather) speaks and
353. he (Placenta) hears,
354. 'Those two children will never fell the
   whatcha-ma-call-it water tree!
355. They'll never be able to fell it,
356. unless they should make a scorpion bite the tip of my
   little toe.
357. Then, it would fall.'
358. Then Placenta turns back again.

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Scene XXIV: Back home
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358a. He tells his elder (brother),
359. 'This is what Grandpa said,
360. only if we were to get a scorpion to bite the tip of
    his little toe,
361. then it would fall.'
362. He says to him,
363. 'Transform yourself then!'
364. 'Into what?'
365. 'Transform yourself into a scorpion.'
366. He transforms himself again.
Scene XXV: Grampa's

367. He has gone again.
368. He (Grandfather) smokes, and smokes,
369. and blows it around on (the tree's) vines.
370. There he bites him on the tip of his little toe when
    he gets there, 'siii'.
371. 'Hey!' It begins to crack immediately,
372. 'Yikes! Ouch! How wise these two kids are!'
373. It stays,
374. it stays just a little bit on the lean now.
375. He says to him again,
376. 'Who on earth is the most painful biter?
377. 'The red scorpion, I suppose.'
378. 'Transform yourself into a red scorpion.'
379. He transforms himself into a red scorpion.
380. He goes again
381. and bites him the same way on arrival again.
382. He was indeed a very painful biter.
383. 'Sii' He falls over,
384. 'Puu' It falls then,
385. 'Yupup, puu.'
386. It falls.
387. His grandson runs at the same time to him,
388. 'What happened to you, Grandpa?'
389. He is not alive any more.
390. He had died.
391. He blows on him, 'JUnit.'
392. He sits up,
393. 'Ha! How are you two so wise?
394. No doubt you've cut it down, too!'
395. 'Of course.
396. What is our posterity supposed to drink?'
397. 'O.K. Let it be so!'  

Snail Episode (no scene change)

398. A little snail comes running for a leaf,
399. and grabs it for his door plug.
400. He touches (it).
401. In his view, it makes a pretty sound.
402. The first Water Snail comes running to him.
403. He says then to him,
404. 'You just got that?'
405. He asks him for it.
406. 'Let me see!'
407. He gives it to him then,
408. 'Go ahead and look at it.'
409. He handles it with his hands.
410. 'How pretty it is!'
411. He gives it back to him,
412. 'Here it is!'
413. He asks for it again.
414. He gives it to him again.
415. He rubs it in his hands.
416. At last he says to him departing,
417. 'I have it now!'
418. He runs away from him to the water.
419. He jumps with it away from him into the water.
420. The owner of the taken object follows him for it.
421. He has jumped with it into the water ahead of him.
422. He jumps in after him.
423. 'Tíiy', he can't submerge.
424. He just floats around.
425. The land snail speaks then,
426. 'Why did you impoverish me?!
427. Now the isulillo (ants) will always bite my exposed fleshy parts.'
428. Another comes running, too,
429. 'I'll be a water tortoise.'
430. He jumps into the water, 'tápuu'.
431. 'Yuu', he floats up.
432. 'Tíiy. You can't be a water tortoise!'
433. Another comes running,
434. 'I'll be a water tortoise!' 
435. In he jumps 'tápuu'.
436. 'Piri.' He sinks,
437. the one who says he will be a water tortoise.
438. He lands on the bottom of the Amazon.
439. 'I'll be the water tortoise,
440. you be a land tortoise.'
441. That one remains as the water tortoise.
442. 'I'll be the water tortoise,
443. you be the land tortoise.'
444. 'What will I eat?'
445. 'Well, fungus and tortoise fruit.
446. You'll eat the tortoise fruit.
447. The berries which ripen red.'
448. 'O.K.'
449. Its owners (the caterpillars that 'own' the water
tree) are now transformed one by one.
450. They paddled away.
451. The white people paddled away, as whites, as blacks,
    all of them, Cocama Indians.
452. All its owners go transformed.
453. Its chips have all been transformed into fish,
    which are the umbrella tree chips.
454. All its leaves transform onto what they call mojarra
    fish, a long kind of mojarra fish.
456. They all transform.
457. Gamitana fish, arapaima, all its leaves are
    transformed into fish.
458. It (the tree) became the long Amazon River then.

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The Twins obtain pifayo
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459. From there they (2) come for pifayo.
460. Now for pifayo they pester him again.
461. 'Give me a pifayo seed, gramps!'
462. He gives him a whole stalk.
463. They cut them all in half.
464. 'Tīy' None have seeds.
465. 'None of them have any seeds.'
466. He gives them another stalk.
467. 'Tīy'. Neither does this one.
468. 'This one doesn't either.'
469. Finally, he thinks again.
470. 'Let's steal it.
471. Just over there is one that has seeds.
472. He always gives us ones that don't have seeds.'
473. He goes.
474. Transform yourself.
475. Transform yourself into a parakeet.'
476. 'OK'
477. He calls the parakeets to himself.
478. Many he calls.
479. He goes from there to his grown over garden,
479a. there where his pifayo palm grove is.
480. 'This is really thick.'
481. The parakeets descend on it, 'Yṃyṃu'.
482. There they are destined to be blowgunned by him.
483. They pile into the pifayo.
484. So there he shoots (blows).
485. So then he shoots.
486. So then he shoots.
487. There now Placenta penetrates it.
488. So then he shoots.
489. There at last he finds its seed.
490. When he comes out from there,
491. there he immediately shoots him, 'Kįį'.
492. 'ke, ke, tíye', he falls.
493. ‘Yʉʉ’, so then they scatter all over from him.
494. He gathers his kill.
495. ‘Jʉʉ’, its a big pile.
496. He takes them.
497. They defeather them when he arrives.
498. They clean them.
499. They cook them in pifayo peel water.
500. Then his brother arrives.
501. They take the parakeets from the fire now.
502. His grandfather gives him to him.
503. 'Eat this one at your house.
504. They are no good pifayo wreckers.
505. He was wrecking pifayo.
506. It's his BROTHER he gives to him.
507. He says to him,
508. 'Quick! Hurry!'
509. He whispers to him.
510. 'Lick my eye.
511. Pifayo water has already entered my eye.
512. Let's go!'
513. He says to his grandfather,
514. 'I'm going now gramps.'
515. 'OK'
516. There at the forest edge he says to his brother,
517. 'Let's look around for my intestines.
518. Yonder I saw them throw them.'
519. He grabs his intestines.
520. He inserts them inside himself.
521. Then he is transformed into a person again.
522. He gives the pifayo seed to him.
523. 'This is the pifayo seed you requested.
524. It is just a little bit cooked.
525. Try planting it.'
526. He plants it.
527. It dawns.
528. It's already this size of tree at dawn.
529. After three sleeps, it already gives fruit.

The Twins obtain corn

530. There corn is now lacking.
531. Not just recently they keep asking their
grandfather for corn also.
532. He doesn't want to give them any.
533. Finally they say to the grasshopper,
534. 'Can you steal one seed for me?'
535. 'Sure.'
536. He roasts coca leaves.
537. Grasshopper roasts them.
538. Their grandfather is just sitting outside.
539. Finally he stands up.
540. The coca leaves now stir themselves around in
his absence.
541. 'Yφ, yφ, yφ.' As he shells (corn),
542. it spills all over, 'γυπςζύ.'
543. 'Grasshopper, Grasshopper, you are stealing again!'
544. 'Not at all. I'm just here roasting coca leaves.'
545. He (GF) goes after it (the spilled corn),
546. and puts it all back where it was.
547. He puts it back where it was.
548. 'Πυ,' another grain also, another grain also.
   (grain by grain).
549. 'But exactly one grain is lacking!'
550. You have stolen one grain!'
551. 'Not at all, not at all.'
552. He goes to him.
553. He looks all over him, his mouth, inside his nostril,
   everywhere.
554. There all over he looks, inside his ear.
555. 'Did you find what you were looking for?'
556. He had inserted the corn seed inside his little
   penis.
557. His two grandsons now arrive also.
558. He takes it out for him.
559. 'Here is your requested corn seed.
560. Now plant it.'
561. They return,
562. and they plant it also,
563. They invite their grandfather again.
564. 'Drink some corn drink Gramps.'
565. 'It must be as I thought!
566. That Grasshopper stole corn for you also.'
567. 'Of course.
568. Otherwise, what would our posterity eat?'
569. 'OK.
570. Let it be so.
571. But it won't grown quickly for them anymore.
572. It'll take three months for it to grow for them.

The Twins obtain the correct name for pifayo
573. After awhile they invite him for pifayo drink also.
574. 'It must be that you stole the pifayo seed.'
575. 'Of course.
576. Otherwise what will our posterity have to drink?'
577. 'OK. So be it.
578. But it will not grow quickly for them anymore.
579. It'll take one year for it to give fruit for them.
580. He also wants its name now.
581. He asks the one living with him,
582. 'What does he call this?'
583. He does not say 'pūprüiy' yet.

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584. He just says its name is 'tãqchurâ'.
585. 'That's not what it's called!
586. He says its real name.'
587. He (Placenta) says to one of his servants,
588. 'How does he say its name?'
589. He is afraid of telling it.
590. 'Tell him only half of it.'
591. Of course he speaks its name loudly.
592. 'Pûqriy', he says it.
593. 'Pû', his mouth twists then.
594. His mouth becomes little then.
595. 'What is it?'
596. 'Tîy', he can't speak anymore.
597. Now he just babbles, 'si, si, si'.
598. 'Tîjî' he figures out its name.
599. 'Is it "pûqriy"?
600. Is that what he just said?'
601. 'Tîy', he can't answer anymore.
602. He has been transformed into a flounder.