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Payne, Doris Lander

ASPECTS OF THE GRAMMAR OF YAGUA: A TYPOLOGICAL PERSPECTIVE

University of California, Los Angeles

PH.D. 1985

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Aspects of the Grammar of Yagua:

A Typological Perspective

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

by

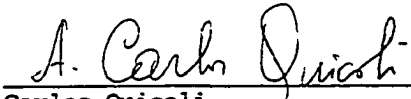
Doris Lander Payne

1985


The dissertation of Doris Lander Payne is approved.



John W. Du Bois



Carlos Quicoli



Pamela Munro, Committee Chair

University of California, Los Angeles

1985

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1985

To the memory of Lucía Macedo,
an eternally great woman,
and to all those whom she represents

.. and to Anna Claire, because she knows that
playing fairies is the most important thing in life
(and that linguists are not scientists)

..and to Stephanie Joy, who has been the delight
of my life just by virtue of being two

..and to Tom
because, among many other things,
he merits dual status more than any man I know

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LIST OF ABBREVIATIONS

A	subject of a transitive clause
AB	ablative
ACHIEVE	action achieved (meaning is actually uncertain)
AL	allative
ANIM	animate
ANTCAUS	anti-causative
CAH	Cahocuma dialect
CAUS	causative
CAY	modal clitic <u>-cay</u>
CC	modal clitic <u>-cô</u>
CL	classifier
COM	comitative
COMP	complementizer
COMPLT	completive
COR	Set I clitic <u>jîy-</u> ; indicates that subject, genitive, or object of postposition is coreferential with some other participant in the clause
CORO	Set II clitic <u>-yù</u> ; indicates that object is coreferential with some other participant in the clause
COULD	'could' auxiliary (see also FRUST)
CU	modal clitic <u>-cù</u>
DAT	dative
DAY	phrasal clitic <u>-day</u>
DEMO	demonstrative root
DEPART	action done upon, or in preparation for, departure
DIM	diminutive
DISTRIB	distributive
DL	dual
DLEXCL	dual exclusive
ED	encoding device
EMPH	emphatic clitic <u>-tée</u>
EP	phenomena to be encoded
EXCL	exclusive
FRUST	'frustrative' auxiliary (see also COULD)
HABIT	habitual
IMPF	imperfective
INAN	inanimate
INCL	inclusive
INF	infinitive/participial
INST	instrument
ITER	iterative
ITER:MVMT	iterative movement
IRR	irrealis auxiliary

JIITA	second position clitic <u>jiita</u> or <u>jii</u> indicating progression or pragmatically marked status
JJU	modal clitic <u>-juu</u>
LOC	locative
MALEF	malefactive
NEG	negative
NEUT	neutral classifier (animate or inanimate)
NIITA	second position clitic <u>-niita</u>
NIY	second position clitic <u>-niy</u> indicating 'contrast' or other marked status
NMLZR	nominalizer
O	object; occasionally object or oblique
O:NOM	nominalizer on understood object of transitive verb
ONE:MVMT	action done with one movement, suddenly
P	postpositional or other oblique phrase
PART	partitive
PAST1	past tense from roughly one week to one month
PAST2	past tense from roughly one month to one year
PAST3	distant past tense
PERF	perfect
PL	plural
PLEXCL	plural exclusive
PLINC	plural inclusive
PM	pragmatically marked component
POT	potential/optative
PROX1	proximate 1 tense (earlier today or future)
PROX2	proximate 2 tense (yesterday or future)
QUEST	yes/no question particle
REP	repetitive
S	subject; or single argument of intransitive verb
SG	singular
SJL	San José de Loretoyacu dialect
TIY	clitic <u>-tiy</u>
TRNS	transitivizer (usually valence-increasing)
V	verb; Vainilla dialect
VIN	verb initial norm (from Keenan 1977 and 1979a)
VRBLZR	verbalizer
1	first person
2	second person
3	third person

ACKNOWLEDGMENTS

This past year I read the biographies of Johann Sebastian Bach and Hudson Taylor. The accounts of their lives support the view that rarely is any great work accomplished by one person in isolation, and that often the work of most enduring value is accomplished in the face of great adversity. This is not to imply that the following pages are any great work, nor that they have been accomplished under great adversity (except to my family). But it is true that they have not been done by one person, nor in isolation.

This study owes its existence primarily to Des Derbyshire. He came through 'town' one purported dry season and perhaps inadvertently convinced me that one ought to know the basic constituent orders of the language one is working on. I decided to take an afternoon cut from looking at phonology to definitively ascertain those for Yagua. This, and much more, is the result. (The phonology is still waiting for another afternoon.) To Des I extend my sincere appreciation.

Pedro Díaz, Gloria Cahuachi de Díaz, and other members of the community of Urco Miraflo not only helped Tom Payne and myself learn something about Yagua, but also offered their friendship and put up with our lack of social graces. By sharing their home, Alchico Jápiiryá and Estela Múcatyuriryá taught us a great deal, especially about the unimportance of manufactured goods. Pedro Díaz, Mamerto Macahuachi, Hilario Peña, and Alcides Lozano Salizar gave unselfishly of their time, energy, and patience. Paul Powlison shared his years

of knowledge about jungle living and the Yagua language and culture, his excellent text collection, and many helpful comments along the way. Each of these people has enriched our lives in an invaluable way and this study would not have been possible without them. Various members of the Summer Institute of Linguistics have provided technical support in the form of air and river transportation, computer technology and software, and the underrated art of babysitting. The Peruvian Ministry of Education made it possible for me to pursue this research in Perú, and I thank them also for their support.

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There are numerous additional people who have significantly shared in my life in the past few years, too many to enumerate all here. But I cannot go without acknowledging Juan and Susan Aceytuno, Laura and Tom Albaum, Frank Alton, Jim and Shirley Hooge, Jeannine and John Isaacs, Anna and Gene Lander, Ann and Ray Lowe, Jan and Kathy Keisser, Jack and Priscilla Payne, and Bonnie and Reagan Zogby. Joyce and Bob Carlson have commiserated at long distance, and Anne Stewart at short distance. Teresa Spörk has broadened my vision of the art and music to be found in language. Each of these people has supported us in important ways.

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My reading this past year has, of course, included many things besides historical biography. It seems fitting to preface the following pages with one of the most profound quotes I have seen on

the significance of peer pressure in determining the right theory to account for the data (Milne 1957:244):

"It's just Eeyore," said Piglet. "I thought your Idea was a very good Idea."

Pooh began to feel a little more comfortable, because when you are a Bear of Very Little Brain, and you Think of Things, you find sometimes that a Thing which seemed very Thingish inside you is quite different when it gets out into the open and has other people looking at it. And, anyhow, Eeyore was in the river, and now he wasn't...

If there is indeed anything of value in the following pages, either in terms of perceived fact or proposed explanation, J. S. Bach said it best:

Solo Deo Gloria

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PUBLICATIONS AND PRESENTATIONS

1976. Syllable theory in natural generative phonology. M.A. Thesis, University of Texas at Arlington.
1978. Grammatical versus referential structure illustrated in English definition. Proceedings from the 1977 LACUS Forum.
1980. Switch-reference in Chickasaw. In Pamela Munro, ed. Studies of switch-reference. (UCLA Papers in Syntax, No. 8), 89-118.
1982. Chickasaw agreement morphology: A functional explanation. In Paul Hopper and Sandra Thompson eds., Studies in transitivity. (Syntax and semantics 15), 351-78. New York: Academic Press.
- 1983a. Review of The case for surface case, by Anna Wierzbicka. Notes on Linguistics, 26.40-42.
- 1983b. Semantic reanalysis of (impersonal) passive as habitual aspect in Yagua. University of North Dakota Linguistics Colloquium. Grand Forks, North Dakota.
- 1984a. Evidence for a Yagua-Zaparoan connection. Workpapers of the Summer Institute of Linguistics, University of North Dakota 28.131-156.
- 1984b. Basic constituent order in Papago. Paper presented at the Uto-Aztecan conference, San Diego, California.
- 1984c. Noun classification as a western Amazonian areal trait. Paper presented at the American Anthropological Association, Denver, Colorado.

- 1985a. Inherent transitivity in Yagua verbs. IJAL 51.19-37.
- 1985b. -ta in Zaparoan and Yaguan. IJAL 51. No. 4.
- 1985c. Review of Word Order Universals, by John Hawkins. Language 61. No. 2.
- To appear a. Noun classification in Yagua. In Collette Craig ed., Noun classes and categorization. Amsterdam: J. Benjamins.
- To appear b. Basic word order in Yagua clauses: Implications for word order universals. In Desmond Derbyshire and Geoffrey Pullum eds., Handbook of Amazonian languages, 1. Berlin: Mouton.
- To appear c. Sufijos de la transitividad en el idioma yagua. Revista Latinoamericana de Estudios Etnolingüísticos.

ABSTRACT OF THE DISSERTATION

Aspects of the Grammar of Yagua:

A Typological Perspective

by

Doris Lander Payne

Doctor of Philosophy in Linguistics

University of California, Los Angeles, 1985

Professor Pamela Munro, Chair

This study documents the major syntactic and morphological features of Yagua, a verb initial language. Yagua is the only extant Peba-Yaguan language, spoken in the Peruvian Amazon region. This study focuses primarily on features that are said to correlate with a consistent verb initial type. It contributes to our theoretical understanding of the allowable orders of meaningful elements, pragmatic factors motivating variation in order, the discourse/pragmatic basis for 'headship' in syntactic constructions, and aspects of morphological theory.

Yagua is verb initial, postpositional, the head noun precedes the descriptive modifier as the basic order, and the genitive noun

precedes the possessed noun. This combination of basic orders has been ruled out by one proposed universal. Consequently, the relevant universal should be taken as statistical rather than as exceptionless. Syntactic factors govern the basic order of verb, subject, and object. But pragmatic factors govern the order of object phrases relative to one another (when more than one occurs in a clause), the order of object and postpositional phrases, and pre-verbal positioning of constituents. Identification of the relevant pragmatic conditions is based on natural narrative discourse. In part, quantitative methods are used to evaluate the discourse data.

Drawing on research in cognitive psychology and prototypical versus non-prototypical exemplification of categories, I argue that a distinction can be maintained between 'head' noun and 'modifying' noun in languages like Yagua, even though there are almost no 'adjectives'. The head noun can be manipulated as an entity in subsequent discourse, while the modifying noun cannot. A prototype framework also proves helpful in sorting out the difference between inflection and derivation. There are more than 40 classifier formatives in Yagua, each of which has classic derivational and inflectional functions. Since they are not exclusively identified with either inflectional or derivational functions, I conclude that the formatives themselves are neither prototypically inflectional nor prototypically derivational. However, a distinction between inflectional and derivational functions is still maintained. Much of the verbal morphology must be taken as derivational. However, some

suffixes evidence variable ordering as would be more characteristic
of syntactically distinct elements.

Chapter 1: Introduction

1.1. Aims of the study

Located in northeastern Peru, Yagua comes from an area of the world which has figured little in formulations of linguistic universals and theory construction (cf. Doris Payne, 1985b). The main aim of this study is to provide a typologically oriented description of selected aspects of the grammar of Yagua, a member of the Peba-Yaguan family. The content of this study is particularly informed by questions of evidence for basic constituent order, constituent order co-occurrences, and discourse and pragmatic factors accounting for alternative orders.

Since by most criteria Yagua would be considered a verb initial language, syntactic and morphological features which supposedly correlate with consistent verb initial languages are discussed (particularly in Chapters 2, 3, and 6). Given the highly polysynthetic nature of the language, noun classification (Chapter 4) and verbal morphology (Chapter 5) are discussed in some depth and briefly compared with available information from other languages of the western Amazon area. Yagua noun classification morphology (like that of several other noun classification languages in the region) provides a nice test case for S. Anderson's (1982) claim that a theoretically clear distinction between inflectional and derivational morphology can be maintained. My present conclusion is that in some

contexts the Yagua noun classification morphology must be accounted for synchronically by inflectional processes, but in other contexts it must be accounted for by derivational processes. How this could be handled within Anderson's theoretical approach is explored in Chapter 4. A prototype view of inflection and derivation is also explored and argued for.

Criteria commonly advanced for determining basic constituent order overlook the fact that in many, if not most languages of the world, transitive clauses rarely contain two overt noun phrase arguments, and then only under conditions which are marked relative to discourse/pragmatics. I discuss pragmatic factors motivating variations in order, and conclude that despite the scarcity of transitive clauses with two overt noun phrase arguments, the basic order must be taken as verb-subject-object (Chapters 6 and 7). The Yagua data suggest that Hawkins' (1983) proposed word order universals cannot be taken as exceptionless. At the present point in time Yagua is a highly 'inconsistent' verb initial language. I suggest this is partly a consequence of a historically prior OV order (Chapter 7). Drawing partly on the work of Nichols (in progress), I further suggest some possible motivations for particular directions of historical change which have resulted in the present conjunction of properties.

1.2. Genetic and typological affiliations

Yagua is the only extant member of the Peba-Yaguan family, which formerly consisted of at least Peba, Yagua, and Yameo (Rivet 1911, Loukotka 1968). Rivet (1911) provides the only readily available Peba data, taken from colonial sources and largely limited to lexical items. Peba is now an extinct language, formerly spoken north of the town of Pebas on the Amazon river, north of the current Yagua area. Espinosa (1955) provides some information on Yameo, also largely limited to lexical items. Yameo was formerly spoken in the region west of Iquitos, west of the Amazon river. Based on mass vocabulary comparison among numerous Amazonian languages, Rivet suggests that Peba-Yagua is part of the Carib grouping. This is not well substantiated, however.

Greenberg (1960) claims that Peba-Yaguan is a major branch of Macro-Carib, along with Huitotoan and Carib. Macro-Carib is purportedly a member of the Ge-Pano-Carib phylum. No evidence is presented for either of these claims. Loukotka (1968), Voegelin and Voegelin (1977), and Key (1979) follow Greenberg. For now I take an agnostic position on the larger genetic affiliation of Peba-Yaguan (though see Doris Payne 1984a, and to appear c. for one hypothesis). Appendix I contains a linguistic map showing geographical distribution of languages and language families in the Peruvian Amazon area.

No systematic study of shared typological traits among languages of the western Amazon has yet been undertaken. Nevertheless, there are clear parallels between Yagua, Bora (purportedly a Huitotoan

language), Zaparoan, Tucanoan, Chayahuita (Cahuapanan) and PreAndine Arawakan noun classification systems (Doris Payne 1984b). There are some striking similarities in verbal morphology and phonological processes with the Zaparoan languages, and more limited similarities in terms of noun classification systems (Doris Payne 1984a). Constituent order type (VSO, postpositional, and infrequent use of noun phrases) parallels that of the PreAndine Arawakan languages and Guajajara (Carib). Taushiro (genetic affiliation uncertain) is also VSO and postpositional, but available text data shows a very high percentage of noun phrases (Doris Payne, to appear d). A widespread South American feature may be a small or non-existent syntactic class of adjectives. Nominal modifiers are usually other nouns, but in natural discourse use of modifying words is rare. Use of nouns as modifiers is found in at least Yagua, Arawakan, Carib (e.g. Hixkaryana), Chayahuita (Cahuapanan), and Quechua. There are similarities in the discourse environments motivating use of object clitic forms to refer to subjects in Yagua and at least some PreAndine Arawakan languages (T. Payne 1985). General organization of the verbal morphology is probably similar to, though not as complex as, that of the PreAndine Maipuran Arawakan languages.

1.3. Demographic and ethnographic information

The Yagua currently live in an area of northeastern Peru which P. Powlison (1969:3) describes as a rectangle approximately 200 miles wide and 350 miles long, extending between the second and fifth parallels and between the seventieth and seventy-fifth meridians.

Chaumeil (1981) estimates that currently there are some 3000 Yaguas. Of these, Tom Payne (personal communication) estimates that approximately 75% of the women and 25% of the men are monolingual in Yagua, with the rest being bilingual in Spanish to varying degrees. Determination of the precise number of ethnic Yaguas is difficult due to ongoing assimilation into the mestizo culture and to long-standing social downgrading of the indigenous groups. If they can pass for mestizos, many ethnic Yaguas do not claim to be Yaguas.

Fejos (1943) is the first authoritative ethnographic study of the Yaguas, based on nine months of experience with them. (Tessmann 1930 gives some information based on second-hand reports; consequently much of his information is incorrect.) Paul and Esther Powlison of the Instituto Lingüístico de Verano (Summer Institute of Linguistics) began living in the Yagua area in 1953, and have spent time with them intermittently until the present. P. Powlison (1969), a detailed study of Yagua folklore, contains the most accurate ethnographic description of the Yaguas, including information on Yagua ceremonies and their belief system. Even though a number of Yagua concentrations are currently located near the Amazon and other larger rivers of the region, they are traditionally a forest culture as opposed to a river culture. Although a large proportion of their daily food supply comes from cultivated chacras (swidden gardens), and now from fish in the rivers and lakes, they still consider the more arduous hunting task important. Chaumeil (1981) discusses pressures on migratory patterns which have led to this distinction between the preferred traditional hunting culture system and the

fishing/horticultural system from which most of their actual food supply derives. (Reichel-Dolmatoff 1971 provides a fascinating discussion of similar ethnographic and culture distinctions among the Desana, a Tucanoan group to north.)

Chaumeil (1981) is a detailed tracing of Yagua migration patterns since the time of the early Jesuit missionaries in the 1700's until the present. Seiler-Baldinger (1976) gives additional information on some migrations near the Peruvian-Colombian border. The dialect situation has never been critically studied, but extensive migration within the last 80 years suggests that dialect differences cannot be adequately keyed to present-day geographical locations. Informal observations by Tom Payne and myself are that most differences are limited to the phonetics and phonology, but there are also some morphological and minor syntactic differences. These will be discussed where we are aware of them. Examples in this study come from three areas: San José de Loretoyacu (SJL) near the Peruvian-Colombian border, Cahocuma (CAH) north of Villacorta on the Amazon River, and Vainilla (V) near the confluence of the Napo and Amazon Rivers.

1.4. Previous and concurrent linguistic work on Peba-Yaguan

Chaumeil (1976) and Wise and Shanks (1977:236-43) together constitute a nearly exhaustive bibliography of published and microfiched material on Yagua and Peba-Yaguan as of the mid 1970's. Chaumeil's bibliography includes colonial sources dating from the 1700's, which were the work of early Jesuit missionaries. These

materials provide information on early western contact with numerous indigenous groups in the Amazon area. They also contain some short religious texts translated into Peba and Yameo and a number of linguistic observations (usually from the perspective of Indo-European language structure). Following the Jesuit missionaries (1700's to early 1900's), Benedictine (1800's to 1950's), Franciscan (early 1900's - 1920's), and Augustinian (early 1900's to mid 1950's) missionaries also left records of their contact with the Yaguas, Yameos, and Pebanos.

From a linguistic standpoint, perhaps the first important work is that of Rivet (1911). At least some, if not all, of Rivet's material is taken from colonial sources. It is largely limited to lists of lexical items and comparison of pronominal forms between Peba, Yagua, and Yameo. Rivet felt that Peba and Yagua were more closely related, as opposed to Yameo.

The third section of Espinosa (1955) gives more detailed linguistic information on Yameo, a now-extinct language clearly related to Yagua. The point at which it became extinct is unknown. Espinosa's information was taken both from colonial sources and personal field work done in the 1950's. At that time there were approximately 50 older speakers. Espinosa gives some information on verbal prefixes, adpositional phrases, and simple clause structure.

The first significant linguistic work on Yagua was done by Esther Powlison and Paul Powlison. Published linguistic work by the Powlisons consists of two articles dealing with phonology (E. Powlison 1971, P. Powlison 1962), one on the number system (Powlison

and Powlison 1958), and one dealing with paragraph structure in a folktale (P. Powlison 1965). P. Powlison (1961) is an unpublished tentative grammar sketch which contains many useful observations about the meaning and distribution of various morphemes. Wise and Shanks (1977:236-8, 1981) list of additional unpublished microfiche materials. The references to this study list more recent and on-going work by Tom Payne and myself.

The findings in this study are based on a corpus of well over 2,500 clauses of oral text, five short written texts, and extensive elicitation carried out by Tom Payne and myself during two years and two months of field work (February 1981 to April 1983). In addition, Paul Powlison has made available his extensive text collection consisting of some 36 oral folkloric, personal narrative, and procedural texts (Powlison and Powlison 1977). A comprehensive morpheme concordance of these texts and preliminary dictionary materials consisting of some 3,000 entries have also been consulted.

A number of frequency counts and other observations made in Chapters 3 and 6 are based on exhaustive examination of 11 narrative texts, both oral and written. These are presented in Table 1.1. Number of clauses indicates the number of full clauses in the text that I included in the counts. The oral texts are divided into three groups: historical narrative, folkloric narrative, and 'personal' narrative. The written texts are all personal narratives. Differences in subgenres do not affect in any way the claims of this study.

GENRE TYPE		APPROXIMATE NUMBER OF CLAUSES
ORAL		
Historical	Three Warriors	46
	David	133
	David Appendix	37
	TOTAL	216
Folkloric	First Squirrel	127
	Kneebite Twins	180
	Musmuqui	140
	TOTAL	447
Personal	Lagarto	45
	Hunter's Text	240
	Lechi Caspi	397
	TOTAL	682
WRITTEN		
Personal	Paçchi	96
	Clausura	76
	TOTAL	172
TOTAL		1516

Table 1.1 Texts used for Quantification of Constituent Orders and Conditions for Alternative Orders

Several comments are in order about the texts in Table 1.1. First, there is no well-established written tradition in Yagua. The Clausura text was actually spoken first in Spanish onto an audio cassette tape, after which it was translated via writing into Yagua by a more fluent speaker of Yagua. I thus consider it a basically 'written' form, rather than an oral form. Quantification of different phenomena across the oral personal narrative and written personal narrative group show no significant differences in the features compared. For instance, use of noun phrases across the two groups is statistically the same.¹ Second, the Hunter's Text is not technically a 'personal' narrative since it is not first person. However, it does

not fit into either the historical narrative type nor the folkloric narrative type. Statistical comparison of different features with the Lechi Caspi text (which includes a fair amount of third person narration) shows no significant differences.

The folkloric narrative group contains texts which are well known in the culture and which describe folk heroes. The texts partially explain how the world as known by the Yaguas came into being, and/or contain super-natural experiences. As a group these texts have fewer noun phrases and a higher incidence of intransitive clauses than the other genres.

The historical narratives do not, as a rule, provide a raison d'être for the world as it is or have the super-natural features characteristic of the folkloric narratives. They are old, probably widely-known stories, relating incidents that must have occurred 100 years ago or more in Yagua history. As a group, they have the highest percentage of noun phrases and the highest percentage of transitive clauses. The latter characteristic may be partially an artifact of the number of fighting events reported in these texts.

My main language consultants for this research have been:

1. Pedro Díaz Cahuachi, age 18², from Urco Mirafío, Peru. Pedro is the third son of Manungo Díaz, the traditional chief of the monolingual sector of the Urco Mirafío community. The monolingual sector of this community migrated in the 1970's from Cahocuma, downriver on the Amazon from the town of Pebas. Consequently, Pedro's dialect is described as that of Cahocuma (CAH). He has had approximately three years of schooling in the local bilingual school,

sponsored by the Peruvian Ministry of Education. Although he would consider himself bilingual, he is more at home in Yagua. He is married to an ethnic Yagua who professes to know almost no Yagua, and thus Spanish is possibly spoken in the home.³ His mother, sisters, and most of his extended family are monolingual in Yagua. His father is nearly so. When Pedro began to work with us, he had minimal literacy skills in Spanish and almost no experience reading or writing Yagua. Pedro gave us our first in-depth introduction to Yagua language and culture, and invited us to share in the building of his first house.

2. Hilario Peña Cahuachi, approximately 30-35 years of age, from Vainilla (V). Hilario has had considerable experience working with Paul Powlison on translation of the New Testament into Yagua, he is quite fluent in both Yagua and Spanish, and he has adequate literacy skills in both Yagua and Spanish. Hilario served as the language consultant for my most extensive research on the verbal morphology.

3. Mamerto Macahuachi, approximately 30-35 years of age, also of the Vainilla (V) dialect. Mamerto is a true bilingual and is more comfortable in the city and mestizo culture than our other language consultants. Perhaps because of his unusual degree of self-confidence and skills in both cultures, he was able to give us the first genuinely written texts in Yagua that we have been able to obtain.

4. Alcides Lozano Salazar, approximately 18 years of age, from San José de Loretoyacu (S JL). Alcides had had six years of schooling in a local Spanish-speaking school when we first met him. (He has since received training as a bilingual teacher, and is teaching in

the same school alongside a monolingual Spanish-speaking teacher.) Our linguistic work with Alcides was limited in duration, but helpful in discovering certain dialect distinctions. Alcides served as a language consultant on questions of the noun classification system.

In addition to the people specifically named, we interacted with a number of monolingual speakers of the Cahocuma dialect in Urco Miraflo.

1.5. Review of pertinent literature

1.5.1. Observations of constituent order co-occurrences

According to Greenberg (1963:83), the earliest reported observations of basic constituent order correlations come from the nineteenth century:

For example, the relation between genitive position and prepositions vs. postpositions and the hypothesis that some languages favor the order modifier-modified and others the opposite order is already a familiar notion in R. Lepsius' introduction to his Nubische Grammatik (Berlin, 1880).

Schmidt (1926) gives a more studied treatment of selected orders based on a world sample. Greenberg summarizes Schmidt's basic conclusions (83):

Prepositions go with nominative-genitive order and postpositions with the reverse order. The nominative-genitive order tends to appear with verb before nominal object and genitive-nominative with object-verb... Further, nominative-genitive is associated with noun-adjective and genitive-nominative with adjective-noun.

Greenberg (1963) is, of course, a landmark work on observations of constituent order co-occurrences. Based on a sample of 30

languages, he draws a number of statistical and absolute implicational universals. These range over a wide variety of syntactic and morphological features. Appendix II to Greenberg (1963), based on a more extensive language sample, lists 24 possible combinations of subject-object-verb, adpositional, noun + genitive, and adjective + noun orders. Perusal of this Appendix shows that some combinations are heavily attested in the sample, while others are not found at all. He nevertheless cautions that the proposed universals are to be taken as tentative, pending a more complete sample. This is an important caution. For instance, Universal 3 states (88): 'Languages with dominant VSO order are always prepositional'. However, Hawkins (1979, 1983) attributes to Keenan the more recent observation that this universal does admit of some exceptions. Keenan's statement is at least partly based on Arawakan languages, as Keenan (1978:292) notes that Baure and other related languages are verb initial plus postpositional.

Hawkins (1979), (1980), (1982a), and (1983) are extensions of Greenberg's work, based on a sample of some 350 languages. This extended sample shows generally similar attestation of co-occurrence types as does Greenberg's Appendix II. Nevertheless, Hawkins apparently did not pick up on the VSO/V-initial plus postpositional combination as an Arawakan pattern, as he cites Pima-Papago (Uto-Aztecan) as the only attested example of a VSO-postpositional language (but see Doris Payne 1984c for arguments against classifying Papago as VSO). In addition to studying distribution and co-occurrence of adposition, subject-object-verb, noun-descriptive

modifier (adjective), and genitive-noun orders, Hawkins (1983) also explores co-occurrence orders of constituents within the noun phrase.

Keenan (1977, 1979a) provide a list of morphological and syntactic features which are purportedly characteristic of verb initial languages. Throughout this study the Yagua data will be compared with this norm. Keenan (1977, 1979a) are hereafter referred to as VIN (verb initial norm), and are partially reproduced in Appendix II. As will be seen throughout the discussion, Yagua is very mixed typologically, though it evidences more than half of the characteristic verb initial traits.

1.5.2. Selected theoretical approaches accounting for word order correspondences

Although Greenberg did not propose a unified theory accounting for his observed universals, he did reflect in important ways on his observations. The operator (modifier) - operand (modified) distinction is commonly attributed to Lehmann and Vennemann (cf. Lehmann 1973; Vennemann 1974; Vennemann and Harlow 1977), but Greenberg (1963:78) and Lepsius before him noted that in most languages there is a tendency to put either the modified element before the modifier, or vice versa. Greenberg also noted the greater cross-linguistic ambivalence of adjective - noun order, which he attributed to analogies with other constructions. Similarly, the seeds of Hawkins' Cross-Category Harmony principle (cf. Hawkins 1982a, 1983) are found in Greenberg's discussion of harmonic and disharmonic relations among distinct rules of order, presumably

associated with psychological generalization. Hawkins throws out SVO as a distinctive type, noting that nothing specifically correlates with this. But Greenberg had earlier stated (79): 'One may further conjecture that if there are exceptions they will be in type II [SVO], which, having both SV and VO which are disharmonic, can provide an anchor in either case for deviant genitive order'.

Lehmann (1973) and Vennemann (1974, 1975, 1981) have tried to theorize about the principles underlying Greenberg's observations. Their proposals are based on the modifier-modified distinction, which is extended to provide diachronic explanations of constituent order change. Lehmann (1973) makes a broad distinction between OV and VO languages, and is principally concerned with an ordering principle governing placement of modifiers relative to their heads in 'consistent' languages (48): 'modifiers are placed on the opposite side of a basic syntactic element from its primary concomitant'. Thus, in OV languages, relative clauses, adjectival, and genitival expressions precede their head nouns, since the primary concomitant of the (object) noun is the following verb. In VO languages, relative clauses, adjectival, and genitival expressions follow their heads for the same reason. For Lehmann, then, there is no distinction between SVO, VSO, and VOS types as all are VO. As modifiers become affixal through phonological reduction, the ordering principle supposedly leads to suffixal agglutinative morphology in consistent OV languages, but to prefixing morphology in consistent VO languages. There is, however, a purported tendency for VO languages to be more isolating or inflectional due to the disruptive influence of the

subject following the verb. Languages which are not consistently OV or VO are assumed to be in the process of historical change. However, no cogent reasons are given as to how or why inconsistency might be introduced to begin with, or for the huge number of inconsistent languages which have been in their 'unstable' state for centuries.

In addition to an overly simplistic division between OV versus VO languages and problems with historical change, a potential difficulty with Lehmann's principle is the notion of 'primary concomitant of a verb'. He assumes a theory of universal grammar containing phrase structure rules in which the sentence S consists of two initial components. Among the early phrase structure rules is the rule $S \rightarrow Q P$, where Q stands for Qualifier (i.e. sentence constituents which modify the entire proposition), and P stands for Proposition. I infer that in Lehmann's schema, some subsequent rule exists such as $P \rightarrow V N(=OBJ)$, where V and N(=OBJ) are unordered relative to each other (cf. 1973:49). Lehmann explicitly rejects inclusion of initial phrase structure rules such as (a) $S \rightarrow NP VP$ and (b) $VP \rightarrow V NP$, where rule (a) introduces a subject phrase as a primary element along with the verb phrase (51). His reasons for excluding rules such as (a) from universal grammar are that (1) subjects are (often) not mandatory or 'primary elements in sentences', as in Japanese and Hebrew; (2) their inclusion as primary elements has resulted in 'trouble for typologists as well as for linguistic theorists in general' as they have tried to 'classify SVO and VSO languages as major types in the same way as VO and OV languages'; and (3) there is the problem of languages where the

identification of a single nominal as 'subject' is problematic. Thus, Lehmann rejects consideration of subject nominals as 'primary concomitants' of the verb phrase.

Considering these arguments against inclusion of the subject as a primary concomitant of the verb phrase, we might well ask why the object constituent should be considered a 'primary concomitant' of the verb in terms of universal grammar in general and Yagua in particular. Although there is little or no problem in identifying subject versus object nominals in Yagua (argument (3) above), it is certainly not the case that identification of the syntactic role 'object' is non-problematic world-wide (cf. Schachter 1984 on Toba Batak for one such language). Further, in terms of frequency, objects are not 'mandatory' in Yagua clauses in context (cf. Chapter 6), and this is true in a number of other languages as well (cf. Derbyshire 1982, 1985; Scancarelli, to appear; Du Bois 1981; Doris Payne, to appear; Wise, to appear). In Yagua the only mandatory elements are the verb or predicate nominal, plus clitic reference to the subject and/or object argument. After the verb, the next most 'mandatory' element in Yagua would be a postpositional phrase or an adverbial element. As I will suggest in Chapter 6, there are certain difficulties and indeterminacies in trying to substantiate that V(S)O is any more 'basic' a clause type than simply V + clitic, and that in terms of discourse, V + clitic may in one sense be more neutral and communicatively 'basic'. Further, the existence of VSO (and possibly OSV) languages generally, where the verb and object are not necessarily contiguous, raises other questions as to why the object

should be considered the 'primary concomitant' of the verb in a structural sense.⁴

Vennemann (1974) accepts Lehmann's distinction between OV and VO types, and proposes the Natural Serialization Principle. This claims that 'consistent' languages will serialize all operators (modifiers) to one side of their operands (heads). The NSP is a bivalued and implicational statement of the form: if P, then Q ($P \rightarrow Q$). It is reversible: $P \rightarrow Q$, and $Q \rightarrow P$. For example, if OV, then postpositional; and if postpositional, then OV (where adposition and verb are operands, and NP and O are operators). As there are numerous languages which stand as exceptions to such strong claims, the NSP is presented as a statistical principle, defining preferred consistent types. Relative to diachrony, inconsistent languages are supposedly moving from one consistent type to another, and verb position is, to a great extent, taken as the trigger to which other operand orders will conform over time. Operand status is determined by two factors: (1) If syntactic category constancy is maintained between a constituent X of a phrase, and the phrase XP itself, then X is the operand. (2) A logico-semantic criterion stipulates that operators are those elements which specify (i.e. are functions on) operands.

Hawkins (1980, 1983) provides a good critique of the inadequacies and logical inconsistencies in Vennemann's proposals. First, Vennemann's definition of operand versus operator is based on a logical argument-function distinction, but Keenan (1979b) argues that Vennemann's operator-operand constructions do not correspond to

standard logical function-argument distinctions. Hawkins concludes that the operand-operator (modified-modifier) distinction IS the significant level of generality for serialization principles (including the NSP); attempts to trace them back to standard logical function-argument distinctions are misguided. Second, the NSP is both too strong and too weak. It is too strong in that it allows only three word order co-occurrence types. In actuality Greenberg's Appendix II attests 16 co-occurrence types. (The three allowed by the NSP are, however, among the most frequently attested types: VSO/Prep/NGen/NAdj [Type 1], SVO/Prep/NGen/NAdj [Type 9], SOV/Post/GenN/AdjN [Type 23]. SOV/Post/GenN/NAdj [Type 24] is approximately equal in size to Type 1 in Greenberg's sample.) The NSP is too weak in that it misses other generalizations. It does not account for the steady decrease in number of attesting languages as increasing disharmony of operand positioning relative to operator is evidenced across phrasal categories. The NSP combines both SVO and VSO as VO languages. However, as Greenberg noted, SVO is not a strong type: nothing distinctly correlates with it as opposed to SOV and V-initial types. By combining VSO and SVO, the NSP effectively blurs typological characteristics specific to VSO.

Equally problematic are the logical inconsistencies of the NSP when it is invoked as an explanation of word order change (Hawkins 1983:235). The NSP projects that inconsistent language types will move towards consistent types. But whenever there are inconsistencies, both of the two consistent types are predicted since all operands are equally predictive. For example, since change

proceeds via doubling structures, if a language is going to move from a basic P & Q stage to a basic -P & -Q stage, there is necessarily an intermediate stage where both P and -P co-exist. But if P and -P co-exist, they exert equal and opposite pulls toward consistent P & Q and -P & -Q languages. Further, -P \rightarrow -Q is logically equivalent to Q \rightarrow P. So any increase in -P should be offset by an equally strong pressure towards retaining the earlier P order, given Q \rightarrow P. Thus, there are pressures against the complete development of -P & -Q.

In later work (Vennemann and Harlow 1977; Vennemann 1981), certain modifications are made. A more consistent definition of operator is provided, but two types of operators are identified: attributes and complements. These are ordered on opposite sides of their operands. Second, the NSP is no longer invoked as an explanation for word order change. Third, the NSP is said to describe an 'ideal' typology, rather than presented as any sort of universal.

Hawkins (1979, 1980, 1982a, 1982b, 1983) adopts Vennemann's distinction between operand and operator (head and modifier), but rejects the NSP as inadequate to account for the range of variation found in language. Rather, he argues for multi-implicational exceptionless statements which purportedly account for all the attested types and rule out certain non-attested types. Immediately relevant to the Yagua case is Universal II:

VSO \supset (NA \supset NG)

This Universal rules out:

VSO/prepositional/genitive+noun/noun+adjective (Type 4)

VSO/postpositional/genitive+noun/noun+adjective (Type 8)

Throughout the following chapters I will argue that Yagua is in fact an instance of a Type 8 language, and that Hawkins' proposed universals are better taken as statistical rather than as exceptionless.

Hawkins additionally proposes the principle of Cross Category Harmony. This states that languages preferably match the number of preposed (or postposed) operators in one phrasal category with the number of preposed (or postposed) operators in all other phrasal categories. The more the position of the operand lines up across phrasal categories, the greater the number of exemplifying languages. Based on current knowledge about the world's languages, the principle of Cross Category Harmony seems to be generally upheld. Hawkins (1983) discusses exceptions, and argues that, for the most part, there are identifiable pragmatic principles which account for these exceptions.

Doris Payne (1985b) discusses two major problems with Hawkins' work. First, there are methodological problems in determining basic constituent orders for some languages. Occasionally it is not clear we can identify a single 'subject' category in one language corresponding in functional and syntactic terms to a subject category in a second language. Consequently it is not clear what it means to talk about comparative basic ordering of 'subject', 'object', and verb across the two languages. In a number of cases Hawkins'

conclusions are to be disputed. Second, due to incomplete coverage of the world's languages, (at least some of) the universals which Hawkins proposes are incorrectly presented as exceptionless. It is the purportedly exceptionless nature of the universals which allows him to invoke them as constraints on historical change. For example, the Universal Consistency in History hypothesis claims that throughout time, languages will always conform to the synchronic universals. Co-occurrences ruled out by these universals cannot stand as intermediate stages between two allowable co-occurrence types. However, if the universals are in fact statistical, it is no longer possible to say that a language could not have gone through a highly inconsistent, though possibly rare, stage. At best, the UCH can only be taken as a probability statement.

1.5.3. Identification of basic constituent order

Langacker (1977:24) states:

In discussing 'basic' word [constituent] order, three related but separate notions must be clearly distinguished: 'most neutral word order', 'most common word order', and 'underlying word order'.

In the typological tradition exemplified by Greenberg, Mallinson and Blake (1981), Hawkins, and others, basic constituent order is generally taken as some sort of confluence between Langacker's 'most neutral word order' and 'most common word order'. Greenberg (1963) in fact gives no discussion of his criteria for determining basic word order, and we are probably safe in assuming that his criteria were somewhat intuitive. Hawkins attempts to be more rigorous, at least in

clearly stating what his ideal criteria are. Briefly, he takes basic word order as that which is (1) absolutely most frequent, (2) 'grammatically' most frequent (e.g. the class of adjectival modifiers which follow the noun is larger than the class of adjectival modifiers which precede the noun), and (3) least restricted in terms of syntactic rule operation. However, in cases where cross-language comparison is difficult, Hawkins takes 'semantic equivalence' as sufficient to make the cross-linguistic comparison (1983:12). It is not clear how 'semantic equivalence' is judged.

Givón (to appear) proposes that the basic word order of a language be determined by that which occurs in main, active, declarative clauses used in contexts in which the subject is definite and easily identified and in which the object is indefinite but referential. Presumably he is referring to the greatest frequency of a certain order within such a clause type, though he does not make this explicit.

In contrast to Givón, Mallinson and Blake (1981) propose that basic order be determined by that which occurs in stylistically-neutral, indicative clauses with definite direct arguments expressed by full noun phrases. Again, I assume they are referring to the greatest frequency within such a clause type.

Finally, it has sometimes been suggested that determination of the basic constituent order of a language should be made on sentences whose interpretation is not dependent on some other presupposition. For example, sentences like Aren't you glad that I got you to start running? presupposes that the proposition I got you to start running

is shared as true by both speaker and hearer. In Chapter 6 I discuss a number of situations in which use of a particular clause construction correlates with correction of, or supplying missing information for, an otherwise presupposed predication. Given that felicitous use of such a construction requires a predicational presupposition, determination of basic constituent order should not be based (solely) on such clauses.

Langacker's term 'underlying order' refers to the fact that within a model-specific description, it is sometimes advantageous to take one order as basic or initial/underlying rather than another. Approaching the subject from within the framework of generative semantics, McCawley (1970) proposed that English be identified as a VSO language. Working within a generalized phrase structure model, Stucky (1981) proposes several phrase structure rules to account for order in Makua, a language which has sometimes been characterized as having 'free' word order. All rules do not have equal status in the grammar and therefore one order can be referred to as syntactically basic. Stucky chooses SVO as the syntactically basic order (81), but notes that this does not necessarily correlate with the pragmatically unmarked order (which she argues might be either SVO or VOS, depending on certain theoretical assumptions), or the typological 'type' (SVO and VOS are claimed to be likely candidates). Stucky dismisses text frequency counts as a criterion since presumably highest frequency correlates with whatever discourse function is most likely to occur. Apparently, this is based on an assumption that it

is not possible to identify some discourse/pragmatic functions as more basic or less marked than others.

As yet another example of this sort of phenomenon, within more recent X-bar theory Coopmans (1984) argues that basic syntactic order in Dutch and German is SOV, and that there is no necessary relation between this and surface main clause word orders. Similarly, Hale (1983) posits phrase structure rules for Papago which define pre-nuclear nonclausal complements (i.e. NP NP V order). He notes, however, that this ordering is not always realized at the surface structure level, and that extraposition derives alternative word orderings. In Doris Payne (1984c) I show that if we take Hale's phrase structure rules as defining basic syntactic order, then basic syntactic order does not correlate with most frequent order, extraposition must be the norm, and it is not at all clear that SOV or NP NP VP correlates with least marked or most neutral order either. In sum, depending on model-specific arguments, one can posit a given order as 'syntactically basic'. But depending on the model, there is no necessary relation between this order and the most frequent or most neutral order relative to discourse and pragmatic function.

My point in this study is not to argue for one order as basic relative to some theoretical model but rather to discuss Yagua from a typological perspective. I will not comment much further on the adequacies or inadequacies of syntactic order approaches. However, in Chapters 2, 3, 5, and 6 I discuss certain facts of the language as they might bear on determination of 'underlying' order and

constituency. Certain facts of the language might lead some to posit SVO as the underlying order, but this is clearly not in keeping with the least marked or most neutral order.

Here, I would like to raise some questions relating to the more typological approaches. First (and perhaps somewhat trivially), the term 'word' is used, and yet it is clear that what is usually under discussion is the relative order of syntactic roles.⁵ In this study I opt for the relatively neutral term 'constituent' since syntactic roles are most neutrally encoded in clearly identifiable syntactic constituents whenever full noun phrases are used.

Second, discussion has been almost entirely limited to order based on syntactic role. Languages where order is sensitive to pragmatic status (e.g. given versus new information, definite versus indefinite, theme versus rheme), have been either left out of the discussion, or forced into a typology where they really do not belong. (This is, in my opinion, a basic problem with many 'underlying' syntactic approaches.) Thompson (1978) is an exception here, and it is important to note that Mallinson and Blake (1981) and Givón (to appear) do include consideration of pragmatic factors, though their primary concern remains with identifying basic order of syntactic roles. If we straightforwardly applied Givón's criteria to the Papago data I have surveyed, for example, we would have to conclude that OVS was the most basic order.

Third, discussion of order based on syntactic role has largely been limited to the distinction between subject and object, and it has sometimes been assumed (e.g. Hawkins 1983) that if syntactic role

is relevant, then the only syntactic roles to be considered are subject and object. Many Austronesian languages are forced into this framework, despite the fact that in some there may be no identifiable constituent which corresponds functionally or semantically with a subject of the Indo-European type (Schachter 1984). There has also been little or no discussion of the possibility that order might be sensitive to ergative versus absolutive syntactic categories in some languages.

Fourth, typological studies generally assume that basic order is determined on 'basic' transitive clauses containing two overt noun phrases. As has been demonstrated in recent work (Derbyshire 1982, 1985; Du Bois 1981, 1984; Lambrecht 1984; Doris Payne 1984c, to appear; Scancarrelli, to appear), in natural oral discourse, overt co-occurrence of both subject and object in a given clause is rarely the case.⁶ Rather, whenever two noun phrases occur, something is likely to be marked relative to the discourse or pragmatic situation. Consequently, we must distinguish between (a) most frequent clause type, and (b) most neutral order when two full noun phrases do occur, keeping in mind that any use of full noun phrases may in some sense be marked. In determining (b), I suggest that a confluence of criteria must be considered, such as frequency (Langacker's 'most common word order [when full noun phrases are used]'), pragmatic markedness, definiteness, referentiality or givenness of participants, degree of presupposition, and simplicity of description. This sort of approach is relevant, however, only to languages where subject, object, or other syntactic categories can be

clearly defined and identified, and where order is primarily sensitive to such categories. It is important to keep in mind that in all languages there is probably some sensitivity to pragmatic factors. In some languages, such as Papago, pragmatic factors account for just about all ordering phenomena, and consequently there is questionable value in trying to force them into a syntactic ordering mold. It is not clear to me that we even want to talk about 'basic' ordering in such languages. We would first have to show that new information is more (or less) basic than given information; that definite information is more (or less) basic than indefinite information, etc. And it is not clear to me that we can do so. Both new and given information are clearly essential to communication, though it may be true that given is more frequent, at least in narrative genres.

1.6. Introduction to the phonology

As a basis for better understanding the data, a brief introduction to the phonemes and some major (morpho-)phonological processes of Yagua is given here (see Payne and Payne, in progress, for further discussion). Consonant phonemes and their allophones are as follows:

	LABIAL	ALVEOLAR	PALATAL	VELAR	POSTVELAR
STOPS	p [p ^w] [p]	t [t] [t̥]		k [k]	
NASALS	m [m ^w] [m]	n [n] [ɲ]			
	[mb]	[nd]			
AFFRICATES			č [č]		
FRICATIVES		s [ts] [č] ~ [š]			
FLAPS		ř [ř]			
GLIDES	w [w] [β]		y [y]		h [h]

Table 1.2 Consonant Phonemes of Yagua

Whenever a morpheme ending in /y/ immediately precedes a morpheme beginning with any consonant other than an alveolar or palatal obstruent, there is a metathesis of /y/ and the consonant. If the consonant is /t/, /n/, or /s/, this process results in the palatal sounds [t̥], [ɲ], and [č]. /y/ plus /w/ is realized as [β] or [βy]. Morphemes do not end in consonants other than /y/. Thus, there are no underlying sequences of C + /y/ where C is a morpheme-final consonant other than /y/. /p/ and /m/ often have labiovelar releases [w], but in the environment of /y/ the labiovelar release disappears. /m/ and /n/ have oral releases preceding oral vowels: [mb] and [nd].

P. Powlison (1962) presents a four-vowel analysis for Yagua. In his analysis the norm of the high 'front' vowel is [i], the norm of the high back vowel is [U], the norm of the low 'front' vowel is [a],

and the norm of the low back vowel is [ɔ]. However, I believe there is good evidence, at least in some dialects, for adopting a six vowel analysis in which [i] and [ɨ], and [e] and [a] are treated as separate phonemes along with /u/ [U] and /o/ [ɔ]. According to this analysis, the vowel phonemes with their allophones are as given in Table 1.3. (In some environments there is 'neutralization' between /i/ and /ɨ/ to [i], and between /e/ and /a/ to [e].)

	FRONT	CENTRAL	BACK
HIGH	i [i] [I]	ɨ [ɨ] [i]	u [u] [U] [ɨ]
MID	e [e]		o [ɔ]
LOW		a [a] [æ] [e]	

Table 1.3 Vowel Phonemes of Yagua

The mid vowels /e/ and /o/ are defective phonemes in terms of frequency and failure to undergo certain phonological rules which apply to other vowels. Additionally, /e/, /ɨ/, and /o/ do not occur in the initial syllables of j-initial verbs which undergo j-deletion (see T. Payne 1983a for discussion of verb classes and morphophonemic processes related to subject cliticization). All vowels may be long or short, nasal or oral. Clusters of non-identical vowels do not occur.

There are two phonemic tones, but syllables are lexically marked for three types of tone features. Syllables which have an inherent

high tone are marked with the acute accent. These are syllables which must have a surface high tone, or sometimes a low-high or high-low glide on certain long vowels. If there is a sonorant consonant intervening between two high-tone syllables, and if the vowel of the first syllable is short, then the first high tone may also be realized as a high-low glide over the vowel plus sonorant consonant. A phrase-final high tone following another high tone may be phonetically mid. Syllables with inherent low tone are marked with the grave accent. These are syllables which must always have a low tone, and which may cause placement of a high tone on a preceding syllable. This occurs if the preceding syllable occurs in part of the intonational pivot of the phrase, and does not itself have an inherent low tone. Syllables which do not have inherent tone assignment are not marked, even when they receive (predictable) surface high tone in certain contexts. These may have either high or low surface tone, depending on placement relative to the intonational pivot, and placement relative to inherent low-tone syllables.

The intonational pivot occurs on the last inherent high or unmarked syllable of the intonational phrase. The pivot is marked by high tone. If the pivot is the last syllable of the phrase, the intonation of the phrase goes up, and stays up. If the pivot is not the last syllable of the phrase (i.e. it is followed by one or more inherent low-tone syllables), the intonation at the end of the phrase falls following the pivot.

A Spanish-based orthography has been developed for Yagua by Paul Powlison in conjunction with the Peruvian Ministry of Education. For

the most part this orthography is followed here. Consequently /k/ is written as qu preceding front vowels and /i/, and as c elsewhere. /č/ is written as ch, /w/ as v, and /h/ as j. In order to reduce the number of diacritics which must be written, [m^b] and [n^d] are written as b and d respectively and nasalization on vowels is not written following m [m] or n [n]. In all other environments, nasalization is indicated by the nasal hook. In the practical orthography, long vowels, tone, and the vowel /i/ are not written, but I represent them here insofar as possible.⁷

Following a /y/ or any palatalized consonant, a vowel fronting process applies to non-mid vowels (vowels other than /e/ and /o/). This is informally given as follows (Y represents both /y/ and any palatalized consonant):

(1) V → [+fronted] / Y_____

 [-mid]

This accounts for the following alternations (the rule applies vacuously to the already front vowel /i/):

[U] → [ɨ] (short [U] only)

[ɨ] → [i] (short and long [ɨ])

[a] → [æ] (short and long [a])

The following examples illustrate application of the fronting rule. Recall that /y/ metathesizes with any morpheme-initial consonant.

When contiguous to the front vowels [i] and [e], and particularly when following a bilabial, the /y/ is then deleted in normal speech.

- (2) murr̥aay 'sing' ray + murr̥aay > [ramir̥raay] 'I sing'
 miisa 'table' ray + miisa > [ramiisa] 'my table'
 -maa PERF -mury + -maa > [mumyɾɾ] COMPLT PERF

Fronting of short /a/ following Y is not as noticeable as fronting of long /aa/. However, I hypothesize that fronting applies in both cases in order to account for identical changes in /a/ and /aa/ when they are simultaneously preceded and followed by Y (see Rule (5)).

When long /aa/ does NOT precede a /y/ or a palatal(ized) consonant, it tends to be very fronted in some words (particularly in the Vainilla dialect but less so in the Cahocuma and San José de Loretoyacu dialects):

- (3) t̥a-nii > [t̥ɾ̥-nii] 'Where is he/her?'
 ray-ya-jásiy > [rayɾ̥ásiy] 'I went earlier today'.

But compare:

- (4) [sa-jáay] 'his/her father'
 [sa-m̥^haay] 'she/he is sleeping'

A vowel raising process applies to [ɛ] (both long and short) whenever followed by a /y/ or palatalized consonant:

- (5) $\left[\begin{array}{l} + \text{ low} \\ + \text{ fronted} \end{array} \right] \rightarrow [- \text{ low}] / \text{ ______ } Y$

Application of (1) and (5) results in alternations such as the following:

- (6) sa-jááy 'his/her father' ray-jááy > rajééy 'my father'
 sa-jáy 'his/her skin' ray-jáy > rajéy 'my skin'

Whenever two unlike vowels come together within a word, the first assimilates to the quality of the second. In (8) the initial *j* drops, as will be discussed later. (Abbreviations are given prior to Chapter 1.)

- (7) táaryuta 'sell' táaryutij 'seller'
 táaryuta-*j*
 sell-NMLZR
- (8) jútay 'say' sútay 'she/he says'
 sa-jútay
 3SG-say

This is accounted for by (9):

- (9) V → V / _____ V
 [α F] [α F]

There is a third rule affecting vowel quality which applies in the context of certain *ja*-initial morphemes when the last syllable of the preceding morpheme contains a short vowel. The processes involved are morpho-lexical and will not be formalized here, but examples follow.

- (10) rachqoniy 'I lift' rachqodéésiy 'I lifted earlier today'
 rachqoniy-jásiy
 1SG:lift-PROX1

- (11) *sų́táy* 'he says' *sų́tēenu* / *sų́tēenu* (V)
sų́táy-janu
3SG:say-PAST3
- sų́taanu* / *sų́tēenu* (CAH)
 'he said long ago'
- (12) *naadatų́uchu* *naadatų́uchoqnu*
'she converses' *naadatų́uchu-janu*
 3DL:converse-PAST3
 'she conversed long ago'
- (13) *są́anaadáásubéésiy*
sa-jánaadá-jasúmiy-jásiy
3SG-open:mouth-arise-PROX1
'He opened his mouth rising up earlier today.'
- (14) *rayá* 'I go' *ray siy* 'I went earlier today'
 raya-jásiy
 1SG:go-PROX1

Several observations may be drawn from the above data. First, /i/ or /iy/ plus *ja* /ha/ results in /ee/ [ee] (example 10). /ay/ plus *ja* results in /ee/ [ee] in V, and in /ee/ [ee] or /aa/ [aa] in CAH (example 11). (I believe that SJL follows the CAH dialect more closely than the V dialect.) /u/ plus *ja* results in /oo/ [ɔɔ] (example 12). Thus, the resultant surface form agrees in fronting with the first vowel, but in height with the second vowel. Second, a nasal-plus-oral sequence surfaces as oral (example 10 and suffixation of *jásiy* in 13), while certain oral-plus-oral sequences become nasal (example 14; but note suffixation of *jasúmiy* in 13). (There is additional complicating data here; see Payne and Payne, in progress). Third, this coalescence process is restricted such that it does not apply to prefixation of Set I clitics (Section 2.1) to *ja*-initial verb roots (see T. Payne 1983a for detailed discussion of what happens in this situation). Fourth, there are some *ja*-initial

suffixes which do not seem to take part in this process, such as -jáy 'proximate 2'⁸ and jáy 'skin'. The following forms show that if the preceding morpheme ends in a long vowel-final syllable, the j /h/ is retained. If the preceding morpheme ends in a long /y/-final syllable, the j is dropped (particularly in V; in the CAH dialect, j may be retained and the following /a/ fronted to /e/).

(15) sa-nicyee-jásiy 'she talked this morning'
3SG-talk-PROX1

V: sa-suuta-múy-ásiy 'she finished washing this morning'
3SG-wash-COMPLT-PROX1

CAH: sa-suuta-múu-jésiý 'she finished washing this morning'

There are two low-level vowel deletion rules which some speakers are able to suppress to varying degrees, depending on the carefulness with which they are speaking. Consider first the following data, noting particularly the underlined vowels:

(16) sasuatatánfíí 'She/he made him/her wash'
sa-suuta-tániy-níí
3SG-wash-CAUS-3SG

níinruuvámu 'at the base of the tree'
níínu-ruuvá-mu
tree-base-LOC

náánsiryjì 'she got inside'
náána-siryjì
3DL-get:inside

BUT:

(17) riiyaróçvaamuntiy *riiyaróçvanntiy
riiyaóçva-janu-ntiy
3PL:make:noise-PAST3-REP
'They made noise again long ago'.

Vátajü muvannaníi
 muvani-na-níi
 wound hurt-TRNS-3SG
 'The wound hurts him (all over his body)'.

The data in (16) and (17) show that vowel deletion applies between two coronal consonants when the first consonant is voiced, and the syllable is low tone and short. (17) suggests that the rule applies progressively and does not apply if either consonant is already in a cluster. The rule is formulated as follows:

(18)
$$\begin{array}{c} V \\ [- \text{long}] \\ [- \text{hi tone}] \end{array} \rightarrow \emptyset / V \begin{array}{c} C \\ [+ \text{cor}] \\ [+ \text{vd}] \end{array} \text{---} \begin{array}{c} C \\ [+ \text{cor}] \end{array} V$$

A second low-level rule is needed to account for deletion of short non-high tone, high vowels between two voiceless consonants.⁹

(19) sasiquityaa sasquityaa 'she/he is alone'
 sa-siquitya
 3SG-be:alone

jaachipiíyaa jaachpiíyaa 'think, decide'
 jaachiy-píi-yaa
 heart-VRELZR-DISTRIB

riinubúshutáásirya riinubúishtáásirya
 ray-jinubúy-su-ta-jásiy-rà
 1SG-paint:self-TRNS-TRNS-PROX1-INAN
 'I painted myself (with achiote) with it (an instrument)'.

But:

sanicyeetatítyiy *sanicyeettiítyiy
 sa-nicyee-ta-títyiy
 3SG-talk-TRNS-going:directly
 'She/he talked (with someone) while going along'.

The second vowel deletion rule is as follows:

$$(20) \quad \begin{array}{c} V \\ \left[\begin{array}{l} - \text{ long} \\ - \text{ hi tone} \\ + \text{ high} \end{array} \right] \end{array} \rightarrow \emptyset / \begin{array}{c} V \quad C \\ \text{[-vd]} \quad \text{---} \end{array} \begin{array}{c} C \quad V \\ \text{[-vd]} \end{array}$$

There are a few apparently regular phonological differences between the San Jose de Loretoyacu, Cahocuma, and Vainilla dialects. The sequence anu /anu/ in SJL and CAH often corresponds to ada /ana/ in V, as in the distant past and infinitival endings -jada (V) versus -janu (SJL, CAH). (However, V speakers may employ both -jada and -janu forms of these morphemes.) Initial /r/ in CAH and V is sometimes absent in SJL morphemes: ray- '1st singular' (CAH, V) versus ay- (SJL). In other morphemes, however, initial /r/ corresponds to /n/ (either [n] or [n^d]): rooriy 'house' (CAH, V) versus dooriy (SJL). Unless mentioned otherwise, examples in this paper are representative of the V and/or CAH dialects.

NOTES TO CHAPTER 1

¹ In this study I cannot pursue many interesting aspects of discourse structure revealed by quantitative differences along various parameters between narrative sub-genres. I mention just a few of them here in passing.

² Approximate ages of consultants reflect approximate ages when we worked with them.

³ His wife grew up in a largely monolingual Yagua-speaking family. Her parents depreciated the language and wanted their children to speak only Spanish. We suspect she actually understands Yagua, even though she may feel uncomfortable speaking it.

⁴ Actually, I suspect that the 'absolute' argument (the object of a transitive and the subject of an intransitive clause) might be a better candidate for the 'primary concomitant' of the verb. This is suggested both by the semantic observations of Keenan (1984) and the discourse/pragmatic observations of Du Bois (1984).

⁵ I would like to thank Jack Du Bois for bringing this to my attention.

⁶ The small amount of available text data from Taushiro suggests that in some languages there is a much greater propensity to use full noun phrases. The Taushiro situation is, however, a case of 'language death' (there were approximately six speakers at the time the text material was recorded and transcribed), and I do not know how this might affect discourse/pragmatic phenomena.

⁷ Most of the Powlison texts and the Powlison and Powlison (1977) concordance project which is based on them do not represent long vowels or tone. Occasionally I have not been able to determine length and tone for morphemes, based on my own knowledge of the language and the available dictionary materials.

⁸ Both Paul Powlison and ourselves have consistently recorded this suffix with a short vowel, though it behaves as if it were long. We have experienced significant difficulty in perceptually distinguishing short versus long oral vowels at times, and it may be this should be written as long even though our perceptions are that it is short.

⁹ Occasionally we have found deletion of short /a/ between two voiceless consonants, yet in other words, such as those given here, it never occurs. Though further exploration is warranted, it is probably the case that /i/ and /u/ are simply 'weaker' than /a/ and more susceptible to deletion.

Chapter 2: Clausal Phenomena

This chapter is the 'elsewhere' case. Here I discuss major structural clause types and facts of clause structure which are not specifically concerned with structure of the noun and adpositional phrase (Chapter 3), noun phrase morphology (Chapter 4), or verb phrase and verbal morphology (Chapter 5). However, some facts which may be more pertinent to clause-level structure are presented in Chapter 5, particularly facts concerned with use of certain clitics and order of object arguments in clauses with complex predicates.

2.1. Major structural clause types

Three major clause types are distinguished by whether the clause has a non-nominal predicate and by whether the clause (potentially) refers to its subject participant by means of Set I clitics (Table 2.1) versus Set II clitics (Table 2.2). In all clause types the most frequent and least pragmatically marked order is predicate-initial. Certain of these structural clause types cross-cut functional clause types such as imperatives and questions. Before illustrating the three major clause types I will introduce the Set I and Set II clitics and make a few comments about general terminology.

For purposes of this study 'subject' is defined as the confluence of 'S' and 'A' in the sense of Dixon (1979). 'S' is the only argument of a single argument clause. 'A' is the most agent-like argument of a multi-argument clause, or that argument which is

morphosyntactically treated as an agent would most commonly be. Object is similarly defined as Dixon's 'O' which is the next-most agent-like participant of a multi-argument clause. (In actual fact, it is often not agent-like at all.) Occasionally I use the symbol O to refer to any non-subject argument for which the subcategorization frame of the verb may or may not be specified. Arguments specified by the subcategorization or semantic case frame of the verb are termed 'direct' arguments. Those which are not are termed 'oblique' arguments. Obliques include postpositional phrases and time and locative expressions.

Set I clitics are prefixal. Semantically, these indicate whether the referent is animate or inanimate. If the participant is animate, the clitic also indicates its person and number. Syntactically, Set I clitics reference subjects of Type 1 clauses (Section 2.1.1.1), genitives (Section 3.5), and objects of postpositions (Section 3.6).¹ Table 2.1 presents the most widely used variants of these clitics. T. Payne (1983a) discusses other phonologically and lexically-dictated forms (there is a great deal of phonological fusion between the clitic and the first syllable of many verb roots, postpositions, and one of the auxiliaries).

	SINGULAR	DUAL		PLURAL	
		INCLUSIVE	EXCLUSIVE	INCLUSIVE	EXCLUSIVE
1 person	ray-	vũy-	nááy-	vũy-	mũy-
2 person	jiy-		sáána-		jiryey-
3 person	sa-		naada-		riy-

inanimate (no number distinction): rá-

index determined by co-reference with some other participant in the clause (not used for 1st and 2nd singular): jiy-

Table 2.1 Set I Participant Reference Clitics

The co-reference clitic jiy- (COR) does not have an inherent animacy and person/number index, but must get its index from some other element in the clause. This is explored more fully in Section 2.1.1.3, Chapters 3 and 5, and in T. Payne (1985, Chapter 4). The third person clitic forms are not differentiated for masculine versus feminine gender and I translate them as 'he', 'she', and 'she/he', depending on context or lack thereof. The second and third person dual clitics sáána- and naada- are used to recognize the special status of (singular) women who have borne children. Third person singular forms may be used to reference semantically plural entities which are relatively lower on a topicality hierarchy (cf. Silverstein 1976). For example, groups of animals may be referenced as singular in contrast to humans. Plural children may be referenced as singular in contrast to adults. Plural 'savages' or 'enemies' may be referenced as singular in contrast to nijvaamiy 'people' (i.e. Yagua people).

Some Set II clitics are suffixal (indicated by a preceding hyphen in Table 2.2), while others are phonologically free or indeterminate. Both bound and free forms are isomorphic with free pronouns except that the latter carry stress. There is no free pronominal counterpart to the inanimate clitic -rā or to the coreferential clitic -yū. However, -rā is more pronoun-like than -yū in that -rā can form a relative pronoun with the relative clause clitic -tiy, while -yū cannot (Section 2.11.4). Syntactically, Set II clitics are used to reference objects of transitive clauses (Section 2.1.1.2), subjects of some intransitive clauses (Section 2.1.2), and subjects of predicate nominal and predicate locative clauses (Section 2.1.3).² The most widely used forms are given in Table 2.2.

	SINGULAR	DUAL		PLURAL	
		INCLUSIVE	EXCLUSIVE	INCLUSIVE	EXCLUSIVE
1 person	-ráy	-vúy	nááy	-vúy	núy
2 person	jiy		saadá		jiryéy
3 person	-níi		naadá		-ríy

inanimate (no number distinction): -rà

index determined by co-reference with some other participant in the clause (not used for 1st and 2nd singular): -yù

Table 2.2 Set II Participant Reference Clitics

As with the Set I clitic jiy-, the Set II co-referential clitic -yù (CORO) does not have an inherent animacy and person/number index, but must get its index from some other element in the clause (cf. Section 2.1.1.3, Chapters 3, 5, 7; and T. Payne 1985). The second and third person dual forms are again used for (singular) women who have borne children, and third person singular forms may be used to reference semantically plural referents which are lower on a topicality hierarchy, as discussed above.

2.1.1. Clause Type 1

Type 1 clauses are distinguished by two facts. The predicate is verbal, as evidenced by the range of specifically verbal suffixes that it may take. Additionally, if a subject noun phrase occurs postverbally, or if no subject noun phrase occurs in the clause, a Set I clitic references animacy, and if animate then person and number of the subject argument. This will be illustrated shortly.

Type 1 clauses (and Type 3 which are predicate nominals) cross-cut other clause types such as questions and imperatives.

In Type 1 clauses the pragmatically neutral order when overt noun phrases occur is V[erb]-S[ubject]-O[bject]. Post-verbal placement of arguments is also the most frequent order in texts (Chapter 6). In elicitation via Spanish, our language consultant has occasionally offered SV(O) order initially, but then volunteered that VS(O) is 'more correct'. The orders OVS and Oblique-VSO also occur. Those which do not occur are VOS and any order where there are two constituents before the verb such as SOV, OSV, Oblique-SVO, Oblique-OVS.³

2.1.1.1. Subjects in Type 1 clauses

If the Subject NP follows the verb as in (21), or if there is no overt subject NP in the clause as in (22), a Set I proclitic occurs attached to the verb. If a preverbal auxiliary is present as in (23), the clitic is attached to the auxiliary.

(21) Sa-jũy Anita.
3SG-fall
'Anita falls'.

(22) Sa-sĩy.
3SG-run
'She/he runs'.

(23) Sa sũy.
sa-a
3SG-IRR run
'She/he will run'.

If the subject precedes the verb (and is not 'left dislocated'), a Set I proclitic does not occur:

- (24) Anita júpy.
'Anita falls'.

If an NP referring to the subject is 'left-dislocated', a resumptive Set I clitic must occur on the verb or auxiliary. I will refer to 'left dislocated' and certain other expressions in this left-most position as 'non-nuclear delimiting' expressions (see below and Chapter 6). The resumptive reference is underlined in (25):⁴

- (25) Núcovaafu sùjyq sàdásifiy,
 sùjy-jq sa-jadásiy-niy
wasp bite-NMLZR 3SG-knee-in
- jãamura rápoo.
 jãamu-ra rá-poo
big-CL:NEUT INAN-swell:up

'The wasp bite in his knee, it swelled up big'. (KT004)

2.1.1.2. Objects and obliques in Type 1 clauses

If the object of a divalent Type 1 clause is expressed by a full noun phrase, a Set II clitic immediately precedes the object noun phrase but is attached to whatever precedes the object phrase. The clitic thus forms a syntactic constituent with the following object noun phrase, but a phonological constituent with the preceding word. Syntactic constituency is indicated by brackets in (26) and (27); Set II clitics are underlined.

- (26) Sa-suuta Rospita-[ní Anita].
3SG-wash -3SG
'Rospita washes Anita'.

- (27) Ruvvamyuufiúiyanu t̥it̥áj̥u[r̥iy munufiúimiy].
 riy-juvay-muuy-núy-janu t̥it̥áj̥u-r̥iy
 3PL-kill-COMPLT-IMPF-PAST3 completely-3PL savage
 'They completely killed off the savages'.

Set II clitics are used with object noun phrases roughly when the object is definite and individuated. In (28), for example, the object is a non-specific mass and no clitic occurs:

- (28) Saatu buyaa.
 sa-jatu
 3SG-drink manioc:beer
 'He drinks manioc beer'.

However, the clitic is absent even in some cases where the object is highly individuated and definite. T. Payne (1985) suggests more generally that use of Set II clitic plus a noun phrase to encode the object has to do with projected discourse deployability or saliency of the participant in subsequent discourse.

If an overt NP is not used to refer to the object, a Set II clitic alone will reference the object. In this case the clitic most neutrally occurs as the last element in the clause (this is quantified in Chapter 6):

- (29) Sa-suuta Rospita raruváava-[níi].
 3SG-wash down:river-3SG
 'Rospita washes him/her downriver'.

If the object is fronted before the verb but is not 'left dislocated' (i.e. it is not in the non-nuclear delimiting position as discussed below), it is not cross-referenced by a Set II clitic. Rospita could not be interpreted as the Subject in (30) because the Set I clitic

sa- occurs on the verb. If a subject noun phrase is present, it must thus be postverbal.

(30) Rospita sa-suuta Anita.
'Anita washes Rospita'.

If a noun phrase referring to the object does occur in the non-nuclear delimiting position, a resumptive Set II clitic occurs in its normal position at the end of the clause:

(31) Anítaniy, Pãuro púchéésifíí.
Aníta-níy púúchíy-jásiy-níí
Anita-NIY Paul carry-PROX1-3SG
'Anita, Paul carried her'.

Similarly, if an oblique phrase for which the verb is subcategorized occurs in the non-nuclear delimiting position, resumptive reference to the oblique occurs somewhere following the verb. This is illustrated in (39) below.

In verb initial languages (VIN, Keenan 1977, 1979a), the verb commonly agrees with none or with two arguments, but hardly ever with just one argument. As (26) shows, in Yagua the verb or auxiliary cross-references only the subject argument. But in highly transitive clauses where the object is well-individuated two arguments may still be referenced by clitics in the clause. If the Set II clitic occurs on the verb as in (31) this is merely because no other constituents occur following the verb, and a consequence of the leftward cliticization process. Strictly speaking, the verb only agrees with one argument.

2.1.1.3. Reflexives and reciprocals

The coreferential object clitic -yũ (CORO) is used whenever an object is co-referential with a preceding subject, genitive, or object of a postposition (i.e. some Set I argument) within the same clause. Among other things, then, -yũ indicates reflexivity and reciprocity. As far as I know -yũ is never followed by a full noun phrase. This is pragmatically unnecessary as the index of -yũ is always determined by a preceding argument. As with other Set II clitics when there is no overt noun phrase object, -yũ most neutrally attaches to the last element in the clause:

(32) *Suɣvay Davibyeyu.*
sa-juvay Daviy-bay-yũ
3SG-hit David-deceased-CORO
'David hit himself'.

(33) *Ruɣvay murufũmiyu.*
riy-juvay murufũmiy-yũ
3PL-hit savage-CORO
'The savages hit themselves'. OR: 'The savages hit each other'.

If a verb is subcategorized to take an object in the dative case, reflexivity and reciprocity are indicated by the Set I coreferential clitic jiy- (variant yi-) occurring with the dative postposition:

(34) *Tomása díiy yi-íva.*
Tom see COR-DAT
'Tom sees himself'.

(35) *Rijítáy nijyaamiy yííva....*
riy-jiítáy yi-íva
3PL-say people COR-DAT
'The people say to each other ...'

2.1.1.4. Trivalent clauses

In trivalent clauses both objects may be referenced by clitics if they are definite and individuated. Rocks are animate, which accounts for the animate singular Set II clitic in (37):

- (36) Sasaafiira.
sa-saay-nii-ra
3SG-give-3SG-INAN
'He gives it (to) him'.
- (37) Rodrigo saafi ravichu ray.
saay-nii
Rodrigo give-3SG rock 1SG
'Rodrigo gives me the rock'.
- (38) Sadaatyamunii Antóniora niqueejada.
sa-daátya-nu-nii António-ra niquee-jada
3SG-know-TRANS-3SG Antonio-INAN talk-INF
'He teaches Antonio the word (or language)'.

2.1.1.5. Structure in Type 1 clauses

The preceding facts about use and non-use of Set I and Set II clitics when there is a preverbal subject, object, or oblique suggest that structurally there are two types of preverbal constituents. Differential placement of second position clitics (Section 2.4) and different pragmatic functions of preverbal elements also support such a distinction.

The first structural position is what I have termed a 'non-nuclear delimiting' constituent. The pragmatic function of phrases occurring in this position is to provide a limiting frame of reference in terms of either time or location, or to set up for the hearer an entity relative to which the rest of the sentence is relevant (Dooley 1982; Chafe 1976:50 uses the term 'topic' in this

sense). This position may or may not encode phrases which are co-referential with arguments required by the semantic case or subcategorization frame of the verb.⁵ The term 'non-nuclear' implies that there is a 'nuclear' portion of the clause as well. Syntactically, the nucleus consists of the verb plus those arguments required by the semantic case or subcategorization frame of the verb, plus clausal operators which have scope over the verb and its arguments (e.g. tense, mode, aspect). Pragmatically the nucleus conveys the basic predication (cf. Chapter 6). Example (25) above illustrates use of a delimiting phrase, where this phrase is co-referential with the subject of the clause. The following examples illustrate a locative oblique and a time expression in delimiting function. Note the resumptive reference to the locative (underlined) in (39).

(39) Roorinchasiy, sasichichiy jiīta rumusiyu.
 rooriy-jācha-siy sa-sichichiy rumu-siy-yū
 house-on-AB 3SG-throw:down JIITA there-AB-CORO
 'From up on the house, he threw himself from there'. (LX003)

(40) Tiīiqui j̄arim̄yuni-sāar̄a-j̄ū sa-tiryōō-ta-jayāā-r̄a.
 one:ANIM:SG moon-extent:of-AL 3SG-lie-INST-ITER-INAN
 'For a whole month he was laid up (in bed) with it'. (KT005)

The non-nuclear delimiting component corresponds structurally to what is sometimes termed a 'topic' or 'left-dislocated' constituent within certain traditions (cf. Chafe's 1976 use of the term 'topic'). I wish to avoid the term 'topic' for this structural position because of confusion in the literature over what this term indicates. In Yagua a delimiting entity or concept need not be the topic of the sentence in the sense of 'what the sentence is about' (cf. Dooley

1982:311; Gundel 1974:15, Dik 1978:130, Halliday 1967:212). It need not be a highly continuous element in the sense that it has been very recently mentioned (cf. 'topic' in the sense of Givón 1983).⁶ The pragmatic function of non-nuclear delimiting elements discussed above is closer to the characterization of topic given by Li and Thompson (1976). Li and Thompson (1976) suggest that topics are always definite. In Li and Thompson (1981), however, they allow that they need not be. In Yagua, correlative and perhaps other subordinate-type clauses may serve non-nuclear delimiting functions. Often such phrases or clauses encode indefinite or non-specific participants:

(41) Játiy jiyjéébyey junoo-siy rə cháásiy
 ja-tiy jiy-jááy-bay junoo-siy cha-jásiy
 DEMO-TIY 2SG-father-deceased head-CL:seed IRR be-PROX1

 samaríy, níinifíí jiyjáapá.
 sa-mariy níi-niy-níí jiy-jáapá
 3SG-necklace 3SG(pronoun)-NIY-3SG(SetII) 2SG-grandfather

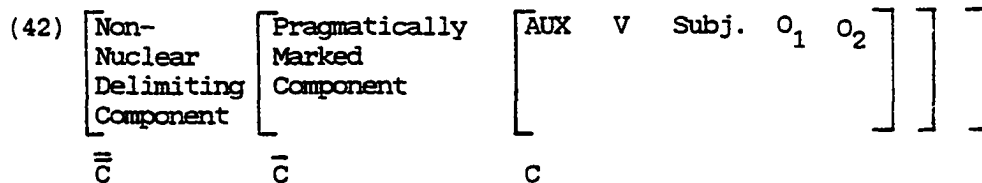
'Whoever (has) your deceased father's skull (as) his necklace, he is your grandfather'. (Literally: 'Whoever your deceased father's skull will be his necklace, he is your grandfather'.) (LX082)

The second preverbal position is termed the 'pragmatically marked' (PM) component. This encodes information which is pragmatically non-neutral or marked in terms of the speaker's communicative intent. The exact ways in which information can be pragmatically marked are discussed in Chapter 6 and will not be illustrated here. The PM position may encode any element of the nuclear predication, whether it be a noun phrase, a postpositional phrase, a descriptive modifier which is discontinuous from the rest of the phrase with which it forms a semantic constituent, or an

adverb.⁷ Though elements in this position are not limited to any one syntactic function, the position itself is a syntactic fact as shown both by second position clitic placement (Section 2.4) and Set I and Set II clitic reference. If the PM position encodes a subject, object, or (subcategorized) postpositional object of the clause, the argument is NOT resumptively mentioned by a Set I or Set II clitic (cf. examples (24) and (30) above).

It may be asked whether or not the pragmatically marked position is more or less equivalent to what would be termed a Complementizer (COMP) position in certain other traditions. I have avoided using this term because (1) clauses which begin with a complementizer (Sections 2.11.2 and 2.11.4) may still have another element in the PM position, (2) I am not certain the PM position has all the characteristics commonly associated with so-called COMP positions and until such could be shown I wish to not confuse the issue, and (3) what is clear is that this position encodes pragmatically marked information.

The syntactic structure of Type 1 clauses when full noun phrases are used is roughly that suggested by the diagram in (42). In intransitive clauses, of course, a direct object is not present, though an oblique may be. More detailed discussion of each element in (42) will be taken up throughout this and following chapters.



Where O = Direct Object or Oblique (postpositional phrase, time, or locative expression).

A few further observations are warranted about the structure posited in (42). First, there is syntactic structure in Yagua clauses and this structure is in part hierarchical. There are a variety of notations which could express the hierarchical structure equally well. That there is hierarchical structure is shown most clearly by use and non-use of Set I and Set II clitics as described above, and by placement possibilities for second position clitics (Section 2.4). Also, elements in the non-nuclear delimiting position have locational, time, or other delimiting scope over the rest of the \bar{C} clause. Elements occurring in the Pragmatically Marked position have a pragmatic and sometimes semantic function relative to the remaining group of elements occurring within C. Briefly, when an element occurs in the pragmatically marked position, the remaining group of elements usually constitutes a presuppositional background assumption against which information in the PM position is asserted or contrasted (Chapter 6).

Second, within C the structure is essentially 'flat' (Chapters 5 and 7). Relative to syntactic structure, I will not argue for any more underlying representation than that given in (42). Grammatical relations of 'subject' and 'object' perhaps must be taken as primes at this level of abstraction (though there are ultimately

semantico-pragmatic factors motivating grammaticization of such relations). This is not to deny that Yagua verbs are not subcategorized for co-occurrence with object arguments (Doris Payne 1985a). But sheer co-occurrence requirements do not (to my mind) argue for a syntactic verb phrase consisting of verb plus object as opposed to subject, since verbs also require co-occurrence of subjects. Nevertheless, objects are distinguished from (transitive) subjects on the basis of closer semantic selectional restrictions and semantic interpretation dependencies obtaining between verbs and their objects (Keenan 1984). Insofar as subcategorization and semantic selectional restrictions are partly syntactic in nature, at least showing sensitivity to categories of subject, object, and (subcategorized) obliques, then a verb and its object may be said to form a discontinuous semantico-syntactic constituent.

Third, the structure in (42) assumes that order in Yagua is based on syntactic role. For the most part this is true. However, order of direct and oblique phrases (O_1 and O_2 in (42)) relative to one another is dependent on a mixture of pragmatic considerations and encoding devices (Chapter 6). Pragmatic factors also determine occurrence of elements in the FM position. Occurrence of elements in the FM position, rather than in post-verbal position, is not strictly meaning preserving since different pragmatic force is associated with different orders. Further, if certain second position clitics occur suffixed to elements in FM, these clitics carry different aspectual/modal meaning than when suffixed to the verb (Section 2.4.1).

One drawback to the structure posited in (42) is that it ignores the status of clause-final paratactic phrases (Section 2.6; Chapter 6). Some might suggest these are not part of the strictly 'grammatical' structure, and thus the 'grammar' need not account for them. Although I believe there is a sort of grammatical looseness about them (e.g. they can encode any grammatical role and they can occur after clause-final adverbial elements which may have scope over the entire clause), they do have clear discourse/pragmatic functions as discussed in Section 2.6. Another drawback to the structure in (42) is that it may suggest that elements in PM somehow have scope over C. I am not sure how true this is for preverbal NP's, FP's, adjectives, or adverbs which semantically are part of the nuclear predication.

One more qualification should be made about the structure posited in (42). In Section 2.4.3 I argue that what is given in (42) is a more underlying level of syntactic structure, which is relevant for placement of certain second position clitics. However, a more surface level of structure is also posited in order to account for accurate placement of the second position clitic jiŋta.

2.1.2. Clause Type 2: S₀ clauses

Type 2 clauses are intransitive clauses which employ a Set II clitic to refer to their only argument (the 'S' in the sense of Dixon 1979). An NP referring to the subject may or may not follow the clitic. Thus, the intransitive subject argument is morphosyntactically treated in the same way as (individuated and

discourse deployable) objects of transitive clauses (Dixon's 'O'). Following Dixon (1979:80) I refer to these as S_0 clauses. Use of S_0 clauses is dependent on discourse contexts which can partly be described in terms of changes in locational scene with some non-typical location-changing action, or points of release of climactic tension (T. Payne 1985). S_0 clauses often begin with a locative demonstrative of some type:

(43) Múy jǔfíí munufúmiy.
 jǔy-níí
 there fall-3SG savage
 'There falls the savage'.

2.1.3. Clause Type 3: Predicate nominals and predicate locatives

Type 3 clauses employ a nominal or locative expression as the predicate. Despite their predicative function nominals in these clause types remain syntactically nominal as shown by their inability to take overt tense or aspectual morphology. If the subject is expressed by a full noun phrase, a Set II clitic may precede the subject noun phrase as in (44). If there is no following subject noun phrase, a Set II clitic must occur as in (45) and (46). The subject may precede or follow the predicate. When it precedes, a Set II clitic does not occur as in (47) (compare (30) above). Thus, the single (subject) argument is in an overt object form. In accord with VIN, there is no overt copula in this type of clause.

- (44) Machíturu-numaa-(níi) Antonio.
 teacher-now-3SG
 'Antonio is now a teacher'.
- (45) Machíturu-numaa-níi.
 teacher-now-3SG
 'She/he is now a teacher'.
- (46) Vóóca-ncha-níi.
 cow-on-3SG
 'She/he is on the cow'.
- (47) Antonio machíturu-day.
 'Antonio is a teacher'.

2.1.4. Type 1 predicate nominals

Type 3 clauses as in (44) through (47) are overtly tenseless, generally indicating a current state of affairs. If the speaker wishes to indicate tense or stipulate certain aspectual conditions, a BE verb (vicha, nicha, or cha) or the verb machoo 'remain in some condition' must be employed. These verbs can carry Set I clitics to refer to the subject and can take the full range of verbal morphology. Thus the expression is a Type 1 clause. (BE verbs may be used in predicate nominal expressions even when tense and aspect morphology is not overt. Verbal morphology is discussed in detail in Chapter 5.)⁸

- (48) Ricyuráca savichanúúyanu.
 riy-curáca sa-vicha-núúy-janu
 3PL-chief 3SG-be-IMPF-PAST3
 'He was their chief'.
- (49) Vínu sajaachidyenumaa jífícha.
 sa-jaachiy-dee-numaa jíy-nícha
 only 3SG-heart-DIM-now COR-be
 'He was only his heart now (i.e. only his heart was alive)'.
 (TW009)

- (50) Néé coodiy sa-nicha.
 NEG boa 3SG-be
 'He could not be a boa'. (FSQ017)
- (51) Báátyi rimechõpvaꞤ Moquiday, Çaduntiy.
 riy-machõp-vaꞤ Moqui-day Çadu-ntiy
 not:dead:one 3PL-remain-ACHIEVE Moqui-DAY Çadu-REP
 'Not dead ones they remained, Moqui, Çadu also'. (TWO08)
- (52) Ráy jĩĩta vichasara jááryiy juveenudáátyiĩ.
 vicha-sara juvay-janu-dáátya-ĩ
 1SG JIITA be-HABIT very fight-INF-know-NMLZR:ANIM:SG
 'I am a great fighter'. (DAVO14)
- (53) jifu jiryátiy savichasara sũũrya.
 jiy-mu jiy-ra-tiy sa-vicha-sara sũũry-ra
 DEMO-CL:ANIM:SG DEMO-CF:NEUT-TIY 3SG-be-HABIT bite-CL:NEUT
 'this one who is a biting one' (LX036)

Postverbal placement of the nominal complement as in (52) and (53) is much less characteristic than is preverbal placement as in (48) through (51).

The BE verbs are not strictly copular. They may be used without a nominal or locative complement in the sense of 'to exist', 'to live or be (in a certain location)', or 'to remain (in a certain location)':

- (54) Savichanũũyanu Moqui.
 sa-vicha-nũũy-janu
 3SG-be-IMPF-PAST3
 'Long ago there lived Moqui'. (TWO01)
- (55) Néé savicha jiryá roorimyu.
 sa-vicha jiy-ra rooriy-mu
 NEG 3SG-be DEMO-CL:NEUT house-LOC
 'She/he doesn't live in this house'.
- (56) Níi-niy rá cha jiyu riísaa.
 3SG-NIY IRR be here 1SG:COM
 'She is going to be here with me'.

2.2. Impersonals and functionally related constructions

There is no productive specifically passive construction in Yagua. This is apparently contrary to VIN which says that verb initial languages always have a passive voice which is almost always marked in the verbal morphology or indicated by employing a nominalized verb (but see Section 2.2.3). Nevertheless, there are three constructions which have some functional similarities to canonical passive constructions in terms of either reducing the valency or transitivity of the clause, taking the agent out of focus (perspective), or bringing the patient into focus (perspective) (see Givón 1982 and Keenan, to appear, for cross-linguistic discussion of this functional domain). In addition, there are a few lexically passive roots.

2.2.1. The impersonal construction

The impersonal construction employs a verb suffixed with the habitual formative -sara (Section 5.3.2.1), or possibly with the nominalizer -sara which forms nominalizations on the understood patients of transitive verbs (cf. Section 2.2.3). These two formatives are isomorphic and arguments could be made for the occurrence of either in impersonal constructions. Doris Payne (1983) suggests the habitual may in fact have derived historically from a passive morpheme -sa plus the 'neutral' classifier -ra. Impersonals are neither clearly Type 1 nor Type 3 clauses. First, they may not take Set I clitics. However, whether or not they have a verbal predicate depends on whether or not -sara is a nominalizer.

Inherently nominal roots do not occur, and other verbal morphology such as -tityiy in (58) may occur. Both transitive and intransitive verbs occur in the impersonal construction. Since intransitive verbs do occur, it makes the -sara nominalizer hypothesis possible only if the 'object nominalizer' is extended to occur with intransitives (a not impossible direction of historical change). Here I gloss -sara as the habitual.

In addition to -sara, the impersonal construction obligatorily includes the modal vánay 'possible' and in most cases also includes a negative.

(57) Néé vánay suuta-sara jirya javúŷ-tà.
 NEG possible wash-HABIT DEMO:CL:NEUT soap-INST
 'It is not possible to wash with this soap'.

(58) Néé vánay siityityiichara jiyu.
 siiy-tityiy-sara
 NEG possible run-going:directly-HABIT here
 'It is not possible to run here'.

(59) Néé vánay sạçchara díiyéra.
 sạçay-sara
 neg possible give-HABIT yet
 'It cannot yet be given'.

(60) Néé vánay tậaryụchara díiyéra sújay.
 tậaryụy-sara
 NEG possible buy-HABIT yet cloth
 'It isn't possible to buy clothes (these days)'.
 (i.e. because it requires money) (CLS022)

Placement of the second position clitic -tiy (see also Section 2.4.1) in (61) suggests that vánay jasúmichara 'possible go:up' constitutes a single constituent. If vánay 'possible' were the predicate of the clause, and jasúmichara (jasúmiy-sara) 'go up' were the subject with -sara as a nominalizer, I would expect the clitic -tiy to follow vánay. That it does not suggests that the

-tiy to follow vánay. That it does not suggest that the entire constituent is the predicate, perhaps lending further support to the -sara habitual analysis, rather than the -sara nominalizer analysis.

(61) Vánay jasúmicharátiy rárichá jiryá roorimyu,
 jasúmiy-sara-tiy rá-richá jiy-ra rooriy-mu
 possible go:up-HABIT-TTY INAN-up DEMO-CL:NEUT house-LOC

vũũryimyaá jasúmiy.
 vũũry-riy-maa
 1PLINC-FRUST-PERF go:up

'If it were possible to go up (into) this house, we would go up.'

In discourse the impersonal construction is used when the identity of the agent is unimportant or is taken as an impersonal 'everyone', or when the speaker wishes to avoid attributing responsibility to the agent.

2.2.2. The anti-causative

There is a lexically restricted anti-causative (ANTCAUS) -y formative (Comrie 1981:161). The y forms a non-causative from a semantically causative, yet morphologically simple root. Although this y relates univalent and divalent predications, in the univalent predication the existence of an agent is not necessarily implied. (Doris Payne 1985a gives more details regarding lexical restrictions and further exemplification.)

(62) Sa-nóóta-máá-rá
 3SG-knock:down-PERF-INAN
 'She/he has knocked it down'.

- (63) Sanóótamyáá.
 sa-nóóta-y-máá
 3SG-knock:down-ANTCAUS-PERF
 'She has fallen down'.

2.2.3. Predicate nominals with object nominalizations

There is a series of suffixes which form nominalizations on the understood objects of transitive verbs (O:NOM):

-s̄i	animate singular
-sanúúy	animate dual
-savay	animate plural
-sara	inanimate or neutral with regard to animacy

Predicate nominal constructions (of either Type 1 or Type 3; Sections 2.1.3 and 2.1.4) containing such a nominalization convey a passive sense. The perfectivity of (65) suggests that the HABITUAL analysis for -sara in these forms is unlikely.

- (64) Nááyaa-s̄i-numaa-ráy.
 stomp-O:NOM:ANIM:SG-now-1SG
 'I am now stomped' or 'I am now a stomped one'.

- (65) Núúcharanumáára.
 núúy-sara-numaa-rá
 burn-O:NOM:NEUT-now-INAN
 'It is now burnt' or 'It is now a burnt thing'.

- (66) Nááyaa-s̄i sa-vicha-jáy.
 stomp-O:NOM:ANIM:SG 3SG-be-PROX2
 'She/he was a stomped one yesterday'.

Although such predicate nominals can convey a passive sense, they are not specifically passive constructions. The sense conveyed is dependent on the type of nominal employed. For example, (67) is the same type of construction as (66), but in (67) a non-passive nominal is used:

- (67) Machíturu savichanúnyanu.
 sa-vicha-núny-jamu
 teacher 3SG-be-IMPF-PAST3
 'She/he used to be a teacher'.

2.2.4. Lexical passives

There are extremely few lexically passive verb roots. Lexical passives normally use Set I clitics to refer to the subject (semantic patient). No Set I clitic occurs in (68) as the subject noun phrase occurs before the auxiliary and verb.

- (68) Vínu Jámuchęęfiy rafiy báatyey.
 Jámuchęęy-niy
 -NIY MALF be:killed
 'Only Jámuchęęy was killed'. (TWO08)

- (69) Rá-baaryij-maa didijaá.
 INAN-be:finished-PERF pudding
 'The pudding has been finished'.

2.3. Auxiliaries

There are three modal auxiliaries which precede and which are phonologically separate from the semantically main verb.⁹ They may take Set I proclitics and various second position clitics (Section 2.4), but cannot carry aspectual, tense, or other verbal suffixes. These are not obviously related to any synchronically semantically main verbs, but such a possibility should not be ruled out until adequate historical reconstruction of the language family as a whole is done.

The 'irrealis' (IRR) modal a is used for futures and imperatives. It does not, however, necessarily occur in other

irrealis contexts. (The verbal suffixal morphology seen in the following examples is discussed in Chapter 5.)

(70) Saanumaa juváatyityiy.
 sa-a-numaa juváay-tityiy
 3sg-IRR-now work-going:directly
 'She/he is now going to go directly along working'.

(71) Néé yaa juváarya.
 yi-a juváay-rā
 NEG 2SG-IRR do-INAN
 'Don't do it!'

Polite imperatives prefix the first person plural inclusive Set I clitic vuurya- to the auxiliary:

(72) Vuuryaamaa jaachpíyaa.
 vuurya-a-maa jaachiy-píiy-yaa
 1PLINC-IRR-PERF heart-VRBLZ-DISTRIB
 'We had better think (about something)'.

The 'malefactive' (MALF) modal auxiliary niy indicates that the action is either realized or not realized to the agent's or protagonist's disadvantage:

(73) Rañiy supatáasiy j̄j̄ta riicyaachifii.
 ray-niy supata-jásiy riicya-jachiy-nii
 1SG-MALF extricate-PROX1 JIITA net-there:from-3SG
 'I tried (unsuccessfully) to extricate him from the net'.
 (LAG025)

In (74) the agent throws a spear at a boa, but the spear does not succeed in knocking the boa out of the tree. Thus, the action of spearing is reported as turning out to the agent's disadvantage.¹⁰

(74) a. Saniy jaachiy j̄j̄ siimu.
 sa-niy sa-imu
 3SG-MALF spear(verb) JIITA 3SG-LOC

b. "tii" Rá-riy puychá-vəə-níí.
 "nothing" INAN-FRUST knock:down-ACHIEVE-3SG

'(a) He speared at him. (b) "tii" It didn't knock him down'. (KT062-063)

The auxiliaries a and niy have variants ra and rafiy, respectively, which occur when the auxiliary is not prefixed with a Set I clitic due to preverbal placement of the subject.

(75) Anita ra rumírya buyəə yííva. (CAH)
 rumíy-rá yi-íva
 IRR spill-INAN manioc:beer 2SG-DAT
 'Anita is going to spill the manioc beer on you'.

(76) Nííniy jííta ra cáəsiivyaətéentiy jíy.
 níí-niy cáəsiiy-vəə-tée-ntiy
 3SG-NIY JIITA IRR terminate-ACHIEVE-EMPH-REP you
 'He is really going to terminate you'.

(77) Vinu Jámuchəəfiy rafiy báátyey.
 Jámuchəəy-niy
 only -NIY MALF be:killed
 'Only Jámuchəəy was killed'. (TWO08)

The irrealis form ra is also used with the third person plural Set I clitic riy- to give the form rirya 'they will'.

The modal auxiliary riy may have softer force than the 'irrealis' a, indicating more the idea of 'let's' or 'we could'. It can be used simply to remind someone of something.

(78) Vəəryi jaachipiíyəə.
 vəəy-riy
 1PL.INC-COULD think
 'We could think'.

(79) vūṛiyiy tūvāṣachu rāmu sanicyeejanu.
 vūṛiy-riy rā-mu sa-nicyee-janu
 1PLINC-COULD listen INAN-LOC 3SG-talk-INF
 'We should pay attention to what he says'.

(80) Vūṛiyiy jiyadyééta riṅnoodamu,
 vūṛiy-riy jiya-dyééta ray-inooda-mu
 1PLINC-COULD go-maybe 1SG-mother-LOC

néetimyúy naaniidíivā jááryiy diidyey.
 néé-tiy-miy naamu-jidíivā diiy-day
 NEG-TIY-NEG 3DL-sick much before-DAY

'Maybe we should go to my mother, before she gets very sick'.

A rather different sense can be imparted by riy, particularly when it occurs with a non-first person inclusive subject. Its other sense is that of 'frustrative', indicating that a particular action is not possible or does not occur, to the agent's or protagonist's frustration.¹¹ This is illustrated in (61) and (74b) above, and in the following:

(81) Nááryiy díivyāṣa ríiva saniisifudáy.
 nááy-riy díiy-vāṣa ra-íva sa-niisiy-mudáy
 1DLEXCL-FRUST see-ACHIEVE INAN-DAT 3SG-eye-anymore
 'We couldn't find his eye again'.

There is another consistently preverbal modal vánay which indicates possibility. This is illustrated in (57) to (61) above and in (82). Unlike the malefactive, frustrative/could, and irrealis modal auxiliaries, vánay is not inflected for subject and might be better thought of as an adverb. (Most other adverbs, however, may either precede or follow the verb.)

- (82) Néé vány sa-suuta.
 NEG possible 3SG-wash
 'It is not possible for him/her to wash'.

2.4. Second position clitics

There are a number of modal/aspectual and pragmatic/discourse structuring clitics which at first glance appear to follow the first constituent of the clause. Thus, they might all be termed 'second position clitics'.¹² However, these clitics actually divide into two classes according to structural placement possibilities, suggesting that there are two structural levels of the 'sentence' or clause. I have termed these levels $\bar{\bar{C}}$ and \bar{C} , as in (42). A given clause need not contain any second position clitic.

2.4.1. Second position clitics within $\bar{\bar{C}}$

The first set of clitics occurs after whatever is the first constituent in $\bar{\bar{C}}$ — that is, after an element in the non-nuclear delimiting position if there is one, after an element in the PM position if there is no delimiting element, or after an auxiliary or the semantically main verb if there is no delimiting or PM element.

Some of the $\bar{\bar{C}}$ second position clitics have modal/aspectual overtones. -Maa indicates 'perfect' when following the verb, but conveys an obligative sense when following any preverbal element (cf. Section 5.8.1). This is particularly so when it co-occurs with the irrealis modal auxiliary a. Compare (83) and (84). (Constituency in line with (42) above is indicated by square brackets.)

- (83) $\bar{C} \bar{C} C$ V
 [[[Rachuutamuumyáara sújay.]]]
 ray-suuta-muuy-maa-rà
 1SG-wash-COMPLT-PERF-INAN cloth
 'I have finished washing the clothes'.
- (84) $\bar{C} \bar{C} C$ AUX V
 [[[Vuryaamaa suutamúrya sújay.]]]
 vurya-a-maa suuta-muuy-rà
 1PLINCL-IRR-PERF wash-COMPLT-INAN cloth
 'We must finish washing the clothes'.

Similarly, -numaa is best translated as 'now' and generally imparts an imperfective sense when following the verb. It may, however, co-occur with the COMPLETIVE (COMPLT) verbal suffix -muuy as in (86) which has close to a perfective meaning (cf. Section 5.8.6).

- (85) $\bar{C} \bar{C} C$
 [[[Radyiityarúufumaa parichédyerya.]]]
 ray-díiy-ta-rúuy-numaa parichéy-day-rà
 1SG-die-TRNS-POT-now finally-DAY-INAN
 'I'm about to die with it (a wound)'. (KT008)
- (86) $\bar{C} \bar{C} C$
 [[[Ránúumyuufumaa rooriy.]]]
 rá-núuy-muuy-numaa
 INAN-burn-COMPLT-now house
 'Now the house has finished burning'.

It is not clear whether -numaa imparts any extra modal force as -maa does when it follows a modal auxiliary or other preverbal element.

- (87) $\bar{C} \bar{C} C$ AUX V
 [[[Vuurya-a-numaa jaachipiíyaa]]]
 1PLINCL-IRR-now think
 'We are now going to think'.
- (88) $\bar{C} \bar{C} C$ Adverb AUX V
 [[[Mityanumaa jíryaa nicyeejáy vídyajaréé.
 mitya-numaa jíryey-a nicyee-jáy vídya-jaréé
 only-now 2PL-IRR talk-PROX2 sunlight-under
 'From now on you will only chirp on bright days'.

In (89) -numaa occurs on a non-nuclear delimiting (time) element:

- (89) \bar{C} \bar{C} C
 [T̄aripyú jif̄uvaryanumaa, [[rásuutyityiy.]]]
 jif̄uvay-ra-numaa rá-suuy-tityiy
 time arrive:late-CL:NEUT-now INAN-sound-going:directly
 'Some time later, it (the rain) approaches sounding'. (KTO36)

In (90) -numaa occurs on a preverbal subject pronoun and in (91) on a preverbal object pronoun. Both of these pronouns are in the PM position.

- (90) \bar{C} \bar{C} C
 [[Níinumaa j̄īita [nuuseenu s̄ubivaj̄u v̄arintidyey.]]]
 níi-numaa nuusiy-janu sa-j̄ubivaj̄u v̄ariy-ntiy-day
 3SG-now JIITA cut-PAST3 3SG-in:place:of then-REP-DAY
 'He now cut in place of the other one (i.e. they took turns)'. (MMO74)

- (91) \bar{C} \bar{C} C
 [[Níi-numaa j̄īita [sa-quiiv̄īchu-ntiy.]]]
 3SG-now JIITA 3SG-deceive-REP
 'He deceived him again'.

Other modal clitics which have the same distribution as -maa and -numaa include the conditional/adverbial/relative clause particle -tiy (glossed simply as TIY), and the 'contrast' particle -niy (glossed as NIY). Use of -niy often (though not exclusively) indicates single or double focus contrast (Chapter 6). Due to its pragmatic function, -niy occurs only after preverbal elements and does not occur after a semantically main verb. However, since it always occurs after the first element in \bar{C} , it is still a \bar{C} clitic. All these clitics may co-occur if a particular combination is not semantically anomalous. Example (92) illustrates the \bar{C} clitics

-numaa, -tiy and -niy occurring after a time setting in the non-nuclear delimiting position. Example (93) illustrates the \bar{C} clitics -tiy and -niy occurring after a locational setting in the non-nuclear delimiting position.¹³ Example (94) illustrates the \bar{C} clitic -niy occurring after a free pronoun in the delimiting position, co-referential with the subject of the clause (the subject itself occurs in the preverbal PM position).

(92) \bar{C} \bar{C} C
 [T̄aripyunumáatifiy, [[naanítay jíí síiva...]]]
 t̄aripyu-numaa-tiy-niy naada-jítay sa-íva
 time-now-TIY-NIY 3DL-say JIITA 3SG-DAT
 'After a while, they two said to him...'. (KT020)

(93) \bar{C} \bar{C} C
 [Múúfiyiy jaátuunudee [[s̄uunúúntyiy.]]]
 múúy-niy-tiy jaá-tuunu-dee sa-j̄umúúy-ntiy
 there-NIY-TIY water-side-DIM 3SG-look-REP
 'When there beside the water, he looked also'.

(94) \bar{C} \bar{C} C
 [Níiniy [mucho-jimiyiy-baacheenu [rafiy jarupadooda.]]]
 níi-niy jarupanu-jada
 3SG-NIY musmuqui-eat-orphan MALF ruin-PAST3
 'He (it was), the Musmuqui-eaten-orphan ruined (everything)'.
 (LX048)

When conditional clauses serve a delimiting function for another predication or clause, they consistently precede that clause. Conditional clauses are marked by the clitic -tiy following the first constituent of the conditional clause (here, -tiy cannot be said to follow the entire first constituent of the main \bar{C} clause which would be equivalent to the entire conditional clause; see Section 2.11 for further discussion of complex sentences).¹⁴

(95) \bar{C} \bar{C} \bar{C} C Adverb AUX V
 [[[Néetimyú yaa jimyiy]]]
 néé-tiy-mu yi-a
 NEG-TIY-NEG 2SG-IRR eat

\bar{C} C
 [[ramyusiyáá ríiva jiy.]]]
 ray-musiy-yaa ra-iva
 1SG-hit-DISTRIB INAN-DAT you

'If you don't eat, I'm (going to) hit you for it'.

Examples (96) through (100) illustrate use of \bar{C} clitics when there is no element outside the \bar{C} or C clause. Thus, the \bar{C} clitic simultaneously follows the first element in the \bar{C} and \bar{C}/C clauses. Example (96) illustrates the \bar{C} clitic -niy following a preverbal element in the PM position.

(96) \bar{C} \bar{C} C
 [[Núúfiy jííta [raa juváarya jiryooriy.]]]
 núúy-niy juváay-rà jiy-rooriy
 1PLEXCL-NIY JIITA IRR make-INAN 2SG-house
 'We will make your house'. (DAV127)

Examples (97) through (99) illustrate occurrence of \bar{C} clitics after an auxiliary within a conditional clause. As mentioned above, conditionals may serve a delimiting function for their main clauses, but even within the conditional clause there is syntactic structuring.

(97) \bar{C} \bar{C} C AUX V
 [[[Vuryáátiy jasúmiy]]] ...
 vurya-a-tiy
 1PLINC-IRR-TIY go:up
 'If we go up...'

(98) \bar{C} \bar{C} C AUX V
 [[[Vurya \bar{a} numáatiy jasúmiy]]] ...
 vurya- \bar{a} -numaa-tiy
 1PLINC-IRR-now-TIY go:up
 'When we go up...'

(99) \bar{C} \bar{C} C AUX V
 [[[Vúryityiy jasúmiy]]] ...
 vúry-riy-tiy
 1PLINC-FRUST-TIY go:up
 'If we were going up...'

Example (100b) illustrates use of a \bar{C} clitic following a semantically main verb. The clause is a conditional (though it is not as clear to me that it performs a delimiting function when it follows its main clause).

(100) a. Nútyaranítyiy jivyáata,
 nútyara-niy-tiy jiy-vaata
 how-NIY-TIY 2SG-want
 'Like this you want it,

b. \bar{C} \bar{C} C
 [[[jivyáatatiy jáaryiy raarya.]]]
 jiy-vaata-tiy raay-ra
 2SG-want-TIY very fall:down-CL:NEUT
 'if you want a good shooter (blowgun)'. (MB073)

2.4.2. Second position clitics in \bar{C} .

The first group of second position clitics follows whatever is the first constituent within \bar{C} . The second group of second position clitics is restricted to follow the first element in \bar{C} . That is, \bar{C} clitics may follow a preverbal element in the PM position, an auxiliary, or the semantically main verb. They do not, however, follow elements in the non-nuclear delimiting position. These include -dyéeta 'maybe', the yes/no question particle -viy (also discussed in Section 2.8.1), and the discourse structuring clitic jíita (or

variant jii; Section 2.4.3 and Chapter 6). Jiita is phonologically cliticized to the preceding element, but by orthographical convention it is written as a separate word.

That the distribution of \bar{C} clitics is not determined relative to the first constituent in \bar{C} is shown in (92) above and in (101). Note that in (101) there is a resumptive reference within the \bar{C}/C clause referring to the locative phrase found in the non-nuclear delimiting position (both the \bar{C} clitic and the resumptive reference are underlined in the following example):

- (101) \bar{C} \bar{C} C
 [Rooriy-chasiy [[sa-sichichij jiita rumu-siy-yu.]]]
 house-above-AB 3SG-throw:self JIITA there-AB-CORO
 'From the house top, he threw himself from there'. (LX003)

That placement of \bar{C} clitics is determined relative to the first constituent in \bar{C} and not the first word is shown in (102):

- (102) \bar{C}
 [Rumuujuyuy ratyéeryiy vichijuy jiita
 ru-nuuy-juy ray-téeryiy vichijuy
 two-CL:ANIM:DL-DL 1SG-brother:of:male cousin-DL JIITA
 C
 [joota yaada.]]
 jiya-jada
 begin go-INF

'Two of my cousins began to go'. (IS002)

The following examples further illustrate occurrence of \bar{C} second position clitics following a preverbal element in the PM position. When \bar{C} and \bar{C} second position clitics co-occur following the same element, \bar{C} clitics precede.

(103) \bar{C} C
 [Jaḥdyééta [saḥtóósiy jaḥmura jivyimújy.]]
 jaḥ-dyééta sa-ḥatu-jásiy jaḥmu-ra jiy-viimu-jy
 water-maybe 3SG-drink-PROX1 big-CL:NEUT COR-inside-AL
 'Water maybe, he drank a lot (of it) inside of him'. (LAG042)

(104) \bar{C} C
 [Jiyudyééta [núfiḥa machoq.]]
 jiyu-dyééta núfi-a
 here-maybe 1PLEXCL-IRR stay
 'Here maybe we will stay'.

(105) \bar{C} C
 Nibi, nibi, [siḥteenu jifiviy [jibeenumii
 jiy-niy-viy jimyiy-janu-nii
 ocelot ocelot really 2SG-NIY-QUEST eat-PAST3-3SG
 rajéḥbyey?]]
 ray-jáḥy-bay
 1SG-father-deceased

'Ocelot, ocelot, was it really you (who) ate my
 deceased father?' (LY003)

(106) \bar{C} C
 [Nii-numaa jiita [sijetyḥa-nuvḥḥ-ntiy-riy.]]
 3SG-now JIITA attack-on:arrival:here-REP-3PL
 'He now began to attack them on arrival'. (Previously,
 he had been attacked.) (DAV041)

(107) \bar{C} C
 [Niiniy jiita [sámirya jamicyu vḥḥjy.]]
 nii-niy sámirya jamicyu vḥḥy-jy
 3SG-NIY JIITA good-CL:NEUT friend 1PLINC-AL
 'He, indeed, is a good friend to us'.

Examples (108) through (110) illustrate use of \bar{C} clitics after
 an auxiliary, which is simultaneously the first element in both the \bar{C}
 and C clauses.

(108) \bar{C} C AUX V
 [[Ȳaadyéeta vicha tarudamu.]]
 yi-̄a-dyéeta taruda-mu
 2SG-IRR-maybe be someday-LOC
 'Maybe you will be (a teacher) some day'. (CLS052)

(109) \bar{C} C AUX V
 [[Naanaaviy jantyuuy yúñooda yúúva?]]
 naada-̄a-viy yi-júñooda yi-úva
 3DL-IRR-QUEST have:compassion 2SG-mother 2SG-DAT
 'Would your mother have compassion on you?'

Jíita rarely co-occurs with the 'irrealis' auxiliary ̄a since jíita most frequently (in its non-contrastive function) indicates a realized event or existing state of affairs. They may co-occur, however:

(110) \bar{C} C AUX V
 [[Sáánaanumaa jíita junúufíi jifu
 sáána-̄a-numaa junúuy-níi jiy-nu
 2DL-IRR-now JIITA see-3SG DEMO-CL:ANIM:SG
 javanu-dee-ra.]]
 animal-DIM-CL:NEUT
 'You are now going to see these little animals'.

Examples (111) through (115) illustrate use of C clitics after the semantically main verb:

(111) \bar{C} \bar{C} C V
 [Núpora-ntiy [[sa-sitya-dyéeta díiye-tée-nuuy.]]]
 night-REP 3SG-follow-maybe today-EMPH-1DL
 'At night again, he will maybe follow us today'. (IS126)

(112) \bar{C} C
 [[Jiquivúdyéeta?]]
 jiy-quivúdyéeta
 2SG-deceive-maybe
 'Are you perhaps deceiving (someone)?'

- (113) \bar{C} C
 [[Sadiijémyaaviy?]]
 sa-díiy-jáy-maa-viy
 3SG-die-PROX2-PERF-QUEST
 'Did he die yesterday?'
- (114) \bar{C} C
 [[Rachqodáásiy jííta muñuviiimújñníi.]]
 ray-sqóniy-jásiy mufu-viimu-jñ-níi
 1SG-lift-PROX1 JIITA canoe-inside-AL-3SG
 'I lifted him into the canoe'. (LAGO22) (CAH)
- (115) \bar{C} C AUX V
 [[Sa-niy jichitiy jííta.]]
 3SG-MALF poke JIITA
 'He poked (it)'.

There are two other second position clitics for which I have insufficient data to determine whether they are \bar{C} or C clitics. All the examples I have from elicitation and text suggest that placement might be determined relative to \bar{C} . These are -nta and -niita. The former has the sense of 'it seems' (the speaker believes something is the case but without absolute certainty). The meaning of the second remains unclear. These may co-occur, as illustrated in (116). Recall that dual affixes are used for women who have borne children. This accounts for the 'feminine' gloss in (117) through (119).

- (116) \bar{C} C
 [Níi-nta-niita [nicýee.]]
 3SG-BELIEVE-NIITA talk
 'It appears that he is talking'.
- (117) \bar{C} C
 [Naada-nta [maasa.]]
 3DL-BELIEVE sit
 'She, I believe, is sitting'.
- (118) \bar{C} C
 [[Naada-maasa-nta.]]
 3DL-sit-BELIEVE
 'I believe she is sitting (but I don't know for certain)'.

(119) \bar{C} C
 [[Naadamaasanújénta tááriy.]]
 naada-maasa-núúy-jáy-nta
 3DL-sit-IMPF-PROX2-BELIEVE before
 'Yesterday it appeared that she was sitting'.

(120) \bar{C} C
 [[Sasiityaniíta davyúúy.]]
 sa-siitya-niíta day-vúúy
 3SG-follow-NIITA DAY-1PLINC
 'He is following us!'

2.4.3. Constituency of auxiliary plus main verb

There is an interesting fact about placement of jiita (and jií) which distinguishes it from other \bar{C} second position clitics. As (110) above shows, it can follow auxiliaries and precede the semantically main verb. However, there are other examples where it follows the auxiliary-plus-verb complex, as in (115) above and the following.¹⁵

(121) AUX V
 rəə tʰúchu jiita yííva
 ray-ə yi-íva
 1SG-IRR tell JIITA 2SG-DAT
 "jiryumátyánimyeetée váridyeryéy."
 jiy-rumiy-tániy-maa-tée váriy-day-ráy.
 2SG-spill-CAUS-PERF-EMPH then-DAY-1SG

'I will tell you indeed, "you have made me spill (it)"'.
 (LX036)

(122) AUX V
 Saniy júúy jií rjichantiy "tii".
 sa-niy ra-jjicha-ntiy
 3SG-MALF fall JIITA inan-upon-REP
 'He fell upon it again "tii"'. (LX009)

This suggests there is a difference in constituency between examples like (110) versus those like (115), (121) and (122). Two possible analyses present themselves. First, it is clear that when there is an

element in the PM position, if jiita occurs in the clause it must follow that element. Based on this one might hypothesize that whenever jiita occurs, it in fact is following an element in the PM position. Thus, in examples (110), (115), (121), and (122) the auxiliary and/or main verb have been 'moved' into the PM position.

There are at least three difficulties with this hypothesis. First, there is a difference in pragmatic force when jiita follows an element which is clearly in the PM position, versus when it follows the verb. After a preverbal noun phrase or oblique it indicates some type of focus of contrast (see Chapter 6 and Sections 2.9 and 2.10). When it occurs after the verb, it indicates progression through a text. In this usage some speakers employ it to outline the 'backbone' (in Robert Longacre's terminology) or the major event line of a narrative text, while others use it to indicate progression from one major episode (particularly in narrative-oriented text) or one major thematic paragraph (particularly in expository or hortatory-oriented text), to another. It might be argued that in its function of showing progression in through the thematic or main event line structure of a discourse it is also evidencing a type of contrast in the sense that the speaker is indicating 'I as speaker am no longer talking about X, but am now starting a new thematic unit'. However, in the progression function its force is not necessarily contrastive. For example, clause (114) above is clearly not contrastive in the text from which it is taken (see Appendix III).

Second, jiita directly follows an auxiliary if there is another clitic such as -numaa also cliticized to the auxiliary as in (110).

We would not expect this to be true if placement of jiita was dependent SOLELY on occurrence of the auxiliary element in the PM position. Third, if the auxiliary and verb are separate constituents, as suggested by the constituency diagram in (42) and as suggested by placement of all other second position clitics, how is it that placement of jiita ignores the auxiliary in sentences like (121) and (122) and occurs after the semantically main verb?

A second hypothesis is that there are potentially two levels of structural representation -- what we might think of as more abstract and more surface constituency structures. Except for jiita, placement of all \bar{C} and \bar{C} second position clitics is determined at the more abstract level represented in (42). If there is no other clitic following an existing auxiliary in the clause, restructuring takes place, such that at the surface the auxiliary and verb form a single constituent for purposes of jiita placement. This restructuring is represented in (123).

(123) C
 [[AUX=V] S O₁ O₂]

However, if another second position clitic does occur after an existing auxiliary, restructuring is blocked. Jiita will then follow the first constituent at the more surface level, which is the auxiliary-plus- \bar{C}/\bar{C} clitic.

2.5. Causation and desideration

According to VIN, causativized verbs follow the causativizing verb. There is a verb jipaa or jupaa 'to send' which can be used with causative force. It may precede or follow a nominalized verb which encodes the caused event. Jipaa or jupaa is not a strong causative with the sense of 'to make' and it always implies movement. But insofar as 'sending to X' implies that one is caused to 'do X', this verb can be seen as a causative. Also, when verb forms become complex (e.g. with addition of locative, movement, or aspectual suffixes), the language consultant has occasionally resorted to use of jupaa rather than use a morphological causative with -taniy (Section 5.11). In (124) a sense of movement is not strange since one always goes to the stream, river, or lake to bathe—it is not done in the house or living area.

(124) Janááfu rjipaaníí.
janááy-mu ray-jipaa-níí
bathe-CL:ANIM:SG 1SG-send-3SG
'I send him to bathe'.

cf. Raanaátyánfíí.
ray-janááy-taniy-níí
1SG-bathe-CAUS-3SG
'I make him bathe (himself)'. (Not: *'I bathe him'.)

In addition to this analytic causative strategy, there is a morphological causative strategy involving the verbal suffix -taniy. This, along with concomitant Set II clitic reference to the causee, is discussed in Section 5.11. Certain valence increasing formatives also have causative force (Section 5.10). 'Anti-causative' morphology is discussed in Section 2.2.2.

The desiderative verb vaata 'want' most neutrally precedes its desiderative complement. The alternative order is possible, however. If the subjects of both verbs are coreferential, the desiderative complement is usually nominalized with the infinitival/participial suffix -janu/-jada (INF) and most neutrally occurs without any Set I clitic (See Section 5.1.1 for further discussion of infinitival complements).

(125) Savaṭata murraṭayanu.
 sa-vaṭata murraṭay-janu
 3SG-want sing-INF
 'She/he wants to sing'.

(126) Savaṭata jibyedanif quiiva.
 sa-vaṭata jimyiy-jada-nif
 3SG-want eat-INF-3SG fish
 'She/he wants to eat the fish'.

(127) Savaṭata jibyeeda Rospitanif quiiva.
 sa-vaṭata jimyiy-jada Rospita-nif
 3SG-want eat-INF Rospita-3SG fish
 'Rospita wants to eat the fish'.

Alternatively, the coreferential Set I clitic jiy- may occur.

Compare (128) with (125) above:

(128) Savaṭata jimirraṭayanu.
 sa-vaṭata jiy-murraṭay-janu
 3SG-want COR-sing-INF
 'She/he wants to sing'.
 OR: 'She/he wants his/her (own) singing'.

If the desiderative complement precedes the main verb vaata, the main verb takes the coreferential marker:

- (129) Samurraḡayanu jivyaḡata.
 sa-murraḡay-janu jiy-vaḡata
 3SG-sing-INF COR-want
 'She/he wants to sing'.
 OR: 'His/her (own) singing she/he wants'.

If there is a change of subject between the two clauses, non-coreferential Set I clitics are used on non-nominalized forms of both verbs:

- (130) Sa-vaḡata sa-murraḡay.
 3SG-want 3SG-sing
 'She/he_i wants him/her_j to sing'.

There is also a desiderative/potential/optative verbal suffix -ruḡy. Use of this suffix rather than the verb vaḡata is particularly likely when the understood subjects of both the desiderative predication and the desiderative complement are coreferential (Section 5.12).

2.6. Parataxis

Derbyshire (1979) has speculated that heavy use of rightward parataxis may be a predisposing factor towards development of object initial languages, as subject noun phrases tend to be juxtaposed to the ends of clauses. I use the term 'parataxis' in the sense of juxtaposition of phrases referring to the same entity, but without a coordinating conjunction. In Yagua there may or may not be a pause between the juxtaposed phrases. Although this type of phrasal parataxis certainly occurs in Yagua, it is not statistically prevelant. In one study of two texts (one written and one oral) comprising a total of 244 clauses, 9% contained instances of

rightward phrasal parataxis. Of these, six clauses involved parataxis of subject phrases, one of an object phrase, and fifteen of oblique phrases.

There are five primary functions of rightward phrasal parataxis: modification, clarification, coordination (Section 2.10), pragmatic 'emphasis' (Chapter 6), and as a standard question structure (Section 2.8 and Chapter 6). Example (131) illustrates use of parataxis in a modification function when a participant is introduced into a discourse.¹⁶

- (131) Siitj̄i j̄īta t̄īquii nijyaam̄iy, //
 sa-jit̄ī
 3SG-arrive:here JIITA one:ANIM:SG person
- máay ráp̄p̄ryá, // panadéro, //
 ráp̄p̄y-ra
 stranger no:good-CL:NEUT bread:seller
- jiryátiy vuryītáy v̄p̄niqueejadamúj̄dañii
 jiy-ra-tiy vurya-j̄itay v̄p̄y-niquee-jada-mu-j̄y-day-nii
 DEMO-CL:NEUT-TTY 1PLINC-say 1PLINC-speak-INF-LOC-AL-DAY-3SG
- p̄a t̄áaryutȳī, //
 t̄áaryutya-̄i
 bread sell-NMLZR:ANIM:SG
- Indianamu vich̄īcó //
 Indiana-mu vicha-̄i-có
 Indiana-LOC be-NMLZR:ANIM-CO

'A person arrives, a mestizo, a panadero, which in our language we call him a bread seller, a resident of Indiana'. (PCH003-005)

The following example illustrates use of parataxis for clarifying the identity of the object of the postpositional complex -úva-siy (DAT-AB). Sa- in sataáryī also refers to the same participant who is encoded as the object of the postposition.

(132) Saráátyiiyáasáanu jííta
 sa_i-rááy-tíi-yáa-sa-janu
 3SG-jump-ITER-DISTRIB-upwards-PAST3 JIITA

 sataáryii yivasiy, / nuuva.
 [sa_i-taáryii]_j yi-iva-siy
 3SG-brother COR-DAT-AB toucan

'[His_i brother]_j went jumping (up into a tree) from where he_i was, the toucan_i'. (FSQ023)

Three basic intonational patterns may occur on rightward paratactic phrases. First, both the phrase immediately preceding the paratactic phrase and the paratactic phrase itself may be treated as two final phrases (cf. Section 1.6). A pause occurs between the two phrases. This is by far the most common pattern. As discussed in Section 1.6, phrase-final intonation will either go up and stay up if the final syllable of the phrase carries inherent high or neutral tone, or will go down following the intonational pivot if the final syllable has inherent low tone. Both of these patterns are illustrated in (131) and (132) above.

Second, the paratactic phrase (or phrases) may be treated as a single phonological phrase with the preceding portion of the clause. No apparent pause or intonational pivot precedes it. The paratactic phrase in (133) is coodiy riinuva 'snake's back'. Although the tone rises slightly on muuy 'there', it is not as exaggerated as with phrase-final intonation.

(133) Sasíchiy sáájíisíy muuy coodiy riinuva. //
 sa-síy-siy sa-jájíi-siy riinu-va
 3SG-run-DEPART 3SG-front-AB there snake back-DAT
 'He runs before him there, on the snake's back'. (FSQ042)

- (134) Rápudoojãanumuyãã rumú sapádayiimusiý. //
 rá-pudoo-jãã-numuyãã sa-páday-viimu-siy //
 inan-spray-ITER-going:aimlessly there 3SG-stomach-inside-AB
 'It sprayed all over (from) there, out of his stomach'. (FSQ110)

Third, the paratactic phrase (or phrases) may be treated phonologically as non-final. There may be a pause but no intonational pivot occurs before the paratactic phrase regardless of the inherent tones occurring before the paratactic phrase. This is illustrated in (135) and (136).

- (135) Siiviryiitíy jiyu / vuryiimuntiy.
 sa-jiviy-ríi-tíy vurya-imu-ntiy
 3SG-arrive:here-enroute-PAST2 here 1PLINC-LOC-REP
 'He arrived here and left shortly, to us again'. (PCH053)
- (136) Niintyée súityée jiyuday, / nuuva.
 níi-niy-tée súy-tée jiyu-day toucan
 3SG-NIY-EMPH sing-EMPH here-DAY
 'He (it is who) is singing here, the toucan'. (FSQ129)

2.7. Negatives and modals

2.7.1. Negatives

VIN states that in verb initial languages, negatives always precede the verb. In Yagua, the dominant negative particle née occurs initially in the clause, following any conjunctions if such occur. The scope of negation can be an entire clause or a constituent of the clause.

- (137) Née ravyaata buyãã.
 ray-vããta
 NEG 1SG-want manioc:beer
 'I don't want manioc beer'.

- (138) Néé yąą juváárya.
 yi-ą juvááy-rà
 NEG 2SG-IRR touch-INAN
 'Don't touch it!'.
 (139) Néé nuírya jimichara.
 nuíy-ra
 NEG burn-CL:NEUT food
 'The food is not burnt'.
 (140) Nééviy sajúuy roorichiy.
 néé-viy sa-júuy rooriy-siy
 NEG-QUEST 3SG-fall house-AB
 'Didn't he fall from the house?'

If just a constituent is negated, it generally (but not necessarily) precedes the main verb. Compare (141) with (137) above.

- (141) Néé buyąą ravyąąta; sáboo-jaą ravyąąta
 NEG manioc:beer 1SG:want sweet-CL:liquid 1SG:want
 'It's not manioc beer I want; soda pop I want.'
 (142) Néé váneera sa-rupíiy.
 NEG rapidly 3SG-walk
 'She does not walk rapidly'. (But presumably she does walk.)

The only exception to non-initial position is found in negative comparative and negative contrastive constructions where néé can (but need not) appear after the compared or contrasted element.

- (143) Anita néé dáátya jááryiy riimusiy.
 ray-imu-siy
 NEG know much 1SG-LOC-AB
 'Anita doesn't know as much as I'.
 (144) Alchico néé rą jiya.
 NEG IRR go
 Estela-juy jííta rą jiya-day.
 -DL JIITA IRR go-DAY
 'Alchico is not going, but Estela is going'.

There are negative suffixes -ta or -tya (occasionally -vitya) and -múy, which may or may not precede the main verb. These suffixes may be restricted to Vainilla (V) and Cahocuma (CAH) dialects and possibly represent older strategies which are now lost in the San José de Loretoyacu (SJL) dialect. Our SJL consultant did not recognize -múy as a negative (only néé), whereas our CAH consultant of approximately the same age did. The negative suffixes also occur in texts given by older speakers of the V dialect.

Text-based study shows that -ta, -tya, and -múy occur primarily (though not exclusively) in notionally or structurally dependent/subordinate constructions, though néé also occurs in these contexts. -Tya (-vitya) may also negate constituents of clauses (see Payne and Payne, in progress, for more extensive discussion).

(145) Sıteenunitya jimyudachara casijyotára
 sıteemu-niy-ta jiy-muđay-sara casiy-jo-ta-rà
 really-NIY-NEG 2SG-scrape-HABIT snail-CL:round-INST-INAN
 'Isn't it true that you scrape it with a piece of
 snail (shell)?' (LB202)

(146) Radiıtya sııva.
 ray-dııy-ta sa-ıva
 1SG-see-NEG 3SG-DAT
 'I haven't seen him/her'.

(147) Satuvaáčhutya siimu.
 sa-tuvaáčhu-tya sa-imu
 3SG-listen-NEG 3SG-LOC
 'He didn't listen to him'.

The particle -múy is suffixed to clause-initial conjunctions or preverbal constituents. It may occur in conjunction with néé.

- (148) Rámútimyúy néé vánay jǵrichara.
 rá-mu-tiy-múy jǵriy-sara
 INAN-LOC-TTY-NEG NEG possible grab-HABIT
 'Therefore it isn't possible to grab (it)'.
- (149) Rámunimyúy núújǵityuujésiy sámiy. (CAH)
 rá-mu-niy-múy núy-jǵityuuy-jásiy
 INAN-LOC-NIY-NEG 1PLEX-rest-PROX1 well
 'Because of this we haven't rested well'.
- (150) Rǵicánurya saǵǵá, dantyamúy ráǵaavya jiyu.
 ray-jǵicánuy-rà dantya-múy rá-ǵaavya
 1SG-like-INAN papaya although-NEG INAN-grow here
 'I like papaya, although it doesn't grow here'.
- (151) Ráy jǵǵita-múy sítyǵáásiy rájuuséé jásuuchee;
 sítya-jásiy rájuu-see
 1SG JIITA NEG dig:up-PROX1 much-CL:stick manioc
 Celina jǵǵita sítyǵáásiy rájuu-séé.
 JIITA dig:up:PROX1 much-CL:stick

'I did not dig up a lot of manioc; Celina did dig up a lot'.

Additionally, there is a negative infix *y* which is an integral part of the negative conjunction 'so that not'. The conjunction is etymologically complex, consisting of a Set I clitic, the negative *y*, plus -numaa.¹⁷

- (152) ráǵnumaa rúpa ráviimu ruujyo.
 rá-y-numaa rá-viimu ruuy-jo
 INAN-NEG-now stick INAN-inside fry-CL:place
 '...so that it won't stick inside the frying pan'.
- (153) Jityoda yǵǵa rǵǵachatǵiy ránuubéjǵ,
 yi-ǵ rǵǵacha-tǵiy rá-nube-jǵ
 worms 2SG-IRR cut-ITER INAN-mixed:up:in-AL
 naǵǵnumaa dáátya jidyééchaada.
 naada-y-numaa jiy-dééchaada
 3DL-NEG-now know 2SG-mother:in:law

The worms you are going to chop up to mix in, so that your mother in law won't know.' (HC019)

2.7.2. Modals

VIN states that modals always precede the main verb. Here I use the term 'modal' in the sense of formatives which primarily indicate something about speaker attitude such as certainty, sarcasm, warning, wish, potentiality, frustration, or expressing degrees of obligation. In Yagua there are five morpho-syntactic sets of formatives which are primarily 'modal' in meaning. These are the modal auxiliaries (Section 2.3), the preverbal modal vánay 'possibility', the verbal potential/optative suffix -rúy (Section 5.12) and the verbal suffixes -taata 'debititive' and -vaa 'action (not) achieved' (Section 5.7), and clause-final speaker attitude clitics. I do not include interrogatives versus declaratives as a type of 'speaker attitude' difference. (This seems to me to be primarily a performative difference, though it may shade into speaker attitude.)

As discussed in Section 2.3 the malefactive, irrealis, and frustrative/could auxiliaries are semantically modal and precede the verb. The modal vánay indicating possibility is also preverbal. This is illustrated in Section 2.2.1 and examples (82) and (148) above. Unlike the modal auxiliaries, vánay cannot be inflected for subject with Set I clitics.

Clause final speaker attitude clitics include -jũũ, -cô, -cũ, and -cáy. Their exact meanings have so far evaded us. They probably indicate degrees of certainty, warning, sarcasm, and such like (see Payne and Payne, in progress, for more discussion; there is no 'evidential' system in Yagua to indicate degrees of certainty in terms of first hand versus second hand knowledge, for example.)

- (154) Néé raamaa jatu daryájuu.
 ray-a-maa darya-jũũ
 NEG 1SG-IRR-PERF drink thus-JŨŨ
 '(Is it possibly the case that) I'm not going to drink it like this?' (i.e. Of course I'm going to drink it like this.)
- (155) Savichasara súrya díiyesaarāju tóovacũ.
 sa-vicha-sara súry-ra díiye-saarāju tóo-va-cũ
 3SG-be-HABIT bite-CL:NEUT today-until jungle-DAT-CŨ
 'He is a biting one even until today in the jungle'. (LX036)
- (156) Vafũ-cũ.
 let's:go-CŨ
 'Let's go!'.'
- (157) jiryátiy vuryiítáy vũniqueejadamújudañíi
 jiy-ra-tiy vurya-jítay vũry-niquee-jada-mu-jũ-day-níi
 DEMO-CL:NEUT-TTY 1PLINC-say 1PLINC-talk-INF-LOC-AL-DAY-3SG
 Indianamu víchĩicó.
 Indiana-mu vicha-ĩ-có
 Indiana-LOC live-NMLZR-CO
 '...he is what we call in our language a resident of Indiana'. (adapted from PCH004, 005)
- (158) Naada-suuta-cáy.
 3DL-wash-CAY
 'She is washing, right? / It is true that she is washing?'

2.8. Questions

2.8.1. Yes-no questions

Yes-no questions are formed by suffixation of -viy to the initial constituent of the clause within the scope of C (Section 2.4.2). The initial constituent can be a preverbal element which is being questioned as in (159), an auxiliary as in (160), or the semantically main verb as in (161).

- (159) Jidyeeviy j̄ṽnaachara?
 jiy-deetu-viy j̄ṽnaay-sara
 2SG-daughter-QUEST cry-HABIT
 'Is it your daughter that is always crying?'
- (160) Naanaaviy jántyuy jiryíiva?
 naana-ḡ-viy jiryey-iva
 3DL-IRR-QUEST have:mercy 2PL-DAT
 'Are they going to have mercy on you?'
- (161) Sa-ya-viy Qúiti-mú-j̄ṽ?
 3SG-go-QUEST Iquitos-LOC-AL
 'Did she/he go to Iquitos?'

Alternatively, a second person subject predication may be pragmatically interpreted as a question without cliticization of -viy. No special intonation occurs either when -viy is present or absent.

- (162) Jicháduy?
 jiy-sáduy
 2SG-have:fever
 'Do you have a fever?' (Lit: You have a fever.)

2.8.2. Information questions

Information question words are as follows:¹⁸

- | | |
|------------------|-------------------|
| (163) t̄áḡ(ra) | 'what?' |
| t̄ḡ(ra) | 'where?' |
| núy(tiy) | 'how?' |
| nútyiryivyey(ra) | 'when?' |
| nútyu(ra) | 'what kind?' |
| n̄rriy(ra) | 'how much/many?' |
| ch̄íḡ(ra) | 'who/whose/whom?' |

The element -ra following many of these forms seems to be truly optional in all dialects. It may correspond etymologically to the neutral classifier -ra (Chapter 4).

These forms can occur in combination with postpositions to yield other interrogative words:

(164) tãã(ra)-jù what-AL	'why?' or 'what for?'
chĩĩ-va who-DAT	'to whom?'
nũtichiy nũtiy-siy how-AB	'how?' or 'how from?'

In addition, there is a set of morphologically complex forms meaning 'which' that index the animacy, and if animate, the number of the questioned participant. These etymologically consist of the formative my or mi, a classifier (Chapter 4), plus the formative -ra:

(165) miira	animate singular
mũũuryá	animate dual
mũvyeryá	animate plural
muryará	inanimate

In information questions the question word occurs in the PM position within C. This is evidenced by placement of second position C clitics:

(166) Tããra-dyěeta	vurya-ą	jatu?
what-maybe	1PLINC-IRR	drink
'What might we drink?'		

A very standard question form is to repeat the question phrase or a reduced form of it following the nucleus of the predication (see Section 2.6 and Chapter 6 for additional discussion):

(167) Nũtichiy	nũũeeya	yũsąą,	nũtichiy?
how	1PLEXCL-go	2SG-COM	how
'How can we go with you, how?'			

Participants in any syntactic function can be questioned. There are no differences between subject and object question forms.

- (168) Chįıra jiya tóó-va?
 who go jungle-DAT
 'Who went to the jungle?'
- (169) Tąąara yiváay?
 yi-jiváay
 what 2SG-make
 'What are you making/doing?'
- (170) Chįį jicháąrya quiıriıiquii?
 jiy-sąay-rá
 who 2SG-give-INAN money
 'Who did you give the money to?'

Postpositions are fronted along with questioned items as in (171). When the genitive is questioned, the entire possessed noun phrase occurs preverbally as in (172).

- (171) Muryará vicha-jo-mu sa-ya-jáy Manungo?
 what live-CL:place-LOC 3SG-go-PROX2
 'To what village did Manungo go?'
- (172) Chįį deenu jınaay náávay, chįį deenu?
 who children cry above who children
 'Whose children are crying above, whose children?' (LX049)

Information question words also appear in embedded clauses, again in the preverbal PM position within the embedded clause.¹⁹

- (173) Néé radyéétya [chįıra jiyáąsiy].
 ray-dáátya jiya-jásiy'
 NEG 1SG-know who go-PROX1
 'I don't know who went'.
- (174) Néé sadíiyásiy Juan [chįıra jimyifíıı
 sa-díiy-jásiy jimyiy-níıı
 NEG 3SG-see-PROX1 John who eat-3SG

saquiivā jāṅsychij].
 sa-quiivā jāṅsyy-si
 3SG-fish broil-O:NOM:ANIM:SG

'John did not see who ate his broiled fish'.

The degree to which constituents of complement clauses can be questioned by fronting the questioned constituent to the PM position within the main clause is unclear. This strategy may be limited just to subjects of embedded clauses as in (175).

(175) Miira jidyéetya jibyéesirya?
 jiy-dáátya jimyy-jásiy-rà
 which:ANIM:SG 2SG-know eat-PROX1-INAN
 'Which one do you think ate it?'

In order to question objects of embedded clauses, the object may have to be first 'raised' to the main clause after which a relative clause is formed on the raised object:

(176) Tą́ara jiyeechipíiyaa [jiryátiy rị́béesirya]
 jiy-jaachipíiyaa jiy-ra-tiy ray-jimyy-jásiy-rà
 what 2SG-think DEMO-CL:NEUT-TTY 1SG-eat-PROX1-INAN
 'What do you think I ate?' (Lit: 'What do you think that
 I ate it?')

An alternative strategy to that represented in (175) for subjects and that represented in (176) for objects is to form a direct question by using two morphosyntactically independent clauses:²⁰

(177) Juan jaachipíiyaa: Chį́ra jibyéesifii raquiivā?
 John think who eat-PROX1-3SG 1SG-fish
 'John thinks, "Who ate my fish?"'

2.9. Comparatives and equatives

There are two comparative strategies which vary from speaker to speaker. The most widely used strategy is simple juxtaposition of two clauses, often with jííta in the second clause to show the contrasting relation:

(178) Néé jaꞑmuquiinuquií ráy;
jaꞑmu-quií-nu-quií
NEG big-long-CL:ANIM:SG-long 1SG

jaꞑmuquiinuquií jííta Tomasa.

'I am not tall; Tom is tall'.

Some speakers employ a postpositional construction to encode the standard of comparison.

(179) a. Jááryiy sámíy Anita rayanúju.
 ray-yanúju
very good Anita 1SG-more:than
'Anita is nicer than me'.

OR:

b. Anita jííta jááryiy sámíy rayanúju.
'Anita is indeed nicer than me'.

The first variation in (179a) is pragmatically more neutral. Both (a) and (b) forms conform to the VIN claim that in verb initial languages, the comparative form precedes the standard. However, they contradict the claims of Hawkins' (1983:88) Universal 20 which states that 'if a language has Postp word order, then if the adverb precedes the adjective within the adjective phrase, the standard of comparison precedes the adjective'. (Both 'adjectives' and adverbial modifiers of 'adjectives' are discussed in Chapter 3).

2.10. Coordination and alternative relations

Coordination of phrases and clauses is primarily achieved by juxtaposition or parataxis. However, -ntiy 'repetitive' may occur on the second member of the pair.

- (180) Sa-ya Tomasa. Pedro jiya-(ntiy).
3SG-go Tom. go-(REP)
'Tom is going. (And) Pedro is going (too)'.

-Ntiy is not best thought of as a coordinating conjunction since in other contexts it may convey repetition of an action, sometimes occurring after a lapse of several clauses in text.

Jaaryey 'also' can (but need not) be postposed to the last member of the coordinate pair for the 'and' relation. This is consistent with a verb final and/or postpositional pattern, rather than a verb initial pattern. Jaaryey and -ntiy do not co-occur.

- (181) Anita saṣṣaniy-yaṣṣ, sa-tiṣṣa jaaryéy.
Anita shout-DISTRIB 3SG-play also
'Anita is shouting (and) she is playing also.'

- (182) a. Sa-ya Pedro,
3SG-go
b. sa-váturuy jaaryéy.
3SG-woman:with:children also
'a. Pedro is going, b. his wife also'.

Use of sa- in (182b) on saváturuy rather than the coreferential clitic jiy suggests that (182b) is a separate clause from (182a), with ellipsis of the verb (cf. Section 5.1.1 on what is within the scope of a single clause).

Juxtaposition of clauses is also used to express the 'but' relation, usually with preverbal placement of some constituent in the preverbal PM position plus use of jííta following one or both of the fronted contrasted phrases:

(183) Ratyééryatu vicha játarya vichaanumu;
 ray-tááryatu vicha-janu-mu
 1SG-sister live other live-INF-LOC

ráy jííta vicha jírya vichaanumu jíyu.
 jíy-ra vicha-janu-mu
 1SG JIITA live DEMO-CL:NEUT live-INF-LOC here

'My sister (without children) lives in another country;
 but I live here in this country'.

There is no specific conjunction or particle which indicates alternatives (the 'or' relation). The 'or' relation has proved almost impossible to elicit. When asked an alternative question in Spanish, our less bilingual consultants would inappropriately reply 'si' (yes), suggesting that the alternative relation is not a well recognized relation in their native language. Similar phenomena have been reported to us by other linguistic researchers in the Amazon area. The alternative relation is encoded by juxtaposition of clauses, with or without fronting of any phrases. The word várimyaa(ta) may help reinforce the alternative idea, but this is not certain.

(184) Tóó-va-mú-jù sa-ya.
 jungle-DAT-LOC-AL 3SG-go

Jínivyimúdyéeta samaasa.
 jíniy-viimu-dyéeta se-maasa
 hammock-inside-maybe 3SG-sit

'To the jungle he went. (Or) maybe in the hammock
 he's sitting'.

(185) Tóó-va-mú-jù sa-ya.
jungle-DAT-LOC-AL 3SG-go

Várimyaatá jínivyiimú sa-maasa.
jíniiy-váimu
hammock-inside 3SG-sit

'He went to the jungle. (Or) maybe he's sitting in
the hammock'.

(186) Nútyaranítyiy jivyaata, jaamudasiiy,
nútyara-niiy-tiiy jiiy-vaata jaamu-dasiiy
what-NIIY-TIIY 2SG-want big-CL:thin:pole

várimyaa pasidyasidyey?
pasiiy-dasiiy-day
maybe little-CL:thin:pole-DAY

'What kind (is it) you want - a thick (blowgun), (or) maybe
a thin (blowgun)?' (MB058)

2.11. Complex sentences

Haiman and Thompson (1984) have argued that there is no sharp distinction between 'subordinate' and 'main' clauses in universal grammar. Neither is there a simple continuum between 'fully subordinate' and 'fully main' clauses given that a variety of functions and parameters differentiate types of clause combining. The Yagua data support this lack of a simple continuum between fully 'main' and fully 'subordinate' clauses. In Sections 2.11.1 through 2.11.8 I discuss ten different types of clause combining in Yagua insofar as they are distinguished by the following morphosyntactic devices: (1) Is there an overt mark of dependency on the clause as a whole such as a complementizer, the conditional/relative/adverbial clitic -tiiy, or other adverbial conjunction? (2) Do the two clauses necessarily share an argument? (3) Is there obligatory dependence of tense or aspect between the two clauses? (4) Is one verb in a

non-finite form? And (5), if there is coreference between the two clauses, are the coreferential clitics jij- and/or -yü employed in one of the clauses, rather than the regular non-coreferential clitics?²¹

2.11.1. Unmarked sentential complements

Some clauses may be understood as the complement of another clause, but with no morphosyntactic signal whatsoever of this relationship. Both clauses are fully independent in form and the complement is only notionally or rhetorically dependent. The possible 'higher' verbs in such relationships include junúuy 'see' or 'observe', jachipiíyaa 'think', dáátya 'know, think', tuvaachu 'hear', and verbs of saying such as jutay/jitay 'say' or 'think', and jitájanu 'ask'. Selected examples are given here:

- (187) Naafiitay [yaa mutívvey jijyu ráámídyeera
 Naafa-jitay yi-a jiy-jü ráámiy-deera
 1DLEXCL-think 2SG-1&R cook 2SG-AL type:of:animal-small:one

nááfuuvóosiy núpora].
 nááy-nuvu-jásiy
 1DLEXCL-hunt-PROX1 night

'We thought [you would cook for yourself the animal we killed last night]'. (IS016)

- (188) Naaniinúuy [saanáay jifu, munufu].
 naada-junúuy sa-janáay jiy-nu
 3DL-observe 3SG-bathe DEMO-CL:ANIM:SG savage
 'They two observed this one bathing (himself), the savage'.
 (HTR082)

- (189) Satuvaachu jííta [satóodiiyáá váacha síiva].
 sa-tuvaachu sa-tóodiiy-yáá sa-íva
 3SG-hear JIITA 3SG-smile-DISTRIB monkey 3SG-DAT
 'He_i heard the monkey laughing at him_i'. (HT225-226)

Verbs such as vaata 'want' also take this type of complement when the subjects of the two clauses are non-coreferential. (If the subjects are coreferential the two verbs form a complex verb phrase, which is discussed in Section 5.1.1.)

(190) Savaata [sujunúiy Tomásara].
 sa-vaata sa-junúiy Tomásara-ra
 3SG-want 3SG-observe Tom-INAN
 'He wants Tom to observe it'.

2.11.2. Marked sentential complements

The essential difference between the unmarked sentential complements of Section 2.11.1 and marked sentential complements is that the latter have an overt complementizer at the beginning of the complement clause. Játiy, the neutral demonstrative jirya, and the form jiryátiy all serve as complementizers. Játiy is perhaps the most ubiquitous complementizer. It is derived etymologically from the neutral relativizer jiryátiy (jiy-ra-tiy DEMO-CL:NEUT-TIY) and is itself also used as a relativizer (Section 2.11.4). Except for the presence of a complementizer, marked sentential complements are fully independent. Tense and aspect may vary between the main and the complement clauses, no arguments need be shared between the two clauses, and both verbs are finite in form.

(191) Suptaanu jííta jifu Davi rúva
 sa-jútay-janu jiy-nu riy-úva
 3SG-say-PAST3 JIITA DEMO-CL:ANIM:SG David 3PL-DAT

játiy sacáásiifnúyanriy munufuvaanu'.
 sa-cáásiiy-núúy-janu-ríy
 that 3SG-finish-IMPF-PAST3-3PL enemy:plural

'This David said to them that he had finished off the enemy'.
 (DAVX012-013)

(192) Mítyanumaa jííta jírya núúfiqéé
 mítya-numaa jíy-ra núúy-níqéé
 nothing-now JIITA DEMO-CL:NEUT 1PLEXCL-get:angry

jiryemyomusiy játiy jiryey jóótára juvaanu.
 jiryey-moo-mu-siy jóóta-rà juvay-janu
 2PL-face-LOC-AB that 2PL begin-INAN kill-INF

'It is nothing now that we get angry before your faces
 that (since) you began the killing'. (DAVX027-028)

(193) Nuudyéétyetya váridyiidyécyu
 nuuy-dáátya-tya váriy-diiy-day-cù
 1DLEXCL-know-NEG then-yet-DAY-CÙ

jírya munufu jiyúcù.
 jíy-ra jiyu-cù
 DEMO-CL:NEUT savage here-CÙ

'We didn't know then yet that the savages were here!' (IS028)

In the following example jiryátiy introduces a complement clause which has tųuchoonu 'story' as an overt head, similar to clauses like English 'the fact that...'. The major function of jiryátiy is to serve as a relativizer for relative clauses. But here the jiryátiy clause cannot be taken as a relative clause since tųuchoonu is not an argument or constituent of it. The jiryátiy clause nevertheless mimics relative clauses in having an overt head. The missing story referred to in (194) is part of a quasi-epic cycle (P. Powlison 1969).

(194) Jásiy rásųtyéésidyey táraquií tųuchoonu
 rá-sųtyey-jásiy-day tá-ra-quií tųuchu-janu
 there INAN-lack-PROX1-DAY one-CL:NEUT-one tell-INF

jiryátiy naanuvichanúnyanu rŭŭsaa mucúmiy.
 jiy-ra-tiy naanu-vicha-núny-janu riy-ŭsaa
 DEMO-CL:NEUT-TIY 3DL-be-IMPF-PAST3 3PL-COM condors

'There a story is lacking that she used to live with the condors'. (CX108)

2.11.3. Adverbial clauses with -tiy and other conjunctions

A number of adverbial conjunctions employ the clitic -tiy. These are etymologically complex:

numáátiy	(numaa-tiy now-TIY)	'while, when'
rə́tiy	(rə-tiy IRR-TIY)	'so that'
daryátiy	(darya-tiy thus-TIY)	'so that'
váritiyiy	(váriy-tiy then-TIY)	'then'
rámutiyy	(rá-mu-tiy inan-LOC-TIY)	'therefore'

These adverbial conjunctions occur initially in their clauses. This is consistent with a verb initial type. -Tiy clauses precede their main clauses, which is possibly inconsistent with a verb initial type. However, VIN (following Greenberg 1963) notes that placement of conditional clauses before their superordinate clauses is perhaps universal and -tiy clauses include conditionals (see below and Section 2.4.1).

(195) Saꞑnumáátiy jitŭŭ saváturŭy rə́ chanáy váriy.
 sa-ꞑ-numaa-tiy sa-váturŭy rə́ chanáy
 3SG-IRR-now-TIY arrive:here 3SG-woman IRR rejoice then
 'When he arrives his wife will rejoice then'.

If -tiy is suffixed to an inflected auxiliary or verb, it results in a

conditional 'if' or temporal 'when' adverbial clause, depending on the time reference of the clause. (Recall that -tiy is always suffixed to the first element of C regardless of what that may be; Section 2.4.1.)

(196) Yáátiy jiya rumu,
 yi-á-tiy
 2SG-IRR-TIY go there

yáamaa jiryiy rájyū jarúsityá.
 yi-á-maa ray-jūy jarúsiy-tá
 2SG-IRR-PERF bring 1SG-AL rice-PART

'If you go there, you must bring back some rice for me'.

(197) Rijéétyamuyannumáatiy tjítájyura...
 riy-jáátya-muuy-janu-numaa-tiy tjítájy-rá
 3PL-throw:out-COMPLT-PAST3-now-TIY all-INAN
 'When they had thrown it all out...'

Téta 'unless' is a clause-initial subordinator. Téta clauses precede their superordinate clauses which is inconsistent with a verb initial type.

(198) Téta vuryáá jumúrya, vuryáá díiy tjítájy.
 vurya-á jumúy-rá vurya-á
 unless 1PLINC-IRR look-INAN 1PLINC-IRR die all
 'Unless we look at it, we will all die'.

Clause-final subordinators are counter to a verb initial type. There are two of these in Yagua: daryáju 'because' and túúnu 'while'. Daryáju and túúnu clauses generally follow their superordinate clauses, which is consistent with a verb initial type. Daryáju conceivably comes from darya 'thus' plus the postposition -jū 'relative'. Túúnu 'while' is isomorphic with the postposition túúnu 'beside'. Thus, the clause-final nature of these adverbial subordinators is due to their postpositional origins and reflects the

postpositional nature of the language more than aspects of verb position.

(199) Deerámiy saṣaniy-yaṣa sa-tiṣsa túnu.
 children shout-DISTRIB 3SG-play while
 'The children are shouting while they play'.

(200) Sṣúnááy sa-parúútya daryáju.
 sa-júnááy sa-parúútya
 3SG-cry 3SG-bored because
 'She/he is crying because she/he is bored'.

(201) Váṣu riṣnoodamu jiryátiy jááryiy
 ray-jṣnooda-mu jiy-ra-tiy
 let's:go 1SG-mother-LOC DEMO-CL:NEUT-TIY very

díivāṣanúúy daryáju naadá.
 díivāṣa-núúy
 sick-CL:ANIM:DL because 3DL

'Let's go to my mother because she is very sick'.

Use of jiryátiy with daryáju in (201) is possibly a movement towards a more consistent verb initial type (jiryátiy is most commonly a relativizer but there are indications it may be an incipient complementizer; Section 2.11.2).

As seen in examples (199) through (201), if there are coreferential arguments between these types of adverbial clauses and their superordinate clauses, the coreferential clitics are NOT used. There need be no shared argument between the clauses. Both verbs are finite in form. Tense formatives or the irrealis auxiliary may occur both within the adverbial clause and in the superordinate clause. However, except for daryáju 'because' clauses, the tense of the adverbial clause is apparently always the same as that of the superordinate clause.

2.11.4. Relative clauses

Relative clauses are characterized by a subordinating relativizer or relative pronoun, plus the fact that at least one argument must be shared between the main clause and the relative clause. Verbs in both clauses are finite, tense and aspect are independent, and the coreferential clitics jíy- and -yù are NOT employed between coreferential arguments across the two clauses.

Consistent with a verb initial type, relative clauses consistently follow their heads and are of the following form:

(203) \bar{C}
 Head-NP RELATIVIZER [. . . (CLITIC) (REL-NP/PP) . . .]

The abbreviation REL-NP/PP indicates the noun or postpositional phrase within the relative clause which is normally absent under identity with the head. CLITIC indicates a participant referring form (usually a Set I or Set II clitic) within the relative clause which resumptively mentions the participant relativized. The position of the resumptive clitic or reference within the relative clause is as it would be in a main clause. The resumptive clitic is underlined in

(204):

(204) Ramyítivyerya jimyichara
 ray-mutivyey-rà
 1SG-cook-INAN food

[jiryátiy satááryy Tomásara.]
 jiy-ra-tiy sa-tááryy Tomása-rà
 DEMO-CL:NEUT-TIY 3SG-buy Tom-INAN

'I cooked the food that Tom bought'.

There are two relativization strategies, depending on whether or not the RELATIVIZER is a relative pronoun. First, non-pronominal relativizers are formed with the demonstrative root jij- 'this', plus the neutral classifier -ra, plus the clitic -tiy. Jiryátiy (or its contraction to játiy) can be used to refer to animate or inanimate, specific or non-specific heads. Thus it is not a canonical pronoun but simply an introducer of the relative clause. When jiryátiy or játiy is used, a resumptive reference (underlined> occurs within the relative clause due to the non-specificness of the relativizer as in (204) and (205). (204a) is an S_0 clause (Section 2.1.2). In (205) the object within the relative clause is in the FM position.

(204) a. Váricha \bar{a} r \bar{a} j \bar{u} sir \bar{i} dye \bar{f} ií coodidyey jif \bar{u}
váriy-s \bar{a} \bar{a} r \bar{a} j \bar{u} sir \bar{i} y-day-níí coodiy-day jiy-mu
then-until scurry-DAY-3SG snake-DAY DEMO-CL:ANIM:SG

b. [jiryátiy savichasara s \bar{u} \bar{u} rya.]
jij-ra-tiy sa-vicha-sara s \bar{u} \bar{u} y-ra
DEMO-CL:NEUT-TIY 3SG-be-HABIT bite-CL:NEUT

'Then up scurried the snake, this one who is a biting one.'
(LX036)

(205) ...múcadíí jimyity \bar{a} [játiy múcadíí r \bar{u} \bar{u} michara]
jimyiy-t \bar{a} ra-jumiy-sara
dirt eat-NMLZR:INST that dirt inan-dig-HABIT
'...dirt eaters that dig up dirt (referring to something
like a bulldozer)' (DA047)

Very infrequently, no resumptive reference may occur within the relative clause if the argument relativized on is inanimate. The following is taken from an oral text:²²

(206) ... júvaadyi [jiryátiy riryaraçchaanu
 jiy-ra-tiy rirya-raçcha-janu
effects DEMO-CL:NEUT-TIY 3PL-carry-PAST3

jiryoorimyúju]
jiy-rooriy-mu-jù
COR-house-LOC-AL

'...the effects (knives, axes) that they_i carried to their_i
house'. (DAV147)

In the second strategy, the relativizer is a relative pronoun. VIN suggests that relative pronouns coding case of position relativized are rare, though attested. This type of relative pronoun occurs in Yagua only for some oblique cases (cf. example (219)). VIN notes that relative pronouns agreeing with class of the head noun are also attested. This is commonly the case for Yagua relative pronouns. Relative pronouns are formed by use of the demonstrative root *jiy*, plus a more specific classifier such as *nu* 'animate singular' or others, plus the clitic *-tiy*, yielding forms like *jiñútiy*. Alternatively, relative pronouns can be formed simply by suffixing *-tiy* to a pronoun such as *níi* 'third singular', *riy* 'third plural' *nú* 'other (animate)', *tíi* 'anyone, someone', to the 'inanimate' formative *rá-*, and even to Set I-plus-postposition complexes as in (219). Choice of any relative pronoun is specifically governed by the animacy, and if animate then person and number features of the head. In contrast to the neutral relativizer *jiryátiy/játiy*, when a more specific relative pronoun occurs a resumptive reference is very unlikely:

(207) Néé sámirya [rityimyúy tųvąçchu siimu.]
 sámiy-ra riy-tiy-múy sa-imu
NEG good-CL:NEUT 3PL-TIY-NEG listen 3SG-LOC
'Those who don't listen to him/her are not good'.

A resumptive reference (underlined) may occur under conditions which are not entirely clear to me:²³

(208) Sa-siryi jásiy muñú, coodiy, jãáyanú,
3SG-scurry there isula snake fer-de-lance

tjítájù [níitiy savichasara . judára sùúrya.
níi-tiy sa-vicha-sara sùúry-ra
all 3SG-TIY 3SG-be-HABIT hurting bite-CL:NEUT

'There scurried up the isula (a type of stinging ant), the snake, the fer-de-lance, all those who are hurting, biting ones'. (LX037)

The head of a relative clause may have the syntactic roles of subject, object (both patient and recipient), oblique (object of postposition), genitive, or predicate nominal within the relative clause. Relative clauses can have any syntactic role in the main clause: subject, direct object, indirect object, or oblique (object of postposition), genitive, or predicate nominal. Restrictive, non-restrictive, and correlative clauses (Section 2.11.5) occur. Examples (209) through (212) illustrate relativization on the subject (resumptive references are underlined). In (211) the relative clause is extraposed following a postposition.

(209) Naafiaa junúra [jiryátiy ráraniiy].
naafia-á junu-rá jiy-ra-tiy rá-raniiy
1DLEXCL-IRR cut-inan DEMO-CL:NEUT-TIY inan-stand
'We are going to cut this which is standing'. (TC099)

(210) jivyey [jiryátiy riryamirijj
jiy-vay jiy-ra-tiy riy-ramiiy-rijj
DEMO-CL:ANIM:PL DEMO-CL:NEUT-TIY 3PL-pass-ENROUTE

rádonaaachóǰjɔday]
rádo-naachóǰ-jɔ-day
upriver-towards-AL-DAY

'these ones who were on the way towards the headwaters' (IS049)

(211) Riryaꞑatunúyada tꞑariy munátyavay rúúśꞑꞑ
rirya-jatu-núy-jada munátya-vay riy-júśꞑꞑ
3PL-drink-IMPF-PAST3 before first-CL:ANIM:PL 3PL-COM

[jiryátiy riryeeenu váriya murꞑꞑanu].
jiy-ra-tiy riy-jiryiy-janu váriy-rá
DEMO-CL:NEUT-TIY 3PL-get-PAST3 then-INAN song

'The ancestors were drinking with those who got the
songs'. (FS002)

Example (212) illustrates relativization on the subject of an embedded
predicate nominal clause:

(212) jasee [jiryátiy ruꞑtaffúnyada [ravichꞑsirya]].
jiy-ra-tiy riy-jꞑtay-núy-jada ravichꞑ-siy-rá
hatchet DEMO-CL:NEUT-TIY 3PL-say-IMPF-PAST3 stone-AB-INAN
'(their) hatchets which they used to say were of stone' (SX002)

Examples (213) through (216) illustrate relativization on the
direct object (=patient). In (215) an oblique occurs in the PM
position within the relative clause, and in (216) the subject occurs
in that position. This raises some doubt as to whether the
relativizer or relative pronoun could be said to occur in the
structural PM position.

(213) Rꞑꞑ jiya jimyichara tíítáꞑꞑ tájíꞑꞑꞑ
ra-ꞑ ta-jiy-jú
inan-IRR go food all other-place-AL

musꞑ, jatusiy, [rátiy jiryꞑꞑ nířúꞑꞑ nutꞑꞑada].
rá-tiy jiryey-ꞑ nířúꞑꞑ nuta-jada
sachapapas, sweet:potatoes INAN-TIY 2PL-IRR desire plant-INF

'All the food is going to go to other places: sachapapas,
sweet potatoes, whatever you want to plant'. (IWO43)

- (214) Niintyēenī jifuday
 nii-niy-tēe-nī jiy-mu-day
 3SG(PRONOUN)-NIY-EMPH-3SG(SET:II) DEMO-CL:ANIM:SG-DAY

[jātiy vuryjivacharadafii].
 vurya-jivay-sara-day-nī
 this 1PLINC-kill-HABIT-DAY-3SG

'This one is he who we always kill'. (DAV065-066)

- (215) ...viitu muraanu [jiryātiy mūcatyuurya
 jiy-ra-tiy
 oje song DEMO-CL:NEUT-TIY Squirrel:clan

jifamu rimyūrasaradarya].
 jifa-mu riy-mura-sara-day-rā
 big:feast-LOC 3PL-sing:to:call:spirits-HABIT-DAY-INAN

'...the songs of oje (a type of tree) that in the big feasts of the Squirrel Clan they always sing' (FS042)

- (216) ... jivyanu báayamu [jiryātiy munufu
 jiy-vanu jiy-ra-tiy
 COR-husband soul DEMO-CL:NEUT-TIY savage

juvafūyada t̄aridyericyū].
 juvay-mūy-jada t̄ariy-day-riy-cū
 kill-IMPF-PAST3 before-DAY-3PL-CU

'(their) husbands' souls which the savages had killed long ago'.

The following example shows relativization on a direct object

(=recipient):

- (217) Vāmu [jiryātiy radyiityanujáy jāntyasinií,]
 jiy-ra-tiy ray-diityanu-jáy jāntyasi-nī
 man DEMO-CL:NEUT-TIY 1SG-show-PROX2 picture-3SG

née ratyéeryj̄j̄.
 ray-táaryj̄j̄
 NEG 1SG-brother:of:female

'The man I showed a picture to is not my brother'.

- (218) illustrates relativization on a postpositional dative

argument. The verb díiy 'see' is subcategorized to take a dative object rather than a direct object.

- (218) *dánuujjǵy* *vánujǵy* *rimityuvvǵjǵy*
dá-nuuy-jǵy *vánu-jǵy* *rimityuvvǵ-jǵy*
 two-CL:ANIM:DL-DL man-DL old:one-DL
- [*jiryátiy* *vǵǵdyíyásiy* *naadíiva*]
jiy-ra-tiy *vǵǵy-díiy-jásiy* *naada-íva*
 DEMO-CL:NEUT-TIY 1PLINC-see-PROX1 3DL-DAT

'the two old men that we saw this morning...'

Example (219) illustrates relativization on a postpositional locative. The object of the postposition is not resumptively mentioned within the relative clause, given the specificity of syntactic role and animacy indicated in the relative pronoun rámutiy:

- (219) *sarǵvǵa* [*rámuti* *ripyǵǵtyǵada* *ǵǵǵyanǵmiy*]
sa-rǵvǵa *rǵ-mu-tiy* *riy-pǵǵtya-jada* *ǵǵǵyanǵ-miy*
 3SG-poison inan-LOC-TIY 3PL-paint-PAST3 fer-de-lance-PL
 'his poison in which the fer-de-lances (or rattlesnakes)
 painted (themselves)' (LX048)

Example (220) illustrates relativization on a genitive:

- (220) *Jáchifǵiy* *sabááchatǵiyanní* *núu* *nijǵǵamintiy*,
jásiy-siy-niy *sa-bááy-sa-tǵiy-janu-ní* *nijǵǵamiy-ntiy*
 there-AB-NIY 3SG-flee-TRNS-ITER-PAST3-3SG one person-REP
- [*jiryátiy* *sǵǵiryupocmu* *jiryitǵǵntiy*].
jiy-ra-tiy *sa-jǵǵryu-poo-mu* *jiryey-jitǵǵ-ntiy*
 DEMO-CL:NEUT-TIY 3SG-old:garden-old-LOC 2PL-arrive:there-REP

'From there he chased him a person (i.e. a Yagua) too, the one whose old garden you arrived at too'. (RS017)

(221) illustrates relativization on the predicate of a predicate locative clause:

(221) Nuudiitq̃ j̃j̃ naadiimuntiy
 nuufiy-jitq̃ naada-imu-ntiy
 1PLEXCL-arrive:there JIITA 3DL-LOC-REP

[jiryátiy jásiy naada.]
 jiy-ra-tiy
 DEMO-CL:NEUT-TIY there 3DL
 'We arrived to her again where she was'. (WP044)

Restrictive headless relative clauses (i.e., where there is no overt noun phrase in surface structure which is modified by the relative clause) occur only where the head can be omitted under identity with some other noun phrase occurring in the immediately preceding or deictically given context. This 'identity' may be identity of kind and need not be identity of specific instance.

(222) Siiváay j̃j̃ta [j̃tiy rávichasara siinatyaq̃asa] ...
 sa-jiváay rá-vicha-sara sa-jinay-tq̃asa
 3SG-touch JIITA this INAN-be-HABIT 3SG-tail-middle
 'He touched what used to be the base of his tail...' (LB071)

2.11.5. Correlative clauses

In correlative structures, the relative clause precedes the entire clause containing the modified noun phrase. This is a type of 'left dislocated' relative clause (Downing 1978). According to Downing, in canonical correlatives neither the noun phrase in the main clause nor the coreferential noun phrase in the relative clause are deleted, but both are marked in some way. However, he observes that one or both can be omitted (particularly if nonspecific), and 'some languages permit deletion of the entire [antecedent] N' (Downing 1978:399). In Yagua correlative constructions, a full noun phrase need

not occur in the main clause, but there is at least a resumptive clitic (resumptive reference within the main clause is underlined):

(223) Tĩĩtiy jiyasara tóova,
 tĩĩ-tiy jiya-sara tóo-va
 whoever-TIY go-HABIT jungle-DAT

 sasũmyaa coodintifíi.
 sa-sũy-maa coodiy-ntiy-níi
 3SG-bite-PERF snake-REP-3SG

'Whoever goes to the jungle, the snake has bitten him/her too'. (LX047)

In some languages correlative clauses encode the feature [-specific] (Downing 1978:399), though Weber (1983) observes that in other languages they may refer to an item which is simultaneously [+definite] and [-specific]. The feature [-specific] means that the identity of the referent is unknown to the speaker. In contrast, [-definite] (=indefinite) means that the speaker assumes the hearer cannot identify the referent. Yagua correlatives present another alternative. In Yagua, correlatives can refer to [-specific] referents as in (223) above. They can also refer to referents which are [-definite] as far as the hearer is concerned, but which are [+specific] as far as the speaker is concerned. In (224), for example, the speaker knows the identity of the referent to whom the correlative refers, but the hearer does not. That is, the referent is [+specific] and [-definite]:

(224) Játíy jiyjéébyey junoo-siy rạ cháásiy
 jiy-jááy-bay junoo-siy cha-jásiy
 that 2SG-father-deceased head-CL:seed IRR be-PROX1
 'Whoever (has) your deceased father's skull (as) his necklace,

samariy, níinifíí jiyjáápa.
 sa-mariy níi-niy-níi jiy-jáápa
 3SG-necklace 3SG(PRONOUN)-NIY-3SG(SET:II) 2SG-grandfather
he is your grandfather'. (LX082)

(Lit: 'Who your deceased father's skull will be his necklace,
he is your grandfather'.)

In example (225) a relative expression again encodes a referent which is [+specific] but [-definite]. Here, the relative expression serves as the predicate for a predicate nominal construction (cf. Section 2.1.3). Given the syntactic relation between the relative expression and the entire clause, however, the relative is not strictly a correlative.

(225) Játiy rooriryuudiimúra jiyjéébyey ruudasíy.
 rooriy-ruudii-mu-rá jiy-jááy-bay ruu-dasiy
 that house-rafter-LOC-INAN 2SG-father-deceased blow-CL:pole
 'What is in the rafters is your father's blowgun'. (LX058)

There has also been some discussion on the close relationship between a conditional interpretation versus a relative clause interpretation of correlative clauses, depending on whether or not the event by which the referent is constrained is presupposed to have happened (Weber 1983, Schwartz 1971:17; see also Haiman 1978). In Yagua it is thus of interest to note that both relative clauses and conditionals are marked by -tiy. Examples like (223) could be interpreted as conditional adverbial clauses or as relative clauses depending on whether or not a presupposition is made regarding the event of the main clause. As a conditional adverbial, the sense of (223) would be 'If someone goes to the jungle, the snake has bitten him too'. The relative interpretation is more likely in (223), however, given occurrence of -maa 'perfective' in the main clause.

2.11.6. Indirect quote complements

Indirect quote complements may be preceded by a complementizer as in Section 2.11.2 above. More commonly there is no complementizer and they are fully independent clauses as in Section 2.11.1. Tense and aspect may vary and both verbs are finite in form. Indirect quote complements follow the verb or clause of saying:

- (226) Rųtáy riitijásiy núpoora.
riy-jųtáy riy-jitij-jásiy
3PL-say 3PL-arrive:here-PROX1 night
'They_i say they_j arrived here last night'.

When a coreferential non-first or non-second person singular participant occurs in the two clauses, a coreferential clitic jiy- or -yù may occur in the indirect quote. Such clauses are thus grammatically dependent on the clause of saying only for animacy and number indices.

- (227) Rųtáy jityijásiy núpoora.
riy-jųtáy jiy-jitij-jásiy
3PL-say COR-arrive:here-PROX1 night
'They_i say they_i arrived here last night'.

- (228) Rųtéésiy riryąa jiváy munufúmiyu.
riy-jųtáy-jásiy riry-a munufu-miy-yù
3PL-say-PROX1 3PL-IRR kill enemy-PL-CORO
'They_i said the enemies would kill them_i'.

2.11.7. Infinitival adverbials

In Section 2.11.3 I discussed clauses which serve an adverbial function relative to their superordinate clause. Verbs nominalized with the infinitival/participial suffix -janu/-jada (INF) also serve such a function when suffixed with the postpositions. The allative

postposition -jũ conveys the idea of purpose, and the locative -mu and instrumental/comitative -ta convey the idea of simultaneity with the action of the main clause (-mu is far more common in this function than -ta).

- (229) Yaa saay siibeenújyyura.
 yi-a [sa-jimiy-janu-jũ]-yù-rà
 2SG-IRR give [3SG-eat-INF-AL]-CORO-INAN
 'Give it to him to eat'. (Lit: 'Give it to him towards his eating'.)
- (230) Suvõq naadiiváay jivyánu dapúíyanumu.
 naana-jiváay jiy-vánu dapúíy-janu-mu
 string:bag 3DL-make COR-man hunt-INF-LOC
 'She makes string bags while her husband hunts'.
- (231) Riyarõõvanumaa jiyáanumu.
 riy-yarõõva-numaa jiy-jiya-janu-mu
 3PL-make:noise-now COR-go-INF-LOC
 'They make noise going'.
 OR: 'They make noise in their going'.
- (232) Siitjì rãýyãjadata jiyu.
 sa-jitjì rãý-yã-jada-ta
 3SG-arrive:here jump-DISTRIB-INF-INST here
 'He arrives here dancing'.
 OR: 'He arrives here with dancing'.

Infinitival adverbials may precede as well as follow their main clause. Compare the following with (229) through (232) above:

- (233) Jããseenújũ núúdyiitõõjáy.
 jããsiy-janu-jũ núúfiy-jitõõ-jásiy
 cultivate-INF-AL 1PLEXCL-arrive:there-PROX1
 'To cultivate we arrived there'.
- (234) Rachuutaãanumu néé rajíitu.
 ray-suuta-janu-mu ray-jíitu
 1SG-wash-INF-LOC NEG 1SG-rest
 'While washing I don't rest'.

- (235) Riiyaanumunumaa jiyarõõva.
 riy-jiya-janu-mu-numaa jiy-yarõõva.
 3PL-go-INF-LOC-now COR-make:noise
 'They make noise going.
 OR: 'In their going they make noise'.

Infinitival adverbials are more tightly embedded in their main clauses than are -tiy and other adverbial clauses. This is shown partly by the fact that infinitival adverbials can be surrounded by material of the main clause as indicated by the bracketing in (229). Additionally, if there is a shared argument between the main and adverbial infinitive, the coreferential clitics jiy- and/or -yü can be used:

- (236) Sasíimyya jímyuutyaañújúníí.
 sa-síiy-maa [jiy-jimütya-janu-jü]-níí
 3SG-run-PERF [COR-help-INF-AL]-3SG
 'He has run to help him'. (Lit: 'He_i has run towards
 his_i helping him'.)

The coreferential clitics need not be used; complete ellipsis of the coreferential argument may occur as in (232) and (233) above. When the subjects are not coreferential, regular Set I clitic forms occur on both the main verb and the adverbial infinitive:

- (237) Sáboojjã satãaryyã váriy saãtoodájü.
 sáboo-jjã sa-tãaryyã sa-jatu-jada-jü
 sweet-CL:liquid 3SG-buy then 3SG-drink-INF-AL
 'Soda pop he_i bought then for him_j to drink'. (PCH076)

Aspectual formatives may occur in the non-nominalized predicate.

They have scope over the nominalized predicate:

(238) Riyaróóvasara jiyáanumu.
 riy-yaróóva-sara jiy-jiya-janu-mu
 3PL-make:noise-HABIT COR-go-INF-LOC
 'They always make noise going'. (OR: 'They always make noise
 in their going').

To summarize, infinitival adverbials differ from finite adverbial clauses in four ways. In infinitival adverbials the nominalizing suffix -janu/-jada occurs. They cannot take independent tense and aspect. If there are coreferential arguments between the main and adverbial expressions, then the coreferential clitics jiy- and -yü (or no clitic) are used for second and subsequent references to the participant. Infinitival adverbials can also be surrounded by material of the main clause.

2.11.8. Infinitival complements and verb serialization

There are two types of complex clauses where an embedded or subordinate verb forms a complex verb or verb phrase with the finite or semantically main verb. These are infinitival complements which share an argument with the main clause (Section 5.1.1), and motion verbs which occur in a (phonologically bound) compounding or 'serial' construction with other verbs (Section 5.1.2).

2.12. Summary

In this chapter I have surveyed a wide variety of clausal phenomena. Where relevant I have pointed out whether or not a canonical verb initial pattern is followed. Following discussion of noun phrase, adpositional phrase, verb phrase and pragmatic factors affecting constituent order in Chapters 3, 4, 5, and 6, a summary of

the verb initial versus non-verb initial features will be given in Chapter 7.

NOTES TO CHAPTER 2

¹ It is thus somewhat difficult to give a unified syntactic statement of Set I clitic distribution. An X-bar phrasal approach does not work because Set I clitics reference the dependent element in genitive and adpositional phrases, but in any classic X-bar treatment the subject of a clause is not a dependent of the verb phrase. In Chapter 7 I suggest that the unity underlying all the uses of Set I clitics may be one in which Set I clitics are proclitic to the predicate of certain one place argument-predicate relations. As will become apparent in Sections 2.1.1, 3.5, and 3.6, Set I clitics occur initially before the predicate (when there is no pre-predicate argument noun phrase), and are proclitic to the predicate. (See Klavans 1985 for a theory of clitic types according to the parameters initial/final position within the syntactic sentence or phrase, before/after the initial element of the clause or phrase, and proclitic/enclitic phonological liason).

² In Klavans' (1985) terms, Set II clitics are initial under some level of N when N is the object of a transitive clause (Section 2.1.1), the subject of an S_0 clause (Section 2.1.2), or the subject of a predicate nominal construction (Section 2.1.3). They precede their syntactic phrasal host, except when the full noun phrase host is 'deleted'. In that case, they most neutrally occur at the end of the clause, attached to whatever is the last element of the clause. They are enclitic.

³ This will be made more explicit in what follows. In the thousands of clauses that I have looked at from naturally occurring text material, I have found only two instances of SOV order where the subject does not appear to be 'left-dislocated'. In both cases second position clitics intervened between the two preverbal noun phrases. I do not have intonational evidence for these cases as the texts were transcribed by Paul Powlison. SOV clauses have never surfaced and have been judged 'bad' in elicitation unless there is unusual pause phenomena. Perhaps these two cases may have been the result of 'false starts'.

⁴ Following most examples taken from texts is a reference to the text from which the example is taken. (Some examples in this work have been adapted from actually occurring text examples, usually making them shorter for length and expository purposes. In some cases I have forgotten the sources for examples, or the texts were short, semi-elicited ones that we used for language learning purposes, but to which we did not give a code.) Some of the texts were transcribed by Paul Powlison, and some by Tom Payne and myself. In all except one text from the Powlison and Powlison (1977) concordance project texts, I have retained the reference number associated with examples even though these are not 'clause' numbers. More than one clause may occur under a given number in the concordance texts. T. Payne (1985) reproduces the 'Kneebite Twins' (KT) text from the Powlison

concordance and his numbers are more or less 'clause' numbers. Examples in this work from the Kneebite Twins text match the numbers found in T. Payne.

⁵ Dooley (1982:311) distinguishes 'inner' and 'outer' delimiting components based on those which are related to the nuclear predication through the case frame of the verb, versus those which are not. A fuller treatment of pragmatic structuring in Yagua would possibly want to make such a distinction.

⁶ Givón (1983) uses the term 'topic' in two ways. First, he uses it to refer to any participant mentioned in discourse, and second to refer to the 'primary topic' (usually encoded as the grammatical subject across several sequentially order clauses) of a thematic paragraph (1983:8). This view of topicality is explicitly not sentence-bound and allows for degrees or levels of topicness. For Dooley a 'topic' is just one type of delimiting component.

⁷ Possible occurrence of auxiliaries and verbs in the PM position is briefly mentioned in Section 2.4.3.

⁸ The clitic -day in (51) is a phrasal clitic which occurs on both noun and verb phrases. Its function awaits further investigation, though it appears to co-occur with amplification and restatement phrases in discourse. However, it is not an indicator of marked pragmatic structuring.

⁹ I am not concerned here with whether Yagua has an abstract AUX constituent in the sense of Steele (1978) or Akmajian, Steele, and Wasow (1979).

¹⁰ Words such as tii in (74) are ideophones, similar to the English words plop, woosh, bang, etc. In Yagua (and in the Amazon area generally) ideophones express a wide variety of concepts, not limited to sounds accompanying a given action. The phonology of such words is not subject to the same constraints as phonology of other words. One notable feature is wide variation in vowel length depending on the enthusiasm of the speaker.

¹¹ Paul Powlison (personal communication) has suggested that -riy always indicates that a given action ought to be done but probably won't end up being done.

¹² In addition to Set I clitics, Set II clitics, and the two types of second position clitics discussed in Section 2.4, there are also phrasal enclitics and clausal enclitics which occur after the last element of the phrase or clause. These are specifically discussed in Payne and Payne, in progress.

¹³ In (93) múny jaátuunudee 'there beside the water' might be said to form a single constituent. It is perhaps anomalous, however, given that the clitics occur after the first word of the delimiting

constituent, rather than the entire constituent. A better analysis may be that múy jaátuumudee is a series of paratactic phrases identifying a location. I have no explanation for the different orders of -níy and -tiy in (92) versus (93).

14 Whether conjunctions and complementizers should be considered as occurring in the non-nuclear setting position, FM position, or some other structural position will not be explored here. -Tiy occurs as a formative in various conjunctions (Sections 2.11.2 and 2.11.3) and is always a formative in relative pronouns or relativizers (Section 2.11.4). In certain frameworks at least the relative pronouns/relativizers would be said to occur in a complementizer position. I believe there is evidence that at least relativizers and relative pronouns do not occur in the FM position (cf. Section 2.11.4).

15 The negative particle néé shows similar ambiguity of constituency. The most common pattern is for néé to form a constituent with the following verb, as in:

Néé rúvamyuy jiíta rimityoodadéérý.
riy-júvay-muy rimityu-jada-dee-rý
NEG 3PL-kill-COMPLT JIITA old:one-FEMININE-DIM-dear
'The didn't kill the old lady'.

But I have also seen a few cases where jiíta is placed directly after the negative and before the verb.

16 Intonation will be discussed shortly. Examples (131) and (135) are from a written text which was recorded after the author had had opportunity to go over it numerous times. The other examples with marked intonation are from oral texts. A double slash line represents a relatively longer pause than a single slash, judged impressionistically.

17 The form rá-numaa 'it-now' without the negative y does not mean 'so that'. The positive counterpart is ráatedyey (from rá-a-tedyey INAN-IRR-TEDYEY?)

18 I would like to thank Paul Powlison and Tom Payne for significant input regarding the forms and meanings of these question words.

19 Examples (174) through (177) were graciously provided by Paul Powlison and Hilario Peña; interpretation of underlying forms and long vowels in these examples is my own. No examples like (175) and (176) have surfaced in any of our elicitation, the texts we have gathered, or the extensive Powlison concordance project.

20 This means of forming questions on constituents of complement clauses may be more common (it occurs in my own data, for example). It

is not clear to me whether (177) has the sense of 'Who does John think ate my fish?' or 'Who does John think ate his fish?', or perhaps both.

21 More could be said about each type of clause combining than will be pursued here, particularly bringing in information about intonation and semantic scope relations.

22 I have not seen other clear cases where jiryátiy as a relativizer occurs without a resumptive reference.

23 Use of singular clitic forms to reference groups, as in (208), may have something to do with use of the resumptive Set I clitic despite the specificity of the relative pronoun. But I really do not know..

Chapter 3: Noun and Postpositional Phrase Phenomena

Beginning in this chapter and continuing throughout chapters 4 and 5, I discuss phenomena pertaining to sub-constituents of the clause. Chapters 3 and 4 do contain some examples with complex verbal morphology which is not discussed until Chapter 5. However, I have chosen this presentational sequence in order to better summarize facts about interpretation of the index of the coreferential clitics iy- and yü in Chapter 5. This chapter is centrally concerned with establishing the basic order of constituents within the noun phrase and with discussion of postpositional phrases.

I will argue that the following is the basic order of constituents within the noun phrase, though it is unusual in natural discourse for a given noun phrase to have all these constituents:

(239)	{	DEMONSTRATIVE	QUANTIFIER	HEAD	DESCRIPTIVE
				NOUN	MODIFIER
	}	GENITIVE			

Demonstratives consistently precede the head noun. Quantifiers include number terms and words of general quantification such as rájuu 'much, many'. The basic position of quantifiers is preceding the head noun. Under certain pragmatic conditions they may occur in the preverbal PM position, discontinuous from the rest of their postverbal noun phrase (Chapters 2 and 6). Rarely, they may occur following the head noun, possibly in a paratactic relationship with the rest of the noun phrase.¹ Basic order of the numeral and

demonstrative before the head noun is counter to the verb initial norm (VIN; Appendix II). The position of descriptive modifiers is discussed in Section 3.3 where I argue that it is basically post-head. Relative clauses are consistently post-head (Section 2.11.4). Genitives precede their head noun as the basic order (Section 3.5). It is awkward to combine a genitive with a demonstrative or quantifier in a single noun phrase. The language is consistently postpositional (Section 3.6).

In Yagua, inherently nominal roots are identified by the fact that when not suffixed with a classifier or other nominalizer they can function as the syntactic subject or object of a clause, as the object of a postposition, or as the predicate of a predicate nominal construction. For example, the term vánu 'adult male, man' has all these properties:

- (240) As subject:
 Sa-síiy vánu. 'The man runs'.
 3SG-run man
- (241) As object:
 Ríjínúúfíí vánu. 'I see the man'.
 ray-júnúuy-níí
 1SG-see-3SG man
- (242) As object of postposition:
 Sa-síiy vánu-mú-jù. 'He ran towards the man'.
 3SG-run man-LOC-AL
- (243) As predicate of predicate nominal construction:
 Vánu-numaa-níí Segundo. 'Segundo is now a man'.
 man-now-3SG

In contrast, inherently modifying roots are those which neither are syntactically verbal (i.e. they cannot take most or any of the suffixes described in Chapter 5), nor can they serve the syntactic

functions of inherently nominal roots unless they are first suffixed with a classifier or other nominalizing form. In their unsuffixed form, however, they can function to modify nouns. Compare jaamu 'big' in (244) with vánu in (241):

(244) *Rijimúrya jaamu.
ray-junúuy-rà
1SG-see-INAN big

When suffixed with a classifier, however, jaamu can serve these syntactic functions (this is discussed further in Chapter 4). Compare (244) and (245):

(245) Rijimúrya jaamudasiy.
ray-junúuy-rà jaamu-dasiy
1SG-see-INAN big-CL:thin:pole
'I see the big blowgun'.
OR: 'I see the big pole' (and other possible readings depending on context).

As far as I know, there are only two or three inherently modifying roots.² However, as I will argue in Section 3.2, roots which are syntactically nominal as defined by the criteria mentioned above may function as modifiers. Thus, in a given context syntactic nominals may or may not function as prototypical nouns (Hopper and Thompson 1984).

There are actually three types of 'descriptive modifiers' in Yagua (the functional equivalent of English adjectives): bound modifying roots which may be suffixed to a head noun, inherently modifying roots which have syntactic properties different from nouns as just illustrated, and syntactic nouns which serve as modifiers to other nouns. In Section 3.3 I argue that the basic order of non-bound

modifiers is post-head, even though inherently modifying roots may occur in pre-head position when they are not suffixed with a classifier.

3.1. Bound modifying roots

Use of phonologically and syntactically distinct modifying words within noun phrases is relatively infrequent in natural discourse. The most common means of modifying a noun is suffixation of a classifier, verbal root, or other suffix to a noun. Bound modifying roots such as -poo 'rotting' follow classifiers and precede size and quantity suffixes (-quii and -miy respectively in (246)):

(246) roorijyudapyóóquii#miy
rooriy-ju-day-poo-quii-miy
house-CL:opening-CL:patch-rot-long-PL
'several tall and rotting house doors'

cf: poo 'rot over there' (verb)

Harrison (1983) argues on the basis of suffixation of modifying roots to nouns that Guajajara (a Brazilian Tupi-Guarani language) is a Noun + Adjective language. (He argues that it is an example of a VSO, postpositional, N + Adjective, Genitive + N language; Hawkins' Type 8). Harrison does not specifically say that the class of 'adjectives' is limited to suffixed modifying roots, but in fact all the examples he provides of modified nouns are of this sort.

I am hesitant to argue on the basis of suffixation of roots like -poo in (246) that Yagua is a Noun + Adjective language. First, non-bound modifiers do exist in Yagua. Most (if not all) theoretical claims about order have to do with relative order of separate

syntactic constituents. Order of bound modifiers would not be the most convincing evidence of basic constituent order (though it may give us indications of historically prior orders).

Nevertheless, we must be careful not to assume that an element is not syntactically distinct from some other element just because the two are phonologically bound. Clitics, for example, are a case where this cannot be maintained. As illustrated in Section 2.1.1.2, the direct object clitic forms a phonological constituent with whatever precedes it, but a syntactic constituent with the following noun phrase (if one is present in the clause; see also T. Payne 1983b). There are other evidences of phonological 'looseness' between separate syntactic elements in Yagua. Application of the metathesis process (Section 1.6) in (247) suggests that the first adpositional phrase is phonologically part of the verb.

(247) Sų́tachiíva, mumuńu siíva ...
 sa-jų́tay sa-íva, sa-íva
 3SG-say 3SG-DAT savage 3SG-DAT
 'He said to him, the savage (said) to him ...' (HNTR038)

But other evidence convincingly shows that the adpositional phrase is not a syntactic part of the verb. A subject or object noun phrase can intervene, resulting in clear phonological separation between the verb and adpositional phrase:

(248) Sų́tay ricyuráca siíva.
 sa-jų́tay riy-curáca sa-íva
 3SG-say 3PL-chief 3SG-DAT
 'Their chief said to him...'

Within longer verbal forms speakers may pause before certain

suffixes, particularly some of the more aspectual ones (Chapter 5). Conceivably affixation of these forms is relatively recent. But in any case, it corroborates the phonological looseness of the language. In sum, we want to be careful not to dismiss modifying roots as separate syntactic constituents just because they are phonologically bound. (If we should find that the modifying roots in Guajajara are always phonologically bound, however, it would just strengthen the case against using them as evidence of a syntactic Noun + Adjective order.)

There are two reasons why the Yagua bound roots cannot be considered syntactically separate constituents from the head noun (at least in synchronic terms). First, size and quantity suffixes are strictly nominal suffixes and they follow bound modifying roots as in (246) above. Second, there is a contrast between bound roots versus those same roots when suffixed with a classifier or other nominalizer. Compare rápuuy in (249a) versus (249b, c), and puryeey in (250a) versus (250b, c). As non-bound, non-nominalized roots, as in the (c) forms, they do not mean 'worthless' and 'closed' respectively, but have verbal meanings. (Available information suggests that bound modifying roots generally may be etymologically related to verb roots.)

- (249) a. Vatachare-rápuuy
frog-worthless
'worthless frog' (LB011)

b. mááy rápuurya
 rápuuy-ra
 stranger worthless-CL:NEUT
 'worthless stranger' (idiom for mestizo)

c. rápuuy 'to menstruate'

(250) a. Saya jííta jáchchiy nuupuryeeyya.
 sa-jiya jásiy-siy nuu-puryeey-va
 3SG-go JIITA there-AB road-closed-DAT
 'He went from there by the closed road'. (LB103)

b. púryeerya 'cloudy day'
 púryeesiy 'fence; fish trap'

c. púryeey 'to close or fence in (e.g. like a road
 or tube)'

When such modifying roots are suffixed with a classifier or nominalizer as in the (b) forms, they are both phonologically and syntactically distinct from the head noun. If they function as descriptive modifiers, then under pragmatically marked conditions (Section 2.1.1.5 and Chapter 6) they may occur preceding the verb, discontinuous from the rest of their noun phrase. In appropriate discourse contexts they may occur without an overt head noun, particularly if some classifier other than the neutral one serves as a nominalizer. And as suggested by the translations in (250b), a suffixed root can be an independent noun. These three facts argue that a non-bound modifier must be a syntactic constituent separate from the head noun itself. Thus they contrast with the bound roots as in the (a) forms.

3.2. Determination of head versus modifier within noun phrases

The preceding discussion raises a question which must be answered if we are to satisfactorily discuss order of head noun and non-bound descriptive modifier. Non-bound modifiers are most frequently syntactically nominal (either inherently or through derivation; this is statistically substantiated in Section 3.3). Given this, how can we in a principled way determine which is the head and which is the modifier? Order itself cannot be relied on as a criterion for two reasons. First, one objective is to establish the basic order of head noun and descriptive modifier. If we use order as a means of determining what is the head and what is the modifier, the argument is circular. Second, descriptive modifiers can sometimes precede and sometimes follow what I conclude is the head noun (Section 3.3). Thus, in any given phrase order alone may not conclusively show what is head and what is modifier.

If we cannot establish a principled difference between head noun and descriptive modifier, then it may be there are simply two nouns in apposition which are equally 'head nouns', and Yagua would have to be excluded from typological surveys where order of head noun and descriptive modifier is pertinent. This issue is not specific just to Yagua, as use of nouns for modifiers (rather than stative verbs, for example) may be an Amazonian areal feature. It is found in at least Hixkaryana (Carib), Chayahuita (Cahuapanan), PreAndine Maipuran Arawakan, and Zaparoan languages. It is also found in Quechua. In what follows I discuss criteria which have been invoked for determining what is the syntactic head of a phrase. None of these

satisfactorily solves the problem for languages such as Yagua. I then argue that a discourse principle does satisfactorily distinguish head and modifier within noun phrases. Briefly, head nouns are potentially manipulable in subsequent discourse while modifying nouns are not.

3.2.1. Category constancy.

It is commonly assumed that the syntactic category of an entire phrase is the same as the syntactic category of the head of that phrase. This is the basis for much of X-bar syntax (Jackendoff 1977). The head of a verb phrase must be a verb, the head of a noun phrase must be a noun, the head of an adjective phrase must be an adjective, and the head of an adpositional phrase must be an adposition. Thus, if we have a given element X to which we add an element Y, and if the category of the entire resulting phrase is X', then X must be the head of the phrase, and not Y.

This criterion is not very helpful in the case of Yagua noun phrases. If both the head and the modifier are inherently nominal (and they almost always are), the syntactic category of the phrase is consistent with the syntactic category of either component element. We still do not know which is the head.

3.2.2. Unique immediate constituent, and obligatorily present

J. Anderson (1975) claims that the head of a construction is (1) a 'characterizing' terminal element (lexical item?) (2) which occurs obligatorily, and (3) once and only once as an immediate constituent of any given instance of that construction. (4) It does not occur as

an immediate constituent of any other construction. Anderson presumably bases these criteria partly on the assumption that more than one modifier can occur in a noun phrase, but as a general rule (in Indo-European languages?) only one noun occurs in a non-coordinate noun phrase. Likewise, we assume a verb phrase will have only one verb. Certainly within traditional American structural linguistics any clause which has two verbs is classically argued to contain an embedded clause.³

These criteria do not resolve the problem. In any Yagua noun phrase no more than one demonstrative or number term may occur as a terminal element. Yet it is not likely that we want to say the resulting phrase is a 'demonstrative phrase' or 'number phrase'. Of course, numerals and demonstratives are not obligatory elements of all noun phrases, and thus the objection does not stand. However, if a numeral is present, in natural discourse the noun may be absent (cf. example (329k) in Chapter 4). Do we then conclude that the numeral in such a phrase is the head after all, since the noun does not seem to be obligatory? Additionally, what most axiomatic structuralist approaches would posit as a modifying word may occur alone in actual discourse, perhaps suffixed with a classifier. The head noun is not necessarily overtly expressed. But presumably these are not serious objections to criterion 2, since perhaps the head is (axiomatically) obligatory only in underlying structure.

Nevertheless, if both what we intuitively take to be the head noun and the modifying noun are syntactically nominals, then we have more than one nominal category as immediate constituents of the

phrase (Anderson's criterion 3). Further, nouns are terminal immediate constituents of both noun phrases and of modifying phrases (criterion 4). Thus, by both criteria 3 and 4, we should conclude that the head of the noun phrase cannot be one of the nouns. Strictly applied, these criteria yield counter-intuitive and conflicting results.

3.2.3. Subcategorization and government.

Nichols (in progress) suggests that the head is that word which governs, or is subcategorized for, or otherwise determines the possibility of occurrence of, the other. (She additionally suggests that the head determines the category of its phrase in line with the criterion in 3.2.1 above.) For example, a transitive verb is subcategorized for the occurrence of a noun to which direct object case is assigned. But a given noun is not subcategorized for the occurrence of a verb. Traditionally, then, the verb is taken as the head of a verb phrase containing both verb and direct object. Similarly, an adposition requires the occurrence of a noun phrase within the adpositional phrase and may govern the particular case assigned to it. But any particular noun does not require or govern the occurrence of an accompanying adposition. We thus conclude that the adposition is the syntactic head of the phrase, and not the noun.

Crosslinguistically it is not clear that nouns are subcategorized for modifiers. They do not require modifiers in the same sense that adpositions may require a noun (phrase), or that a

transitive verb may require a direct object. For example, consider the following Yagua noun phrase:

(251) tapuuvyey niisijyo
 tapuuy-vay niisiy-jo
 fight-CL:ANIM:PL eye-CL:place
 'one-eyed warriors' (LB012, 015)
 (?'warriors' eye sockets')

The occurrence of tapuuvyey 'warriors' might conceivably allow niisijyo 'eye place' (or 'eye socket'), but it does not require it. Alternatively niisijyo might be said to allow occurrence of tapuuvyey. Neither noun is subcategorized for the presence of another noun in the lexicon, and both nouns can occur independently as head nouns in other contexts. A similar example is the phrase júnúcha vānu 'male tapir' in (260) below: both items occur alone in other contexts where neither determines the occurrence of, or is subcategorized for, the other. It rather appears that the noun phrase STRUCTURE is what potentially allows for both a head noun and a modifier.

Perhaps related to the notion of 'government' as Nichols uses it is the phenomenon of agreement within noun phrases. Generally speaking, non-head elements within noun phrases may be marked for agreement with some features of the head noun, and much less commonly the other way.⁴ In a canonical noun class language such as Spanish, for example, modifying lexemes like BUENO (bueno/buena) 'good' do not have inherent class but reflect the class of the head noun in the particular phrase in which they occur. This suggests we might look at use of Yagua classifiers in noun phrases. When two nouns occur in

sequence, one of which has a classifier, does just one of the roots require or govern choice of the classifier?

This is not an extremely helpful heuristic either. Classifiers (underlined> may correspond with the class of what we intuitively feel must be the head noun, as in (252) and (253).

(252) sūjay mi*ī*-jāy
 cloth dirtyness-CL:pelt
 'dirty cloth/clothing' (not 'cloth-like dirtyness')

(253) murijyū jāamucaajuca
 muriy-ju jāamu-ca-ju-ca
 vine-CL:string:like big-long-CL:string:like-long
 'long piece of vine' (not 'vine-like long thing')

But classifiers are not required on descriptive modifiers within modified noun phrases, as we might expect to be true for inflectionally governed agreement morphology:

(254) HEAD MODIFIER
 cachunu sīteenu
 monkey true
 'real monkey'

(255) HEAD MODIFIER
 sunupanu runay
 wild:anatto red
 'red wild anatto'

(256) QUANTIFIER HEAD MODIFIER
 Sasāāfiī tátoquiī sábuujyāā buyēēchara.
 sa-sāāy-nīī tá-too-quiī buyēēy-sara
 3SG-give-3SG one-CL:bowl-one banana:drink mix-O:NOM
 'He gave him one bowl of prepared banana drink'. (HTR122)

Even when a classifier does occur, it is often the 'neutral' -ra which may occur partly by virtue of having derived a noun from a verb or some other root:

(257) niisityadii t̥i̥turya
 niisiy-tadii t̥i̥tuy-ra
 eye-CL:seed transform-CL:NEUT
 'transformed eyeballs'

Does class of the head noun just selectionally restrict choice of classifiers? At first glance this hypothesis does not fully account for the data either, given cases where the classifier on the modifying noun is neither in concordance with the class of the head noun nor neutral. This is the situation in (251) above: -jo 'CL:place' could only refer to an inanimate object, yet tápuuvyey 'warriors' must be animate. The inanimate classifier and the animate noun are objectively incompatible. However, we might argue that cases like (251) are somewhat akin to compound nouns and thus may not be subject to usual selectional restriction relations.⁵ Consider the English compound noun garbage man. Garbage itself is most neutrally taken as referring to something inanimate, while man is animate. But in the compound garbage simply says something about the occupation associated with the person in question and does not refer to any of his inherent features. Garbage is not referential in this context.

But even in compound nouns, one of the nouns is taken as denoting the actual item referred to, and the other somehow restricts the class of all items of that sort. For example, rooriryuudii (rooriy-ruudii) 'house-ridge:pole' refers to a type of pole, not a type of house. Garbage man refers to a type of man, not a type of garbage. Thus we still wish to maintain that one of the nouns is the head of the construction and the other is the modifier. We still need a principled basis for determining this.

3.2.4. Pragmatic head

The preceding discussion leads to what I believe is a principled basis for distinguishing head and modifier in Yagua noun phrases, and ultimately in all languages. When looking at naturally occurring noun phrases in discourse, there is an intuitive sense that a given item either is, or is not, the 'pragmatic' head. This corresponds with whether or not the nominal form actually refers to a (pragmatically) referential entity within the universe of discourse. Based on Du Bois (1980) I define an entity or concept as pragmatically referential if it is treated as an existing, bounded entity within the universe of discourse. Such an entity can subsequently be referred to as the same entity, often by means of anaphoric devices. This is the same thing which Hopper and Thompson (1984) term a 'discourse manipulable' entity (cf. also Givón 1985). From a discourse and ultimately cognitive perspective, certain nominal forms constitute prototypical instances of nouns in that they refer to entities which can be further deployed or manipulated in subsequent discourse. This is precisely because they are pragmatically referential. For the moment I will refer to such nouns as the 'pragmatic heads' of their noun phrases, given that we do not yet have a criterion which allows us to syntactically distinguish head versus modifying nouns.

Pragmatic headship has well-defined consequences in terms of syntactic encoding. Depending on the language, the pragmatic head may be identified as the syntactic head by being encoded as a syntactic noun. Syntactically distinct devices such as adjectives, stative verbs, or relative clauses may be used to further specify or delimit

the pragmatic head, but these devices cannot be used to encode it directly. In Yagua, however, the devices for encoding pragmatic heads and for encoding information which further specifies or delimits them are objectively the same in terms of syntactic properties: they are nouns. Nevertheless, in a noun phrase containing two nouns, one of the nouns may be subsequently manipulated in the discourse as referring to the same entity to which the entire complex noun phrase referred initially. The other noun may not have this property. If the non-manipulable noun was used alone in subsequent discourse, the entity referred to would be potentially indeterminate, or would possibly be interpreted as a different referent than the one denoted by the earlier noun phrase.

Some examples may help make the difference clear. Given any particular sentence or noun phrase in isolation, it is relatively difficult to determine whether a noun refers to a discourse manipulable entity or concept. For example, in (251) above, we cannot really tell whether niisijyo is discourse manipulable. But in context it is clear that it is not discourse manipulable in the same way that tapuuyvey is. The following clause occurs later in the text than the clause in which tapuuyvey niisijyo is introduced.

(258) Múchifumaa rífiy rabééntiy.
 múiy-siy-numaa riy-niy rabéé-ntiy
 there-AB-now 3PL-MALF circle:around-REP
 'From there they circled around again' (trying to catch
 sight of the one(s) who blinded them). (LB016)

The subject of (258) is understood as the same as the referent of tapuuyvey niisijyo 'one-eyed warriors' in (251). If (258) employed

niisijyo as a subject noun phrase, it would be pragmatically very odd, if not ungrammatical. The participants carrying out the action of circling would not be interpreted as equivalent to the blinded warriors, but as the 'eye sockets'. But it is also not clear that the Set I clitic riy 'third person animate plural' could co-occur with niisijyo 'eye sockets' (unless 'eye sockets' were anthropomorphized). In contrast, tápuvyey alone could be felicitously employed as a subject noun phrase in (258), referring to the blinded warriors. This shows that tapúvyey and not niisijyo must be taken as the head in (251).

As a further example, in (259) it might be argued that what the person saw was vánu 'adult male' and that júnúcha 'tapir' tells what kind of adult male it was; or alternatively, that what the person saw was júnúcha a 'tapir' and that vánu provides a further characteristic of this particular tapir.

(259) Naaniinúúfuvee júnúcha vánu jásiy.
 naada-júnúuy-muvee
 3DL-see-on:arrival:there tapir male there
 'They two saw on arrival there a male tapir/tapir male'.

However, there are two factors which allow identification of júnúcha 'tapir' as the pragmatic head. The first has to do with the unmarked semantic meaning of vánu, and the second has to do with the discourse and cultural context. In the story from which (259) is taken, two hunters are going along looking for game. In the process they see a series of animals and some people, but have not yet found a good group of game animals at the point where this excerpt occurs:

- (260) a. Naadaya jáchchiy,
naada-ya jásiy-siy
3DL-go there-AB
'They two go on from there,
- b. naadítq̃q̃ rámu, núú,
naada-jítq̃q̃ rá-mu
3DL-arrive:there INAN-LOC path
'they two arrive there at a path
- jiryátiy núúquií,
jiy-ra-tiy núú-quií
DEMO-CL:NEUT-TIY path-big
'which is a wide path
- c. naansiitarĩĩra,
naada-siita-rĩĩ-rá
3DL-follow-enroute-INAN
'they two follow along it,
- d. naaniinúúfuvée júnúcha vānu jásiy,
naada-junúuy-nuvée
3DL-see-on:arrival:there tapir male there
'they two see on arrival there a male tapir,
- e. sasiivaq̃atyĩĩryĩĩ rámu,
sa-siivaq̃ay-tĩiy-rĩĩ rá-mu
3SG-urinate-ITER-enroute INAN-LOC
'he is urinating as he goes along in
- jaq̃atóódeera.
jaq̃a-tóó-dee-ra
water-CL:bowl-DIM-CL:NEUT
a small mud hole.
- f. "Jiyunumaadyéetaní ratú",
jiyu-numaa-dyééta-ní
here-now-maybe-3SG water:hole
'"There may be a water hole here"
- g. s̃q̃utay.
sa-j̃q̃utay
3SG-say
'he (=one of the hunters) says.
- h. Naadayatĩiyiy jáchchiy.
naada-ya-tĩiyiy jásiy-siy
3DL-go-going:directly there-AB
'They two go along from there'. (HTR177-185)

When used in isolation, vānu is most neutrally interpreted as

referring to an adult human being. In this excerpt it would be rather infelicitous to utter vánu in clause (d) without júnúcha, because vánu would probably be taken as referring to a man. Seeing a human by the path would not necessarily suggest the proximity of a watering hole where animals might gather. What is significant in the context is that they saw a 'tapir', not that they saw an 'adult male'. Although vánu can perfectly well occur as an independent pragmatic head in other contexts, in this particular context it is júnúcha which is pragmatically salient.

If one tried to manipulate or deploy vánu in clause (e), the sense of clauses (d) and (e) would most likely be 'They two saw on arrival there a male tapir. The man (=one of the hunters) urinated as he went along in a small mud hole.' This suggests that vánu in clause (d) is not discourse manipulable, given that use of vánu in clause (e) would probably not be interpreted as co-referential with júnúcha vánu in (d). If, however, júnúcha occurred in clause (e), it would more easily be interpreted as coreferential with júnúcha vánu, showing that júnúcha in (d) is discourse manipulable.⁶ Júnúcha in júnúcha vánu is referential, whereas vánu is attributive and non-referential. In sum, a sentence or phrase-based view of head-ship breaks down in Yagua. But a discourse perspective as to what is, or is not, further manipulable (or pragmatically referential) disambiguates the head noun from the modifying noun.

A larger discourse perspective also makes better sense out of the noun classification data. As I will discuss in Section 3.3, classifiers (other than the 'neutral' -ra) most often occur on

descriptive modifiers when the head noun is absent from the phrase.

When the head noun is present, -ra is much more likely:

- (261) ... tapuuyey niisityadii tiiiturya raachajay.
 niisiy-tadii tiiituy-ra ra-jacha-jay
 warrior eye-CL:seed transform-CL:NEUT INAN-be-PROX2
'... it had been the warrior's transformed eyeballs'
(referring to eyeballs transformed into seeds) (LB052).

If in subsequent discourse tiiiturya 'transformed' occurred without niisityadii 'eyeballs', it could conceivably be taken as referring to any transformed entity, whether animate or inanimate. It is not as clearly discourse manipulable as niisityadii is, or even as tiiitutyadii (transform-CL:seed) might be. A hypothesis which will not be explored here is that suffixation of a more highly specified classifier to a modifier may allow an erstwhile modifier to become discourse manipulable precisely because the more highly specified classifier in some sense substitutes for the head noun. This relates partly to the question of when a classifier, rather than some other anaphoric device, is used.

3.3. Order of head noun and descriptive modifier in text

When a noun phrase contains both a head noun and a non-bound descriptive modifier, the descriptive modifier is most frequently another noun. Recall that a form is considered syntactically nominal if it can serve as subject or object of a clause, as the predicate of a predicate nominal construction, and/or as the object of a postposition. This definition of noun includes forms which are either inherent or derived nominals. The term 'inherently modifying root' is

used as defined in the introduction to this chapter (see the discussion surrounding examples (240) through (245)). In using the terms 'noun' or 'nominal', I am not concerned with whether the linguistic form is functioning as a prototypical noun in the sense of Hopper and Thompson (1984).

Text materials show that non-bound descriptive modifiers most frequently follow the head noun. In one count of well over 1000 clauses of connected text, HEAD-MODIFIER order outnumbered MODIFIER-HEAD order by about 4 to 1. The data are presented in Table 3.1 One characteristic of Yagua discourse revealed by this data is that noun phrases containing non-bound descriptive modifiers are relatively infrequent.⁷

HEAD-MODIFIER		MODIFIER-HEAD	
28	82%	6	18%

Table 3.1. Order of Head Noun and
Descriptive Modifier in Text.

In all cases of the HEAD-MODIFIER order represented in Table 3.1, the modifier is syntactically nominal. In five of the six cases

of MODIFIER-HEAD order, the modifier is also syntactically nominal. (In one case it is an inherently modifying root which will be discussed below.) The MODIFIER-HEAD order occurs under four conditions, substantiated not just by these approximately 1000 clauses but also all the other text data I have seen. First, it may perhaps occur under pragmatically or semantically marked conditions, such as when the modifier is negated or contrasted (Chapter 6). Example (262) is taken from a text where a careless boy spills the snake's poison. As a result, things in the jungle are no longer safe and people have to watch out for snakes that can kill. Example (262) contrasts how wonderful things would have been if the boy had not been careless.⁸

(262) Sámirya yanayaasara ráriy cha tóó.
 sámiy-ra jiya-nayaa-sara rá-riy
 good-CL:NEUT go-going:aimlessly-NMLZR INAN-FRUST be jungle
 'It would be good walking all over the jungle'. (LX044)

Most of the examples I have of this sort (there are not many) are potentially ambiguous, however. What looks like a 'modifier plus head noun' could perhaps be analyzed as a predicate nominal construction in which a Set II clitic does not precede the post-predicate subject noun (cf. Section 2.1.3). Example (275) below may be a clearer case of the MODIFIER-HEAD order occurring under pragmatically marked conditions.

Second, in compound nominals, the modifying noun root may occur before the head noun root (but see the discussion about (251) at the end of Section 3.2.3). In compound nouns, the two roots may be phonologically attached:

(263) rooriryuudíí
 rooriy-ruudíí
 house-ridge:pole
 'ridge pole of the house'

Third, the MODIFIER-HEAD order occurs in some nearly lexicalized phrases. For example, the root taariy 'before (in the sense of time)'⁹ is used in certain expressions to mean 'ancestor'. Taariy precedes munátyavay 'first ones' (or munátyíí 'first one') in such expressions.

(264) taariy munátyavay tápuuyvey
 munátya-vay tápuuy-vay
 before first-CL:ANIM:PL fight-CL:ANIM:PL
 'the old warring ancestors' or 'the ancestral warriors'

Fourth, inherently modifying roots may preferably precede the head noun when they are not suffixed with a classifier or other nominalizer.¹⁰

(265) Siiváay pasidyee nudidyera.
 sa-jiváay pasiy-dee nudiy-dee-ra
 3SG-work small-DIM garden-DIM-CL:NEUT
 'He worked (in, or made) a small garden'.

(266) Sa-sitya-maa rooriy tuvū-ntiy jaamu roorí-jyū.
 3SG-dig:up-PERF house pole-REP big house-AL
 'He has dug up house poles also for big house'. (TC060)

The total number of discourse tokens of MODIFIER-HEAD order with unsuffixed modifiers is small. In the great majority of cases, inherently modifying roots occur suffixed with classifiers. In this form, they follow the head noun, just as do inherently nominal roots or nominals derived from verbs or other categories.

The class of inherently modifying roots itself is small, limited to perhaps two or three items: jaamu 'big' (and its human/animate

counterpart jaamiy), sámiy 'good, well, new, pretty, beautiful', and possibly pasiy 'small'. With regard to preferred placement, pasiy 'small' follows the pattern of jaamu and sámiy, distinguishing it from other nominals.¹¹ However, pasiy occurs as the object of postpositions as in (267) and as the predicate of predicate nominal constructions as in (268) without suffixation of a classifier or other nominalizer. This suggests that it has features more characteristic of nominals:

(267) Pasidyééjü yąą pąárya.
 pasiy-dee-jü yi-ą pąą-rá
 small-DIMIN-AL 2SG-IRR scrape-INAN
 'In order to (make it) thin, you will scrape it'. (MB057)

(268) Pasidyetya jíidafudyey.
 pasiy-dee-tya jíiday-nudyey
 small-DIM-NEG fire-any:more
 'The fire was no longer small'. (TJ075)

To provide a better understanding of the syntactic distribution and textual function of suffixed versus unsuffixed modifying roots, I exhaustively examined occurrences of jaamu 'big', pasiy 'small', and more cursorily sámiy 'good, well, new, pretty, beautiful' in the Powlison concordance (Powlison and Powlison 1977). There are three syntactic patterns. The modifier may occur without any other noun as in (269). It may occur in the order HEAD-MODIFIER as in (270) and (271), or in the order MODIFIER-HEAD as in (272). In (269) and (270) jaamu 'big' occurs in a suffixed form. In (272) pasiy is unsuffixed, and in (266) above jaamu is unsuffixed. Sámiy 'good' occurs in an unsuffixed form in the HEAD-MODIFIER order in (271).

- (269) Raḡtiy jaséésiy jaḡmudúúju ...
 rá-ḡ-tiy jasiy-jásiy jaḡmu-duu-jù
 INAN-IRR-TTY grow-PROX1 big-CL:tube-AL
 'If it grows into a big flute ...' (TC040)
 (That it is a flute and not a cane or other tubular object
 is understood by previous mention of a flute in the context.)
- (270) Rásuutyityiiy riíchoo jaamurasúmaa.
 rá-suuy-tityiiy jaḡmu-ra-súmaa
 INAN-make:noise-going:directly wind big-CL:NEUT-great
 'A big wind storm came along making noise'. (FH048)
- (271) Cááva sámiy yēḡcha.
 yi-jacha
 heron beautiful 2SG-be
 'A beautiful heron you (will) be'.
- (272) Yḡḡ jḡḡtatéecū pasidyee síitye:uḡyḡḡdeeta.
 yi-ḡ jḡḡta-tée-cū pasiy-dee síityenyi-tḡḡ-dee-ta
 2SG-IRR begin-EMPH-CŪ little-DIM brush-NMLZR:INST-DIM-INST
 'You'd better begin with the little brush (to smooth out a
 blowgun)'. (MB051)

Table 3.2 presents the frequency distribution of the patterns for jaamu 'big' in suffixed and unsuffixed forms.

	UNSUFFIXED	SUFFIXED	TOTAL
MODIFIER ONLY	—	25	25
HEAD-MODIFIER	—	2	2
MODIFIER-HEAD	6	1	7
TOTAL	6	28	34

Table 3.2. Occurrences of Inherently Modifying Root jaamu 'big' in the Powlison and Powlison (1977) Concordance.

The large number of suffixed instances of jaamu which occur without an accompanying head noun in Table 3.2 suggests that the major function of classifier suffixation to inherently modifying roots (and also to inherently nominal and verbal roots) is to allow the speaker to avoid repetition of the understood head noun when it

is clear from the discourse or extra-textual context. Claiming that occurrence of the classifier facilitates 'deletion' of the head noun is the wrong way to approach the data. Rather, as is well grounded on the basis of other studies (cf. Derbyshire 1985, Lambrecht 1984, Du Bois 1984, Doris Payne to appear; T. Payne 1985), languages have an aversion to many noun phrases in naturally occurring text. This aversion stems from an economically motivated principle not to do more work than is absolutely necessary (cf. Haiman 1983:802). If there is a device in the language which permits identification of a familiar, or given, referent without recourse to a noun or full noun phrase, then the general principle is to use the more abbreviated device, all other things being equal.¹² Thus, once an entity is introduced into Yagua discourse by means of a full noun or noun phrase, if the speaker can subsequently indicate to the hearer the identity of the referent by a classifier or Set I or Set II clitic, the latter means are the encoding devices of choice. Although no rigorous discourse-based study of Yagua classifiers has yet been undertaken, one hypothesis is that when the speaker wishes to add descriptive (or quantifying) information about a referent, rather than use a NOUN + MODIFIER (or NUMERAL + NOUN) construction, the device of choice is MODIFIER + CLASSIFIER (or NUMERAL + CLASSIFIER), where the classifier adequately serves to pick out the precise referent in the given context. Classifier choice under this view is governed by a type of 'agreement' process, but within the scope of the text or sub-text, rather than within the scope of a single clause

or noun phrase. One possible historical source for clausal or phrasal agreement may be grammaticization of such discourse 'agreement'.

In the Powlison Concordance, the number of tokens of head noun plus the modifier jaamu (in either order) is too small to allow us to conclude much with certainty about basic order. However, putting the data of Table 3.2 together with other text counts, it is quite clear that unsuffixed modifying roots are dominantly pre-head, while suffixed modifiers are dominantly post-head.

It is of interest to look more closely at the unsuffixed modifying roots occurring in the MODIFIER-HEAD configuration in Table 3.2. In three out of the six cases the modifying root is written as if phonologically attached to the head noun:

(273) jaamu-riichoo
big-wind (HC035)

(274) jaamu-coodiy
big-snake (KT028, LB154)

There is no other evidence I know of to suggest that riichoo 'wind' and coodiy 'snake' serve dual status as both classifiers and nouns (they are not incorporated into numeral roots, for example). Dual status is true of some other roots, such as dasiy 'palm trunk' and dasiy 'CL:thin:pole'. (Jaamu-dasiy may refer to 'big blowgun' or 'big palm trunk', for example, depending on context). A tendency towards phonological attachment of noun roots to otherwise unsuffixed modifying roots may be one pressure towards eventual reanalysis and shortening as classifiers. At this point, however, I would not argue

that jaamu-coodiy and jaamu-richoo are modifying roots suffixed with classifiers.

Table 3.3 gives the occurrences of pasiy 'small' in the Powlison concordance. As mentioned above, based on syntactic distribution possibilities in its unsuffixed form, pasiy appears to be more nominal than jaamu. This is also supported by the 10 cases of unsuffixed tokens which occur without an accompanying clearly nominal head. (There were no cases of this type for the root jaamu.)

	UNSUFFIXED	SUFFIXED	TOTAL
MODIFIER ONLY	10	14	24
HEAD-MODIFIER	—	3	3
MODIFIER-HEAD	3	1	4
TOTAL	13	18	31

Table 3.3 Occurrences of pasiy 'little' in the Powlison and Powlison (1977) Concordance.

Again, the number of HEAD-MODIFIER and MODIFIER-HEAD tokens in Table 3.3 alone is too small to conclude much with certainty, but it adds to the evidence that nominal modifiers prefer the HEAD-MODIFIER order. The one token of a suffixed MODIFIER-HEAD phrase is possibly a pragmatically marked case of added detail restatement (Section 6.4.4):

(275) Siiváay jîî nudiy, pasidyeera nudiy.
 sa-jiváay pasiy-dee-ra
 3SG-make JIITA garden little-DIM-CL:NEUT garden
 'He makes a garden, a little garden'. (FX008)

Although unsuffixed modifiers are more frequent in pre-head position,

examples like (271) above and (276) suggest that they are not exclusively so.

(276) muchityu-jaamiy 'wild bee species'
bee-big:animate

Muchityujaamiy is the lexicalized expression for a certain type of bee. Comparison with muchityu-jaã (bee-CL:liquid) = 'honey of this type of bee', shows that muchityu is a separable morpheme in itself.

In one of the three unsuffixed MODIFIER-HEAD tokens in Table 3.3, pasiy appears to be phonologically attached to the head. There is no other evidence that the head in this case should be considered a classifier:

(277) Pasiquichidyusitya
pasiy-quichidyusiy-ta
little-knife-INST
'with a pocket knife'

In conclusion, the discourse data in Tables 3.1 through 3.3 show that with nominal modifiers the HEAD-MODIFIER order is more frequent in naturally occurring text, while the MODIFIER-HEAD order perhaps occurs under pragmatically marked circumstances and in more idiosyncratic lexicalized expressions. Based on morphological simplicity, one might want to argue that MODIFIER-HEAD is the syntactically basic order, given that jaamu 'big' and perhaps pasiy 'small' and sãmiy 'well, good, new, pretty, beautiful' may preferably occur in pre-head position when unsuffixed. But the total number of discourse tokens is smaller than we would like to make a definitive claim in this direction.

Hawkins (1983:13) gives the following criteria for determining basic constituent order when there are competing orders:

1. Where one doublet occurs (e.g., NAdj) with greater frequency than the other (AdjN) in attested samples of the relevant language, then, all things being equal, the more frequent doublet is the basic one.
2. Where one doublet (e.g., NAdj) is more frequent within the grammatical system of the language than the other (e.g., the quantity of adjective lexemes that occur postnominally exceeds the number that occur prenominal), then, all things being equal, the grammatically more frequent doublet is the basic one.
3. Where one doublet is grammatically unmarked and the other marked (i.e., a special type of grammatical meaning may be associated with one order of Adj and N, but not the other, over and above their lexical meanings; one word order may not undergo certain general rules that the other does, or may be generated by rules of a more restricted nature; one word order may be the one chosen by exceptional modifiers, whose exceptional status is marked in the lexicon; etc.), then, in all these cases, the unmarked order is the basic one.

Criteria (1) and (3) would pick out HEAD-MODIFIER as the basic order since it is most frequent in naturally occurring samples of text, and it is not the order associated with semantically and pragmatically marked situations such as focus of contrast, negation, etc. where there is some meaning above and beyond the lexical meanings.¹³ Criterion 2 might be said to pick out MODIFIER-HEAD as basic, given that there is a larger pre-head class of inherently modifying roots, compared to a post-head class of zero inherently modifying roots. However, there are only two roots which are quite clearly non-nominal (jaamu 'big' and sámiy 'good, well, new, pretty, beautiful'), and one of these is both adverbial and adjectival (sámiy). The pre-head class

of inherently modifying roots is very small. In contrast, the post-head class of nominal modifiers is an open, unlimited class. Overall then, if any order is to be taken as basic, even by Hawkins criteria it must be HEAD-MODIFIER. This is consistent with VIN which states that if the dominant order is (as expected) postnominal, it is still common to find a small class of prenominal adjectives. A perhaps more noteworthy typological observation is that modified noun phrases occur quite infrequently.

3.4. Complex modifying phrases

Even more infrequent than modified noun phrases are noun phrases which contain complex modifying phrases. When these occur, the adverbial modifier consistently precedes the descriptive modifier:

(278) jááryiy sámirya 'very good'
 very good

(279) jááryiy jaamu ríichoo '(a) very big wind'
 very big wind

3.5. Genitives

Genitive (possessive) phrases are of three types. First, if the possessor is expressed only by a noun or noun phrase, the genitive noun precedes the head noun (GEN + NP):

(280) Rayarúy Alchico roorimýúju.
 ra-jiya-rúy rooriy-mu-jú
 1SG-go-POT Alchico house-LOC-AL
 'I want to go to Alchico's house'.

- (281) Saramútifúúyanu jánariy munátyii síiva.
 sa-ramútiy-núúy-janu munátya-ḡ sa-iva
 3SG-ford-IMPF-PAST3 deer before-NCM:ANIM:SG 3SG-DAT
 'The deer's ancestor used to ford across him (to
 cross the river)'. (FSQ001)

Second, if the possessor is expressed via a Set I clitic, the clitic is phonologically prefixed to the head noun (CLITIC + NP):

- (282) Rayarúúy saroorimyúju.
 ra-jiya-rúúy sa-rooriy-mu-jú
 1SG-go-POT 3SG-house-LOC-AL
 'I want to go to his/her house'.

- (283) Jááryiy rjċánu jimyúrřaayanu.
 ray-jċánu jiy-mírřaay-janu
 very 1SG-like 2SG-sing-INF
 'I really like your song/your singing'.

Third, if the possessor is expressed via a Set I clitic plus a noun (phrase), the clitic is phonologically prefixed to the head noun as in (282) and (283), but the genitive noun phrase follows the head noun (CLITIC + NP + GEN):

- (284) Ravyaąata şumufu Alchico.
 ray-vaąata sa-jumufu
 1SG-want 3SG-canoe Alchico
 'I want Alchico's canoe'. OR: 'I want the canoe of Alchico'.

These three patterns are identical to use of Set I clitics and noun phrases for referencing subjects in Type 1 clauses (Section 2.1.1.1).

In one study of seven folkloric narrative texts, distribution of the three genitive phrase types was as given in Table 3.4.

GEN + NP	126	27%
CLITIC + NP	327	70%
CLITIC + NP + GEN	12	3%
TOTAL	465	100%

Table 3.4. Distribution of Genitive Phrase Types

In an effort to determine factors motivating choice of one construction type versus another, possessive phrase type was cross-tabulated with given versus new status of the possessor. A participant was judged as having given status if it was presumed to be in the hearer's active consciousness (Chafe 1984) at the time the phrase occurred in the discourse. It was judged as being in the hearer's active consciousness either by virtue of being mentioned in the preceding discourse (if it was a major participant throughout the discourse recent mention was not necessary), by virtue of being deictically present in the extra-textual context, by virtue of being available on the basis of a 'frame' (e.g. given a house (the frame) in Yagua culture, one can generally assume there is a ladder to the house as well), or by virtue of being culturally known information. The data are presented in Table 3.5.¹⁴

	GEN + NP	CLITIC + NP	CLITIC + NP + GEN
NEW	93	1	10
GIVEN	33	326	2
TOTAL	126	327	12

Table 3.5. Cross-tabulation of Genitive Noun Phrase Types Relative to Given Versus New Informational Status of the Possessor.

A major difficulty in working with text material rather than with psycholinguistic experimental data is that the assumptions of the speaker about the cognitive status of any particular piece of information in the mind of the hearer at the time of speaking are not necessarily transparent to the analyst. The less one is familiar with the folklore and cultural milieu, the more likely it is that he or she will judge information to be new and indefinite, when in reality the speaker may have assumed that that information was given and/or definite to persons well within the culture. But it is also possible that analytical errors could be made in the opposite direction. As Jack Du Bois has pointed out (personal communication), when a folkloric story begins, information may be assumed to be given on the basis of 'prior texts' current in the culture (Becker 1979), and may be presented as such. But once the story proper begins, it takes on features of being a world unto itself, and information that should technically be expected or given based on cultural knowledge and prior texts is presented as if it were new or indefinite. Such strategies help build suspense and make the story worth telling. If everything is assumed to be given and is presented as such, the story

is 'flat' and lacks interest in terms of pragmatic speaker-hearer interactions. All of this points to the need for experimental data, rather than just static text data, in evaluating encoding of pragmatic parameters.

Nevertheless, a statistical analysis of the text data provides some safeguard, because it gives a probability measurement as to whether an observed pattern might be due to chance or not. If a particular correlation is significant at a very high level, we may assume that even if analytical errors have crept into the data, the number of these could not be so large that the correlation should in actuality be reduced to a non-significant level. Certain tendencies in Table 3.5 are extremely strong. We can safely say that the simple clitic construction correlates strongly with given information, while both constructions that involve noun phrases correlate strongly with new information. When the two noun phrase constructions are grouped together as opposed to the simple clitic construction, the value of χ^2 with Yate's correction for the data in Table 3.5 is 308.3. This is significant at the .001 level with one degree of freedom. This means that there is a significant association between given versus new informational status of the possessor, and encoding via a simple clitic versus a noun phrase construction. This is just what we would expect.

However, the givenness parameter does not distinguish between the GEN + NP and the CLITIC + NP + GEN constructions represented in Table 3.5. This is partially because the number of tokens of the latter type is too small to calculate a valid χ^2 . Another major

problem with the data in Table 3.5 is enforcement of binary distinction between 'given' and 'new' on the data. Chafe (1984) argues that there is a continuum between information which is in the hearer's immediate active consciousness (i.e. given information), and information which has been totally out of the active consciousness (i.e. highly non-given information). Information might alternatively be in the hearer's peripheral consciousness, or may be textually new but situationally highly expected. Experimental data sensitive to such factors might help differentiate between the two noun phrase constructions. Nevertheless, Table 3.5 shows that of the 138 cases where a noun phrase was used to encode the possessor (the sum of the GEN + NP, and CLITIC + NP + GEN constructions), the CLITIC + NP + GEN construction occurs only 9% of the time. Sheer frequency thus argues that GEN + NP must be taken as the basic order whenever a noun encodes the possessor.

3.6. Postpositional phrases

Most attested verb initial languages have prepositions. This is in line with predictions of a consistent head-modifier ordering principle. Yagua, however, is consistently postpositional. Based partially on data presented in Powlison (1982) I distinguish between 'concrete' postpositions (cf. Lyons 1968:295 'local' cases), and 'grammatical' postpositions (cf. Lyons 1968:295 'abstract' cases). Concrete postpositions are semantically highly specific. There are over 30 of these. Fuller exemplification is given in Payne and Payne,

in progress, and especially in Powlison (1982), but a few examples are given here:

- | | | |
|-------|--|--|
| (285) | jifumutqoqça
jiy-mumutu-jachça
2SG-shoulder-upon | 'on top of your shoulder' |
| (286) | vaturuy jısaa
woman:with:children COM | 'with the woman' |
| (287) | jimyicharanaachqoq
jimyiy-sara-naachqoq
eat-0:NOM-towards | '(looking) for food' |
| (288) | cajiijyaanubaa
cajiiy-jaa-nubaa
coffee-CL:liquid-mixed:in:with | 'mixed in with coffee
(e.g. sugar)' |
| (289) | miisaansaarajju
miisa-janu-saarajju
heal-INF-extent:of | 'until healed' |

There are four 'grammatical' postpositions (though the dividing line between grammatical and concrete postpositions is not sharp):

- | | | | |
|-------|-------------|------------|-------|
| (290) | -jü | 'allative' | (AL) |
| | -siy | 'ablative' | (AB) |
| | -va or -iva | 'dative' | (DAT) |
| | -mu or imu | 'locative' | (LOC) |

Many postpositions are transparently related to nouns, and a few to verbs. But the grammatical postpositions are more bleached semantically than the concrete ones and are used in a wider variety of syntactic contexts. The allative and ablative postpositions can be suffixed to the dative -va/-iva, or locative -mu/-imu, or to any concrete postposition. Certain verbs are subcategorized to take objects in the dative case. When suffixed to nonfinite verbs the locative is extended to indicate 'while' and the allative indicates

'purpose' (see Payne and Payne, in progress, for exemplification beyond what is given below). The instrumental -ta is similar to the locative in indicating 'while' when suffixed to a nonfinite verb, but the locative is far more common in this function (Section 2.11.7). The postposition -túumu 'beside' is also extended to mean 'while' when suffixed to a finite adverbial clause (Section 2.11.3).

According to Powlison (1982), the allative and ablative postpositions indicate motion towards and motion away from the point of focus, while the dative, locative and the concrete postpositions indicate a position at rest relative to the point of focus. The ablative -siy is probably historically related to the verbal suffix -siy/-chiy 'action done upon departure' and/or to the verbs siy 'to run', or maasiy 'to get up, go out'. The locative -mu or -imu is possibly related to the locative word múiy 'yonder'.

Some postpositions are always phonologically bound to the noun or Set I clitic:

(291) Riiváárya Dorijyu.
 ray-jiváay-rà Doriy-jÿ
 1sg-make-inan Doris-AL
 'I made it for Doris'.

(292) Siiváárya rájyu.
 sa-jiváay-rà ray-jÿ
 3SG-make-INAN 1SG-AL
 'She/he made it for me'.

Others are phonologically free when postposed to a noun but phonologically bound when postposed to Set I clitics:

(293) Ratyñũchu vaturũy jĩsaa.
 ray-tũũchu
 1SG-converse woman:with:children COM
 'I talked with the woman'.

(294) Ratyñũchu sũĩsaa.
 sa-jĩsaa
 3SG-COM
 'I talked with him/her'.

As with genitives (Section 3.5), postpositional phrases have three forms. Postpositions may occur suffixed to or following noun phrases (NP + P), suffixed to a Set I clitic (CLITIC + P), or suffixed to a Set I clitic with the coreferential noun phrase following the postposition (CLITIC + P + NP). Compare the following with (293) and (294) above:

(295) Ratyñũchu sũĩsaa vatura.
 sa-jĩsaa
 3SG-COM woman:without:children
 'I talked with the woman'.

(296) Radĩiy sũĩva Alchico.
 ray-dĩiy sa-ĩva
 1SG-see 3SG-DAT Alchico
 'I see Alchico'.

The NP + P and CLITIC + P patterns are by far the most common. In one study of 341 clauses containing 110 postpositional phrases, the CLITIC + P + NP pattern accounted for only 7% of the cases, while the CLITIC + P pattern accounted for 37% and the NP + P pattern for 55% (Doris Payne, to appear d). In that study, 85% of NP + P phrases were new information, while 98% of CLITIC + P phrases were given information. Out of 8 instances of CLITIC + P + NP phrases, six encoded given information, and two encoded new information.

In the 11 texts discussed in Section 1.4 (Table 1.1), 687 adpositional phrases occur.¹⁵ Frequency distribution of the three types is presented in Table 3.6. Nearly the same distribution is found as in the smaller corpus reported in Doris Payne (to appear d).

NP + P	349	51%
CLITIC + P	283	41%
CLITIC + P + NP	55	8%
TOTAL	687	100%

Table 3.6. Distribution of Adpositional Phrase Types

The simple clitic strategy overwhelmingly encodes given and definite information and I will not explore it further here (see T. Payne 1985 for further discussion of its conditions of use). Tables 3.7 through 3.9 present data on the other two types relative to parameters of givenness, definiteness, and referentiality. Table 3.7 shows that 50% of all adpositional phrases containing an NP encode given information, while another 50% encode new information.

	GIVEN		NEW		TOTAL	
NP + P	168	48%	181	52%	349	100%
CLITIC + P + NP	33	60%	22	40%	55	100%
TOTAL	201	50%	203	50%	404	100%

Table 3.7. Cross-tabulation of Adpositional Phrase Types with NP's Relative to Given versus New Information

The data in Table 3.8 include only referential mentions, since

the contrast between definite and indefinite is essentially neutralized in non-referential mentions.¹⁶

	DEFINITE		INDEFINITE		TOTAL	
NP + P	224	86%	37	14%	261	100%
CLITIC + P + NP	42	81%	10	19%	52	100%
TOTAL	266	85%	47	15%	313	100%

Table 3.8. Cross-tabulation of Adpositional Phrase Types with NP's Relative to Definite versus Indefinite Information

Table 3.8 shows that in this corpus, 85% of noun phrase objects of postpositions encode definite information, and only 15% encode indefinite information. Comparison with the percentage figures in Table 3.7 for givenness might suggest that a fairly large number of new mentions must be definite, rather than indefinite, or else we might expect the indefinite figures to more closely follow the new figures. But the two tables are not comparable given that Table 3.7 includes non-referential mentions, while Table 3.8 does not. Essentially all of the non-referential mentions are new information.

Table 3.9 suggests that the referentiality parameter may distinguish the two noun phrase constructions more than either givenness or definiteness. As I will show below, however, an association between referentiality and construction type is only apparent and not statistically valid.

	REFERENTIAL		NONREFERENTIAL		TOTAL	
NP + P	261	75%	88	25%	349	100%
CLITIC + P + NP	52	95%	3	5%	55	100%
TOTAL	313	77%	91	23%	404	100%

Table 3.9. Cross-tabulation of Adpositional Phrase Types with NP's Relative to Referential versus Nonreferential Status

It is important to evaluate the data statistically, as percentages do not tell us to what extent an apparent association might be due simply to chance. The null hypothesis for Tables 3.7 through 3.9 is:

There is no association between choice of adpositional phrase type containing an NP and status as given versus new (Table 3.7); definite versus indefinite (Table 3.8); referential versus non-referential (Table 3.9) informational status.

For each Table 3.7 through 3.9 the value of χ^2 with Yate's correction is not significant at the .05 level with one degree of freedom. Thus, the null hypotheses cannot be rejected. Choice between the the two phrase types which contain an NP does not, apparently, depend on pragmatic factors at this rather gross level of sophistication. As with genitive phrases, a more sophisticated givenness metric might differentiate them. T. Payne's (1985) study of topic continuity (cf. Givón 1983) reports the referential distance figure for the NP + P construction as 15.13, and for the CLITIC + P + NP construction as 9.91.¹⁷ These figures suggest the hypothesis that the more complex construction encodes participants which are more nearly given. That

is, the participant may be judged to still be in the hearer's active consciousness, or perhaps in peripheral consciousness, and thus there is a tendency to encode them with just the clitic construction. But because the participant is (on the average) mentioned about 10 clauses earlier, the speaker judges that a resumptive NP might be needed to make the referent clear and unambiguous. The figure of 15.13 for the NP + P construction correlates well with the figures in Doris Payne (1984c) for Papago new mentions. In Papago, items which have been mentioned at a distance of 15 or 16 clauses are treated just like items which have not been mentioned at all: they are essentially new. Whether this hypothesis should prove to be right or not, the frequency differences in Table 3.6 argue strongly that the CLITIC + P + NP construction is not the most basic one, and there is no reason to regard Yagua as anything other than postpositional. If the CLITIC + P + NP pattern were to become stronger, it might be re-evaluated as a prepositional construction in which the clitic is an inflection on the preposition. This would be more consistent with a verb initial type.

3.7. Summary

In this chapter I have discussed basic constituent order within noun and adpositional phrases. Within the noun phrase, demonstratives are consistently pre-head, and numerals are practically so. Genitives are essentially pre-head also. Descriptive modifiers are strongly post-head, though the basic order here may be more controversial. However, if we take Hawkins' criteria as determinative, the basic

order is best viewed as head noun + descriptive modifier. This is in line with the consistently post-head order of relative clauses discussed in Section 2.11.4. Finally, the language is postpositional.

There is variation in both genitive and adpositional phrases as summarized in Table 3.10. For both phrasal categories, pre-head position is numerically dominant when noun phrases encode the dependent.

	NP + HEAD		CLITIC + HEAD		CLITIC + HEAD + NP		TOTAL
GENITIVE	126	27%	327	70%	12	3%	465
ADPOSITION	349	51%	283	41%	55	8%	687

Table 3.10. Cross-tabulation of Genitive and Adpositional Phrases According to Type.

Table 3.10 suggests that genitive constructions are more likely to evidence the CLITIC + HEAD strategy than are adpositional phrases. This is entirely expected since possessors are most commonly animate, and thus tend to have continuity throughout (some portion of) the discourse. They thus tend to be given and definite. The clitic strategy strongly correlates with given/definite mentions. Objects of postpositional phrases, however, are more likely to encode inanimate entities which have less continuity throughout the discourse (cf. Doris Payne 1984c). Thus, they encode a higher incidence of new entities (roughly 50%) than do genitive phrases, resulting in a higher percentage of noun phrase encodings.

NOTES TO CHAPTER 3

¹ See Payne and Payne (in progress) and Doris Payne (to appear d) for exemplification of these rare orders.

² The definition of modifying root excludes adverbs which can only modify verbs. There is at least one modifying root sámiy 'good, well, new, pretty, beautiful' which can modify either nouns or verbs in its unsuffixed form.

³ Foley and Olson (1985) and the literature on verb serialization are an explicit departure from this tradition. In Chapter 5 I argue that more than one verb does not necessarily correlate with more than one clause in Yagua.

⁴ The major case where heads agree with their dependents within noun phrases is in Genitive + Noun constructions where the head noun may agree with some features of the genitive expression (e.g. in number). Alternatively, the genitive may agree with some features of the head noun. A primary reason why genitives commonly differ from other nominal modifiers may be because the genitive referent is more likely animate, topical, or thematic throughout a portion of the discourse: it is the salient one. This also motivates the phenomenon of subject 'possessor raising' in some languages (cf. Munro and Gordon 1982) in which the possessor, rather than the erstwhile head noun, takes on subject properties.

⁵ We would have to stipulate that not all compound nouns need be lexicalized expressions, and that creation of compounds of this sort must be a productive process.

⁶ In actual fact repetition of júnúcha would be unlikely in (e) unless it were in some way pragmatically marked (Chapter 6).

⁷ The overall percentage of noun phrases in narrative discourse, irrespective of whether they contain non-bound modifiers, is discussed in Chapter 6.

⁸ The habitual analysis for -sara in (262) makes less sense than the nominalizer analysis (cf. Section 2.2.1) in that I have never seen a non-nominal (i.e. verbal) complement of a BE verb.

⁹ Taariy may have nominal status as suggested by the term for 'morning' taarimysiy in which taariy is etymologically the object of the postpositional complex -mu-siy LOCATIVE-ABLATIVE. Presumably only nouns can serve as the objects of postpositions.

¹⁰ The suffix -dee 'diminutive' in (265) does not have a nominalizing effect.

¹¹ It may be that rájuu 'much, many' should also be considered an inherently modifying root. It occurs both suffixed and unsuffixed. When unsuffixed it is not phonologically attached to the head noun. Unlike other modifying roots, however, it precedes the head noun when suffixed as well as unsuffixed, which is the characteristic position for all quantifiers.

¹² T. Payne (1985, Chapter 5) delimits a variety of factors motivating use of noun phrase devices besides just new informational status and potential ambiguity due to having several participants 'on stage' at the same time. For example, use of noun phrases correlates with and helps the hearer to identify thematic breaks in the organization of a text. Pragmatically marked contexts also motivate use of noun phrases.

¹³ Hawkins' term 'grammatical meaning' is probably to be interpreted as the extra pragmatic meaning stemming from pragmatically marked contexts or constructions.

¹⁴ These figures are also reported in Doris Payne (to appear d). A parallel cross-tabulation of definite and indefinite status of the possessor was not done. Essentially all possessors in this particular corpus were identifiable (=definite).

¹⁵ The figures on obliques reported in Chapter 6, Table 6.13 and following, include all obliques irrespective of whether they are adpositional phrases or other time or locative phrases. Those reported here include only adpositional phrases.

¹⁶ Givón (1984 and elsewhere) identifies all non-referential mentions as indefinite.

¹⁷ Referential distance is the number of clauses since the last mention of the participant in question, averaged over all tokens of the construction type. If the participant has not been previously mentioned, or has been last mentioned at a distance of greater than 20 clauses, then the upper limit of 20 is arbitrarily chosen.

Chapter 4: Noun Classification and Nominalization

This chapter is centrally concerned with establishing whether or not there is agreement between constituents of the noun phrase. According to the verb initial norm (VIN) we should expect little, if any, agreement between modifiers and their head nouns. In Yagua, both demonstratives and numerals agree in noun class with their head nouns. Classifiers are the overt mark mark of this inflectional agreement. Other uses of classifiers, however, are derivational.

In order to defend the claim that Yagua classifiers have both inflectional and derivational functions, significant discussion will be devoted to the inflectional - derivational issue, particularly within the Extended Word-and-Paradigm (EWP) model of morphology (Thomas-Flinders 1981; S. Anderson 1982). Although this model has decided advantages over traditional models of morphology, I will argue that a prototype view of categoriality proves most insightful in understanding the nature of Yagua classifiers. The prototype view may, in fact, lead to more adequate formulations of morphological processes within the EWP model.

Yagua has an extensive system of over 40 noun classifiers (CL) (Doris Payne, to appear b; Powlison and Powlison 1958). Animate classifiers, which are differentiated for number, are as follows:

- (297) -nu 'animate singular'
 -nuuy 'animate dual'
 -vay 'animate plural'

I will not present the entire list of inanimate classifiers here but a few examples of classifiers infixes to the numeral 'one' within noun phrases follow:

- (298) tá-nu-quiï níínu
 one-CL:thick:pole-one pole
 'one pole' or 'one tree trunk'
- (299) tá-puu-quiï pída
 one-CL:short:tubular-one battery
 'one flashlight battery'
- (300) tásquii dáanta
 tá-siy-quiï
 one-CL:small:round-one medicine
 'one pill'
- (301) tádaquiï júmurutąą (Vainilla dialect)
 tá-day-quiï
 one-CL:cutting:instrument-one machete
 'one machete'

Depending on whether the identity of a participant is clear in the discourse context, the 'neutral' classifier -ra may sometimes be used in place of a more specific classifier to refer to any inanimate as in (318) below, and sometimes to an animate or human entity. Use of -ra is particularly likely when demonstratives agree with an inanimate noun which is overtly present in the phrase, regardless of the more specific class of that noun, as in (320) below.

4.1. Derivational uses of classifiers

Classifiers derive nouns from verb roots as in (302) and (303), from quantifiers as in (304), and from inherently modifying roots as in (305) and (306). Classifiers may be suffixed to inherently nominal roots to derive other nouns, as in (307) through (309).¹ All of the approximately 40 Yagua classifiers, both animate and inanimate, have these functions. In (302) -jây is a classifier which derives historically from the noun jay 'skin' or 'pelt'. As a classifier it is used for any skin-like item such as cloth, clothing, and mosquito nets. The classifier -dasiy in (305) derives from the name of a type of palm tree. As a classifier it is used for any long thin pole-like object. It contrasts with the classifier -nu in (298) above, which is used for thicker pole-like objects. It is homophonous with the animate singular classifier -nu in (303) which is probably related to the term vânu 'adult male (most neutrally human)'. The classifier -nuu in (308) is isomorphic with the term for 'road' or 'path'. As a classifier its use is also extended to longitudinal water routes. The classifier -jaâ in (309) is isomorphic with the term for water. As a classifier it can refer to any sort of liquid. The etymologies of the classifiers in (304), (306) and (307) are not as clear to me, though the neutral classifier -ra in (306) is conceivably related to the inanimate Set II clitic -râ.

(302) tiryôô-jây 'sleeping mat'
lie:down-CL:pelt

- (303) junúufu 'alive one'
 junúuy-nu
 live-CL:ANIM:SG
- (304) rájuu-see 'much manioc, sticks, etc.'
 much-CL:short:stick
- (305) jáamu-dasiy 'big blowgun, pole, etc.'
 big-CL:thin:pole
- (306) sámirya 'good one'
 sámiy-ra
 good-CL:NEUT
- (307) saniisityadii 'his/her eyeball'
 sa-niisiy-tadii
 3SG-eye-CL:seed
- (308) jimityq̄omunsiy 'mouth of lake'
 jimityq̄o-nuu-j̄usiy
 lake-CL:road-mouth:of:river
- (309) nóónoo-jaá 'kerosene'
 light-CL:liquid

Classifiers may occur in the predicate of predicate nominal constructions. In this context they serve to derive a noun from an inherently verbal, modifying, or other nominal root, as illustrated in (310a) and (311a). They are not syntactically required in predicate nominal constructions (all that is required is that the predicate be nominal). When classifiers do occur, there are semantic restrictions such that anomalous pairings of classifier with class-of-subject noun do not occur. Compare the (a) and (b) forms of (310) and (311):

- (310) a. Junúufuníi jif̄u quiiv̄aday.
 junúuy-nu-níi jiy-nu quiiv̄a-day
 live-CL:ANIM:SG-3SG DEMO-CL:ANIM:SG fish-DAY
 'This fish is alive'. (Lit: 'This fish is an alive one'.)

b. *Junúúcheeníí jífú quiiváday.
 junúúy-see-níí
 live-CL:short:stick-3SG

(311) a. Machóóranumaa riryooriy.
 machóó-ra-numaa riy-rooriy
 remain-CL:NEUT-now 3PL-house
 'Their house was now a remaining thing'.

b. *Machóónnumaa riryooriy.
 machóó-ni-numaa
 remain-CL:ANIM:SG-now

The fact that classifiers are not obligatory in predicate nominal constructions suggests that choice of classifier in this function may not be due to an inflectional agreement process. That is, occurrence and choice of classifier is not dependent on the syntactic relationship obtaining between the subject and the predicate. At present, there are no reasons for supposing that predicate nouns containing classifiers are not fully lexicalized, and that any restrictions obtaining between subject and predicate nouns are not just semantic selectional ones.

Classifiers may also occur on descriptive modifiers within noun phrases.

(312) Celinajjy suutajárya sújay mííjay.
 Celina-jjy suuta-jáy-rà míí-jáy
 -DL wash-PROX2-INAN cloth dirtytness-CL:cloth
 'Celina washed the dirty clothes yesterday'.²

Despite the fact that -jáy might appear to be functioning inflectionally in (312) (showing that míí 'dirtytness' agrees in class with the head noun sújay 'cloth'), there is evidence that when classifiers occur on descriptive modifiers their function is not inflectional. First, classifiers need not occur on all descriptive

modifiers. If this were a classic case of inflection we would expect classifiers to be obligatory (at least in the vast majority of the cases). Though inflectional paradigms can sometimes be defective, in Yagua modified noun phrases use of classifiers is 'optional' in the sense that a classifier may or may not be present with any given noun plus modifier combination. For example, both of the following occur:

(313) rábiì rúnabii 'its red flower'
 rúnay-bii
 its:flower red-CL:flower

(314) rábiì rúnay 'its red flower'
 its:flower red

Second, when classifiers do occur on descriptive modifiers, they generally do so by virtue of serving to derive a nominal form as in (302) through (309) above. Recall that nouns are syntactically identified by the fact that they can function as the syntactic subject or object of a clause, as the object of a postposition, or as the predicate of a predicate nominal construction. Descriptive modifiers are most frequently syntactically nominal (Chapter 3). A classifier need not occur on the descriptive modifier (though it may) if the modifier is either inherently nominal or is already a derived noun. For example, most color terms (and many concepts which translate as abstract nouns in English) are inherently nominal and need not occur with classifiers when modifying another noun:

(315) sunupanu rúnay
 anatto red
 'red anatto' (LB071)

Míi 'dirty' or 'dirtyness' in (312) above is also an abstract nominal root as shown by the fact that in its unsuffixed form it may occur as the subject of a predicate nominal construction:³

(316) Míi riiva.
 ray-iva
 dirtyness 1SG-DAT
 'I am dirty'. (Lit: 'Dirtyness is to me'.)

When non-nominal roots are used as descriptive modifiers, they must be first nominalized (with a very few exceptions discussed in Chapter 3). Classifiers fulfill this nominalizing function. In (317) jaamu is an inherently modifying (non-nominal) root, as shown partly by the fact that it may not occur as the predicate of a predicate nominal construction unless it occurs suffixed with a classifier or some other nominalizer.

(317) murijyuu jaamucaajjuuca
 muriy-juu jaamu-caa-juu-caa
 vine-CL:string big-long-CL:string-long
 'long piece of vine' (LB019)

Example (318) shows that if a classifier does occur on a descriptive modifier, it could be the neutral -ra rather than a classifier that more precisely corresponds to the specific class of the head noun as was the case in (312) and (313) above.

(318) moo jururya
 juruy-ra
 point powdered-CL:NEUT
 'powdered point (i.e. of a penis covered with flour)' (LB156)

To summarize the discussion so far, classifiers appear to have the following properties:

[1] When suffixed to roots which are not inherently nominal, they change word class, allowing the derived nominal to stand as the predicate of a predicate nominal construction, as a non-bound descriptive modifier within a noun phrase, or as a nominal in some other syntactic environment (cf. 302 - 306).

[2] When suffixed to inherently nominal roots, they result in substantial change in meaning (cf. 307 - 309).

[3] When they do occur as part of predicate nominals and descriptive modifiers as described above, which classifier(s) may occur is selectionally restricted by the class of the subject or head noun (keeping in mind the additional generality of the neutral classifier -ra). There is no evidence to argue that these restrictions are anything but semantic, in terms of what 'makes sense' according to a given world view (cf. 310 - 318).

Characteristics [1] and [2] show that classifiers have specifically derivational functions. [3] does not so clearly argue for derivational status, but neither does it constitute evidence of an inflectional function.

4.2. Inflectional uses of classifiers

Classifiers are obligatorily suffixed to demonstrative roots and infixes to numerals (also see (298) through (301) above):

- (319) jifu vānu 'this man'⁴
 jiy-nu
 DEMO-CL:anim:sg man
- (320) jichee múúchee 'this pencil'
 jiy-see múúy-see
 DEMO-CL:stick write-CL:stick
- OR: jirya múúchee 'this pencil'
 jiy-ra múúy-see
 DEMO-CL:NEUT write-CL:stick
- (321) tá-juu-quii tuváriy vada 'one chicken egg'
 one-CL:egg-one chicken egg

Examples such as (302) through (309) in Section 4.1 provide incontrovertible evidence that classifiers serve a derivational function. But this is not the whole story. It appears that choice of classifiers with demonstratives and numerals is governed by inflectional processes.

Many rules of thumb are scattered throughout the literature for distinguishing inflection from derivation. But it often turns out that such rules break down in the face of actually occurring morphology. To give one familiar example, we generally assume that inflectional morphology is highly productive. Yet we intuitively want to say that certain forms are inflectional even though there are limitations on productivity or defective paradigms. S. Anderson (1982:585, citing Halle) mentions a large class of Russian verbs which lack first person singular present forms. But despite this limitation on productivity, linguists do not conclude that agreement of verbs with their subjects in Russian is derivational. The clearest criterion for inflectional status would be to show that choice of a particular formative is dependent on something elsewhere in the syntactic construction, and that the dependency is not purely a

semantic one. If it were just semantic, then it might be argued that only semantic selectional restrictions between forms actually derived in the lexicon are what is at issue. (I suggested this may be the case for choice of classifiers on Yagua predicate nominals and on descriptive modifiers within noun phrases in Section 4.1.) Although agreement processes are often based on semantic features, the semantic features associated with agreeing inflectional forms are characteristically bleached. Thus they can be extended to cases which on pure semantic grounds do not fit very well: idiosyncracies creep into a system formerly organized along semantic parameters.⁵ This type of semantic bleaching is an important element in grammaticization of what may formerly have been just semantic selectional restrictions. One of the difficulties in deciding between an analysis in terms of inflectional agreement versus selectional restrictions, then, is that if we view language as even partially residing in society rather than in the mind of any individual speaker (the view of de Saussure), grammaticization cannot be taken as an instantaneous process. Even if we take language as residing in the mind of an individual speaker, it is not clear to me that the speaker always 'knows' whether something is grammaticized or not. There is an objective continuum between fully semantic selectional restrictions versus fully grammaticized agreement. Insisting on a categorical distinction is perhaps an idealization.

It follows that whether essential syntactic reference is made to something elsewhere in the larger syntactic structure may depend on the particular model via which one views the data. For example, if we

operate within a model where aspect is specified within an inflectional (INFL) node, then spelling out of a particular aspect category on the verb must make essential reference to the aspect specified in INFL. Consequently, the rule must be inflectional. There are nevertheless cases where, within almost any model, the relationship between a formative and some other element in a given construction would be attributed to the syntactic relationship obtaining between the two elements.

In particular, if we could find cases where the morphosyntactic categorization of certain Yagua nouns is not transparently semantically based, but is synchronically idiosyncratic, and if in a particular construction choice of classifier co-occurring with the noun corresponds to the idiosyncratic class rather than the 'real world' semantic features of the noun, then it would provide fairly convincing evidence that these uses of classifiers constitute an inflectional agreement phenomenon.⁶ It is important that we should have independent evidence, apart from just classifier choice, as to the morphosyntactic category of the noun in question. More precisely, the properties of such a case are as follows:

(322) Given:

1. Some lexical item A such that:
 - (a) A has semantic features Y (in accordance with a given world view),
 - (b) A is of morphosyntactic class X (where X may have been historically semantically based, but is not strictly so synchronically), and $X \neq Y$;
2. Some element $B \neq A$ such that, whenever A and B co-occur in a given syntactic construction, (some) features of B co-vary with (some) features of A;
3. The features of B co-vary with X and not with Y;

Then: B is syntactically dependent on A.

There are a number of Yagua nouns which (at least according to a Western logic or view of the world) are inanimate. This list includes such things as the stars, the moon (and months), motors, mirrors, photographs, brooms, fans, manioc beer strainers, rocks, pineapples, and watering holes. That the class of these entities is grammatically animate is independently shown by choice of Set I and Set II clitics when they serve as subject or object of a clause (cf. Chapter 2):

(323) Ravyaḡatanií ravichu.
ray-vaḡata-níí
1SG-want-3SG:ANIMATE rock
'I want the rock'.

*Ravyaḡatá-rà ravichu.
-INAN

Animate classification of certain of these nouns is based on a 'Domain of Experience Principle' (Dixon 1982; Lakoff 1984): 'If there is a basic domain of experience associated with A, then it is natural for entities in that domain to be in the same category as A'. Thus, mirrors and photographs are almost exclusively (in Yagua experience) associated with and reflective of animate entities (people). Thus,

they are classed as animate by experiential association. Other items may be classed as animate based on beliefs, which are also a type of experiential association. The Sun is the Moon's son via an incestuous relationship, after which both ascended to the sky out of shame. At least one star, which is often seen near the moon, is a nephew of Moon's, and all stars are evidently thought to possess power to do harm (P. Powlison 1969:46).

Animate classification of certain other nouns can be motivated by a cognitive chaining principle (Lakoff 1984). Central members of a category are linked to other less central members by virtue of having shared or associated features. Canonically animate beings move of their own accord, which is one possible motivation for viewing the sun, moon, and stars as animate. Motors also appear to move on their own accord, and this may motivate their classification as animate. By further chaining, certain entities must be moved in fulfilling their characteristic functions. These include brooms, fans, and manioc beer strainers.

This still leaves a residue whose classification cannot be clearly motivated by semantic extension of, or experiential association with, the animate category: rocks, pineapples, and watering holes. Based on present knowledge their animate status appears to be idiosyncratic. There may have been reasons based on world view or origin beliefs for such classifications in the past, but these have apparently been lost synchronically.⁷ Many natural objects such as trees, vines, streams, and pools are said to have spirits (or are at least inhabited by spirits; Powlison 1969:48), but

this does not result in classification of all these items as animate. I do not know what might differentiate watering holes from other bodies of water.

When counting such entities or when referring to them with a demonstrative, numerals and demonstratives take animate classifiers:

(324) dá-nu-jɣy ravichɣ 'two rocks'⁸
two-CL:ANIM:SG-two rock

(325) jifu ravichɣ 'this rock'
jiy-nu
DEMO-CL:ANIM:SG rock

*jiryá ravichɣ 'this (inanimate) rock'

Thus, classifier choice for numerals and demonstratives co-occurring with such items must be governed by idiosyncratic morphosyntactic features of the head noun, not semantic ones. In line with (322) above, classifier choice here must be governed by an inflectional process. Based on the paradigmatic relationship obtaining between all NUMERAL + NOUN phrases and between all DEMONSTRATIVE + NOUN phrases, if some are syntactically dependent we assume that all must be.

As a second type of example, váturɣy 'woman who has borne children' is syntactically dual and is treated as dual for purposes of Set I and Set II clitic choice:

(326) Naadiiváay váturɣrya.
naada-jiváay váturɣy-rá
3DL-make woman:with:children-INAN
'The woman makes it'.

When the numeral root tá-guii 'one', indicating a singular entity, is

used in conjunction with váturɣy, the dual classifier must be infixed to the numeral:

- (327) tánuquii váturɣy
tá-nuuy-quií
one-CL:anim:dual-one woman:with:children
'one woman (who has borne children)'

*tííquii váturɣy⁹
one:ANIM:SG woman:with:children

Similarly, a demonstrative associated with váturɣy must have the animate dual classifier:

- (328) jííuuy váturɣy
jíy-nuuy
DEMO-CL:ANIM:DL woman:with:children
'this woman (who has borne children)'

?jííu váturɣy
DEMO:CL:ANIM:SG

If occurrence of classifiers in numerals and demonstratives were governed by derivational processes, and if anomalous combinations with head nouns were simply ruled out by semantic criteria, it would seem the animate singular classifier should be acceptable in conjunction with váturɣy since we can clearly talk about a singular váturɣy as in (327). However, the form tííquii 'one animate singular' does not occur with váturɣy. Consequently, morphosyntactic (and not just semantic) specification of the head noun must govern which classifier is used in the numeral.

It may be objected that there is some semantic duality to váturɣy 'woman who has borne children', even though it can be referred to as a singular item as in (327). Perhaps it is somewhat parallel to

the English term pair. We we can refer to pair as singular but subsequently reference the entity referred to as plural: I just bought a new pair of shoes, but where did I put them? In this English example, however, it is shoes which is understood as plural, not pair. The lexical specification of pair must be [+singular], as evidenced by verb agreement: The old pair is under the bed, the new one is in the closet. (*The old pair are under the bed). The situation with Yagua váturuy is just the reverse: semantically it may be singular in reference (or perhaps unmarked), as evidenced by the fact that it can occur with the numeral 'one'. But its lexical specification for morphosyntactic purposes is [+dual] as shown both by Set I and Set II clitic reference and by classifier choice in numerals and demonstratives.

In summary, choice of classifiers in demonstratives and numbers appears to be inflectional. The following properties contrast with [1] through [3] in Section 4.1, where I argued that classifiers in Yagua have derivational functions:

[4] In demonstratives and numbers classifiers do not cause change in word class. Even though demonstrative and numeral roots cannot stand as words without affixation of a classifier, they are still inherently demonstrative or numeral forms both before and after affixation of a classifier.

[5] Which classifier is infixal to numbers or suffixed to demonstratives is governed by the morphosyntactic class of the head noun (keeping in mind the additional generality of -ra

'CL:neutral').¹⁰ Thus, they clearly constitute an agreement phenomenon.

Property [4] by itself does not constitute evidence of an inflectional process. (Derivational morphology also need not change class.) But we would expect [4] to be true of any morphology said to be inflectional on other grounds. Property [5] argues that Yagua classifiers should be accounted for by inflectional processes. But since properties [1] and [2] (Section 4.1) argue that Yagua classifiers are derivational in nature, what should we conclude about the status of the classifier system as a whole? Following a few observations about the anaphoric function of classifiers, I will return to a more explicit evaluation of their status in Section 4.4.

4.3. Anaphora and classifiers

In addition to their inflectional and derivational functions, Yagua classifiers also serve an anaphoric function in discourse. Here I ignore the important question of when a classifier rather than some other means of making reference to a participant or entity is used. I merely attempt to substantiate that they do have an anaphoric function.

In their anaphoric role classifiers may be suffixed to (potentially derived) nominals, infixes to numbers, or suffixed to demonstratives. Example (329) illustrates the anaphoric use of a classifier suffixed to a predicate nominal in clause (c) and infixes to a numeral in clause (k). This excerpt describes a fight going on between one twin and his mother, and between the other twin and his

father over some magic flutes. The one twin fails to get the flute from his mother, though the other twin gets his father's flute. Within this excerpt 'flute' is referred to by the lexical item duuduu, the inanimate Set I clitic rā-, the inanimate Set II clitic -rā, and the classifier -duu 'CL:hollow:tube'. The classifier -duu, the nouns dúú 'bone' and duuduu 'flute', and the verb dúú 'blow, kill (with a blowgun)' are etymologically related.

- (329) a. Naadaniy juváyu, sųunoodáta.
 naada-niy juváy-yü sa-junooda-tá
 3DL-MALF fight-CORO 3SG-mother-INST
 'They (a twin and his mother) fight each other
 with his (the twin's) mother'.
- b. "Née yąą juváarya radyuuduu.
 yi-ą juváay-rā ray-duuduu
 NEG 2SG-IRR touch-INAN 1SG-flute
 (The mother says:) "Don't touch my flute!"
- c. Vanuquiduu várirya."
 vanuquii-duu váriy-rā
 hot-CL:tube then-INAN
 It's hot!"
- d. Née vánay júrighara.
 júriy-sara
 NEG possible grab-O:NOM:INAN
 It can't be grabbed.
- e. Sa-niy dúú.
 3SG-MALF blow
 He (a twin) blows (to cool it off).
- f. Rápiisiimyya sajomotuviimu.
 rá-piisiiy-maa sa-jomotu-viimu
 INAN-burn-PERF 3SG-hand-inside
 It (the flute) burns in his hand.
- g. Rámutimyyú née vánay júrighara
 rámutiy-múy júriy-sara
 therefore-NEG NEG possible grab-O:NOM:INAN
 Therefore it can't be grabbed.

- h. Tíiy. Néé vānāy.
 (sound word) NEG possible
Tíiy! It can't be!
- i. Rooyiiiiin, sūnooda rotýechírya.
 sa-jūnooda rotýey-siy-rā
 (sound word) 3SG-mother grab-AB-INAN
Rooyiiiiin! His mother grabs it running away.
- j. Néé sarúpaānūtyée jííta jíífu dárya,
 sa-rúpaā-nūty-tée jíy-mu day-rā
 NEG 3SG-fail-IMPF-EMPH JIITA DEMO-CL:ANIM:SG DAY-INAN
 This one (the other twin) did not fail to get it
 (the other flute),
- nijyaāmivájū, sajáāmyusiy.
 nijyaāmi-vájū sa-jāāy-mu-siy
 people-comparative 3SG-father-LOC-AB
 (the one twin who was) more like a person, from his
 father.
- k. "Tííjyiiiiiiin, táájū tá-duu-quii-dee-tée
 (sound word) why one-CL:tube-one-DIM-EMPH
 vuryeeryityée?"
 vurya-jiriy-tée
 1PLINC-grab-EMPH
 (The twins say:) "Tííjyiiiiin, why did we only get
 one (flute)?" (MLZ275-284)

As (329k) shows, inflected numerals need not co-occur with a head noun in a given discourse context. Do we conclude then that classifier choice on numerals is not constrained by inflectional processes after all? Within most traditional structural analyses, (329k) would be considered a case of 'noun deletion' since recovery of the head noun is clearly possible based on context. My own hypothesis is that we must allow 'agreement' between head noun and choice of classifiers to operate across more than one clause or noun phrase. Classifier choice in numerals and demonstratives is constrained or dictated by the morphosyntactic feature specification of the referring noun where it occurs elsewhere in the context. There

is a general dictum in Yagua discourse that use of full noun phrases should be avoided as much as possible (cf. T. Payne 1985). Classifiers (other than the neutral -ra) refer to a few rather specific features of the understood 'head' referent. When there is no other entity in the context which also shares those features, a classifier may be sufficient to identify the referent unambiguously. It is not a matter of 'deletion' so much as one of not inserting a noun.

4.4. Theoretical status of Yagua classifiers

The ambiguous derivational - inflectional status of Yagua classifiers pointed out at the end of Section 4.2 suggests that the time-honored distinction between inflection and derivation may not be as clear-cut as one might like. In discussing the Extended Word-and-Paradigm (EWP) model of morphology, S. Anderson (1982:585) rightly notes that the distinction between inflection and derivation has been 'one of the classic chestnuts of traditional grammar'. He nevertheless argues that a theory dependent, but clear differentiation between the two can be maintained. The EWP model is an innovative extension of the classical Greek and Roman approach to morphology (cf. Matthews 1974:59-75) which is demonstrably more satisfactory than a position class approach for many languages. This is principally because the EWP framework views morphemes as rules or RELATIONS, rather than as particular meanings inherent to phonological chunks. I will not attempt to argue for or against the superiority of this approach here, but will explore how the Yagua

classifier system might be handled within this framework. I will conclude that there is potentially significant convergence between Anderson's view of the inflectional versus derivational contrast, and a 'prototype' view of inflectional versus derivational categories or functions. To my mind, however, the latter provides a more satisfying understanding of the nature of Yagua classifiers, and may lead us to a better understanding of morphological types in general.

Within the EWP model, inflectional morphology is defined as that which is 'assigned to words by processes which operate with essential reference to structure beyond the word level' (588; viz. processes which are sensitive to something elsewhere in the syntactic structure). Inflection thus includes such classically inflectional morphology as case and agreement. Productivity, although commonly characteristic of inflectional processes, is not a defining property. Anderson notes that inflectional processes can sometimes be very restricted, and that, alternatively, derivational processes can be highly productive. Derivational morphology has to do with processes which simply provide new lexical items on the basis of the (word-)internal structure of their base (588). Derivational processes are carried out in the lexicon. Clearly included are processes which change word-class membership, though such a function is only a sufficient criterion and not a necessary one for derivational status. Anderson further notes that a given category such as 'diminutive' may be inflectional in one language but derivational in another, depending on how well the category is integrated into the syntax of

each language (589). Thus, a 'universal' listing of inflectional versus derivational categories will not suffice.

According to the theory internal criteria given by Anderson, observation [5] in Section 4.2 argues that Yagua classifiers should be accounted for by inflectional processes. However, [1] and [2] in Section 4.1 argue that they are derivational in nature. There is a corroborating argument for such a split. In general, derivational processes should not be limited just to deriving forms whose category specification necessarily co-varies with, or is identical to, the category of the base. The two should be logically independent. Inflectional processes are just the opposite: the category of the output is necessarily identical to the category of the input.¹¹ When numerals and demonstrative roots are affixed with classifiers, both the input and the output are numerals and/or demonstratives:

(330) [[DEMONSTRATIVE ROOT] + CL] => DEMONSTRATIVE
 [[NUMBER] + CL] => NUMBER

However, when verbs, modifying roots, or inherently nominal roots are suffixed with classifiers, the output is not identical to the category of the input, but is a function of the process associated with occurrence of the classifier. The output is always a noun:

(331) [[VERB] + CL] => NOUN
 [[MODIFYING ROOT] + CL] => NOUN
 [[NOUN] + CL] => NOUN

It might be argued that numbers and demonstratives are really types of nouns themselves. If so, it is still the case that the syntactic subcategory of these 'nouns' is different from the syntactic

subcategory of nouns derived by affixation of classifiers to roots as in (331). Numerals and demonstratives precede the head noun as the basic order (demonstratives can only precede). When classifiers function as in (331) to derive nouns which may then function as descriptive modifiers (Section 4.2), such descriptive modifiers follow their head nouns as the basic order. Additionally, derived nouns as in (331) can stand as head nouns themselves in subject or object roles, as predicate nominals, and as objects of postpositions. It is not clear that numbers and demonstratives share these syntactic distributional properties.

The ambiguous status of classifiers is not limited to Yagua. It may be a general characteristic of classifier systems in the western Amazon, as exemplified in Bora (purportedly Huitotoan), Tucanoan languages, PreAndine Arawakan languages, and Chayahuita (Cahuapanan) (Doris Payne 1984b). I do not control the intricacies of these other languages well enough, and sufficiently detailed descriptions are unavailable, to argue unequivocally for inflectional functions of classifiers. But classifiers in these languages are used in numerals and they have anaphoric functions in discourse. In Bora and Tucanoan languages they also occur in demonstratives. These discourse/syntactic properties suggest possible inflectional functions. But in all the languages listed, classifiers undeniably reflect derivational processes as well.¹²

Encoding of both inflectional and derivational functions is also characteristic of Bantu and perhaps other Niger-Kordofanian noun class morphology (Mufwene 1980; Kasangati Kinyalolo, personal

communication). The class prefixes are commonly considered inflectional as they cross-reference or agree with class of the subject and/or object on the verb. (In at least some languages, e.g. Swahili, referencing of the object depends partially on definiteness; Kasangati Kinyalolo, personal communication.) Choice of prefix cannot be made just on semantic grounds, as there is a great deal of semantic arbitrariness in class assignment of nouns (Mufwene 1980:246). However, classifiers also have prototypical derivational functions, deriving nouns from adjectives, verbs, and other nouns. Mufwene gives numerous examples, of which the following are representative (Mufwene 1980:248-9):

- | | | | |
|-------|-------------|---------------------|-----------|
| (332) | -kúbwa | 'big' | (Swahali) |
| | u-kúbwa | 'size' | |
| (333) | ó-tyen | 'to talk' | (Yansi) |
| | é-tyen | 'manner of talking' | |
| (334) | o/ba-bakála | 'man' | (Kikongo) |
| | ki-bakála | 'maleness' | |

Mufwene concludes (254) that the boundary between derivation and inflection appears to be particularly 'fluid' in the case of Bantu class prefixes.¹³

In the following sections I discuss three possible analyses of the Yagua data relative to the EWP model, and then consider the problem from within a prototype framework.

4.4.1. Analysis I

We could simply conclude that there is no empirical distinction between inflection and derivation after all, and that the theoretical attempt to differentiate them is misguided. This, however, flies in the face of all traditional wisdom on the subject, and ignores the differential effect of classifiers in (330) versus (331), and the differences between properties [1] and [2], versus [5] (Sections 4.1 and 4.2).

4.4.2. Analysis II

Second, we could conclude that there are two identical sets of some 40 formatives each. One set is the result of inflectional processes which spell out the forms of the classifiers after lexical insertion has occurred, as follows. Given a syntactic structure terminating in a lexical node for a demonstrative or number, agreement features in the morphosyntactic representation of the demonstrative or number are governed by the class of the head noun occurring within the noun phrase. Rules of the following form then spell out the phonological forms of classifiers:

(335) $\left[\begin{array}{l} + \text{ demonstrative} \\ + \text{ animate} \\ + \text{ plural} \end{array} \right]$

/X/ => /X + vay/

(336) $\left[\begin{array}{l} + \text{ number} \\ + \text{ animate} \\ + \text{ plural} \end{array} \right]$

/X₁ Y₂/ => 1 /vay/ 2
1 2

The second set of classifier formatives is the result of derivational processes which also spell out phonological forms, only within the lexicon. To illustrate how such derivation occurs, consider the lexical entry for machoq 'remain' which is not inherently nominal.

(337) LEXICAL REPRESENTATION:

/mačq̣q/ [+remain] VERB

There is a productive derivational process which takes such entries and adds other formatives plus associated feature specifications. (Alternatively, we might conceive of (337) and (338) as just being related within the lexicon):

(338) LEXICAL REPRESENTATION:

/mačq̣qvay/ 'remain' [+animate, +plural] NOUN

Within the EWP framework, the distinction between /vay/ 'animate plural' in (335) and (336) versus /vay/ in (338) is not based on anything inherent to the phonological chunks themselves. Rather, the distinction resides in the SOURCE of the formatives, depending on whether it is due to relationships obtaining in the syntactic structure, or due to rules/relationships obtaining within the lexicon.

There is a potential difficulty with this solution. When lexical items such as machoqvay 'remaining ones (animate)' or juváavvey 'makers (animate)' are actually inserted into morphosyntactic representations, the lexical features [+animate] and [+plural] are

still associated with them. What, then, should prevent application of inflectional rules from spelling out another instance of /vay/, producing forms like *machooqvavyey and *juvavyevyey? S. Anderson (1985; also S. Anderson 1982) argues that there are disjunctive ordering principles motivated by phenomena in numerous languages which rule out these sorts of problems. In particular, there is a disjunctive ordering principle governing relations between stems and rules, as follows:¹⁴

(339) Stems that are lexically characterized for some set of features block the operation of rules specifying a (non-null) subset of those same features.

Thus, oxen is marked as [+plural] in the English lexicon, and inflectional processes are blocked from adding the productive plural -s which would produce *oxens.

Although this second solution 'works', it is somewhat disturbing to recognize the huge amount of shared semantics and homophony between the two sets of rules. For example, the inflectional rule producing the classifier formative -see and the derivational rule or relation accounting for the classifier formative -see both reflect the semantic features [-animate, +short:stick]. Such semantic and phonological overlap is true for every inflectional-derivational pair. This is not as economical a solution as one might wish for.

4.4.3. Analysis III

This brings us to a third possible analysis. We could conclude that classifiers can be the result of three different sorts of processes. There is an inflectional rule which specifies essentially semantic agreement features, a derivational rule which also specifies semantic features, and a third 'spell-out' rule which merely gives phonological form to semantic features.

Inflectional rules are those which in essence copy agreement features such as [+animate] and [+plural] onto certain terminal lexical nodes, depending on the morphosyntactic categorization of elements elsewhere in the syntactic structure. Unlike the inflectional rules in (335) and (336) above, no phonological form is specified. Inflectional rules simply produce morphosyntactic representations such as:

$$(340) \quad \left[\begin{array}{l} + \text{ demonstrative} \\ + \text{ animate} \\ + \text{ plural} \end{array} \right] \quad \left[\begin{array}{l} + \text{ number} \\ + \text{ animate} \\ + \text{ plural} \end{array} \right]$$

Within the lexicon there are productive derivational processes which take entries like (337) above, and add feature specifications as in (341), resulting in new lexical entries. (Alternatively we might conceive of this just as a lexical relation obtaining between /mačq̣q̣/ and /mačq̣q̣/ + [+animate, +plural] within the lexicon.)

(341) LEXICAL REPRESENTATION:

/mačq̣q̣/	[+ animate]
	[+ plural]
VERB	NOUN

Within the lexicon no phonological form is actually given to the features [+animate, +plural]. The phonological form associated with 'remain' is specified as /mačq̣q̣/.

Specification of the phonological form of (341) occurs as follows. The EWP model allows for potential redundancy between lexical entries and morphosyntactic representations into which lexical entries are inserted. Thus, we might have a morphosyntactic representation calling for insertion of a descriptive modifier as follows, where choice of modifier is selectionally restricted by features of the head noun within the larger syntactic phrase. That is, the features are not 'copied' from the class of the head noun, which would be equivalent to saying that the features were inflectionally dictated.

(342) MORPHOSYNTACTIC REPRESENTATION:

[+ substantive]
[<+ animate>]
[<+ plural>]
[<+ neutral>]

The morphosyntactic representation in (342) allows for lexical insertion of a nominal with either [+neutral] or [+animate, +plural] specification. One advantage of this approach is that it also allows a nominal with no classifier form to be inserted if the nominal is not positively specified for features conflicting with [+animate] and

[+plural] - i.e. if it is [+neutral] with respect to the more specific features. This is clearly what we want to allow, given phrases like (318) above. When lexical insertion occurs in a structure containing (342), the lexical entry in (341) may be selected.

Only one general spell-out rule like (343) is then needed to account for all occurrences of /vay/:

(343) [+ animate]
 [+ plural]

 /X/ => /X vay/

Rule (343) applies after lexical insertion has occurred, giving phonological form to both (340) and (341). What is inflectional versus derivational in this analysis is the source of the features [+animate] and [+plural]. In the case of numerals and demonstratives they are 'copied' from the head noun. In the case of (341), they are specified in the lexicon. But application of only one rule, which is neither strictly inflectional nor derivational, gives both sources phonological realization. Since there is only one type of rule specifying phonological shape, in a sense there is only one set of classifiers. We do not need to posit 40 inflectional and 40 derivational classifiers.

A potential objection to this analysis is that it would allow incompletely specified representations in the lexicon, perhaps harking back to the problems with incompletely specified 'archiphonemes'. However, this analysis does not posit incompletely specified phonemes in the lexicon. Rather, no phonemes are associated

at all with the features [+animate, +plural].¹⁵ Nevertheless, it seems to me that there is a serious objection to this analysis, at least for Yagua. There are numerous examples where it is clear that speakers conceive of derived forms with classifiers as fully standard lexical items. For example, jásuuchee 'manioc' is one of the most basic lexical items in the culture. Yet etymologically this comes from jásuuy 'to peel' plus the classifier for short stick-like objects -see. Similarly, juváavyey 'creators, workers', from juváay 'to make' plus the classifier for animate plurals -vay, occurs as a fully standard lexical item in expressions such as jumufu juváavyey 'canoe makers'. There is no reason to suppose that the complete phonological form of such items is not part of the speaker's lexical knowledge.

In sum, within the EWP framework as it stands, the second solution given above may be the best analysis after all. In the following section I will look at inflection versus derivation from the framework of 'prototypes' as developed by Rosch (1975, 1978) and others. I believe this perspective gives a fuller understanding of the inflectional - derivational contrast, and suggests a further refinement of Analysis III.

4.4.4. Inflection versus derivation within a prototype framework

Canonical inflectional morphology is commonly thought of as having the following (not necessarily independent) properties:

- (344) I-1. Correlates with something elsewhere in the syntactic structure, indicating something about syntactic relations
I-2. Is productive
I-3. Has predictable (often bleached) meaning
I-4. Participates in a paradigm of oppositions
I-5. Does not change class
I-6. Does not result in new lexical items
I-7. Occurs towards edges of words

Canonical derivational morphology is commonly thought of as having the following (not necessarily independent) properties:

- (345) D-1. Is not correlated with something elsewhere in the syntactic structure
D-2. Is typically non-productive
D-3. Has non-predictable meaning
D-4. Does not participate in a paradigm of oppositions
D-5. Results in (substantial) change in meaning
D-6. Results in new lexical items
D-7. Changes major class
D-8. Occurs towards root

But as S. Anderson (1982) rightly points out, there are few heuristic tests which allow us to unambiguously identify any given formative as inflectional or derivational. We have already briefly alluded to the inadequacy of the productivity criterion for identifying inflectional morphology: derivational formatives may also be highly productive and meaning of the resultant word form may be completely predictable. It is not clear that derivational morphology always results in substantial changes in meaning either. Hopper and Thompson (1984:745) discuss morphology whose primary purpose is to signal that a verbal root has been converted into a nominal form, as in the pairs: propose proposal, create creation, sell selling, excite excitement.¹⁶ Further, it is not true that derivational morphology always results in changes in major class. Chafe (1970:128) discusses the difference between The soup is heating and Linda is heating the

soup as residing in a process which derives a process action root from a process root via addition of a causative feature. But in both cases is heating is clearly a verb. Finally, it is not clear that derivational morphology is always closer to the root than inflectional morphology. Sekani, an Athabaskan language, has verb prefix positions ordered as follows (Hargus 1984):

postposition - adverbial - N/V stem - distributive -
customary/habitual - reversative - inceptive - direct object -
subject - thematic - aspectual - derivational - conjugation - mode -
voice - verb:stem

The direct object and subject prefixes have classic inflectional functions, agreeing with subject and object arguments (Sharon Hargus, personal communication). The N/V stem is essentially an incorporated root (perhaps somewhat analogous to incorporation of classifiers in other languages). If we are forced to classify it as either inflectional or derivational, it can only be thought of as derivational (cf. Mithun 1984). In this case, then, it does not appear that all derivational morphology occurs closer to the verb stem than does all inflectional morphology. In sum, we cannot identify formatives as derivational (or inflectional) on the basis of a set of properties which all and only such formatives have in common. Formatives can perhaps be identified as inflectional if and only if their occurrence is dependent on something elsewhere in the syntactic structure, but this presumes theory-specific,

theory-internal arguments (as Anderson has noted). For example, the analyses given in Sections 4.4.2 and 4.4.3 assume a particular view of what a morpho-syntactic representation is like, a particular view of the lexicon, lexical insertion rules, the nature of agreement rules, and the relationships between these.

In what follows I suggest that the cognitive framework of categoriality and prototypicality developed by Rosch and others (cf. Rosch 1975, 1978; Berlin and Kay 1969) is insightful in understanding the nature of the relationship between inflectional and derivational functions. An additional insight comes from the essentially Saussurean distinction between phenomena or function to be encoded, and the encoding device. Together these principles provide a framework for better understanding the status of Yagua classifiers, and also suggest a revision in the more formal modeling of inflection and derivation within the EWP framework.

Experimental research shows that people judge some tokens to be more central members, or better exemplars, of particular type categories than other tokens (cf. Rosch 1978:36). More central or prototypical members of a category appear to be those members which have more attributes in common with other members of the category, and fewer attributes in common with members of contrasting categories; prototypical members 'most reflect the redundancy structure of the category as a whole' (Rosch 1978:37). As far as human perception is concerned, type categories cannot be defined with reference to their 'edges' because there is no set of properties which all and only those tokens of a given category share in common,

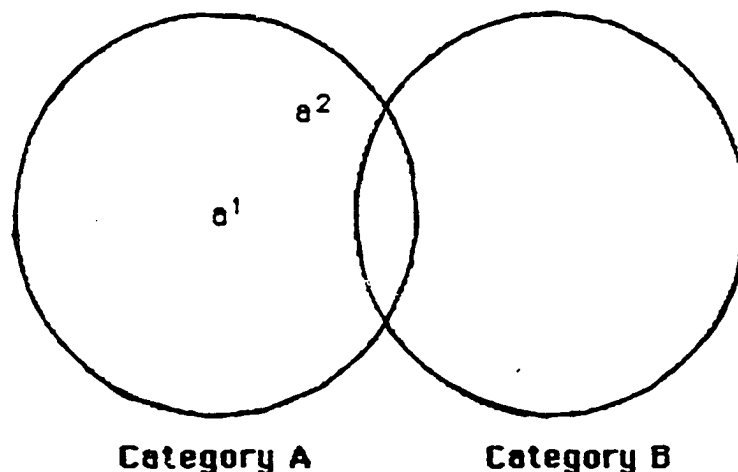
as opposed to all tokens which belong to other categories. Cognitive categories must be defined in terms of their centers.

Nevertheless, some features may be more central (though perhaps not necessarily determinative by themselves) of membership in certain categories. For example, it is hard for me to envision calling something a member of the category CHAIR if it does not have a seat. Still, just having a seat is not in itself determinative of membership in the CHAIR category. I would not consider a bicycle to be a token of the category CHAIR. The number of legs that something has is a less crucial feature for me as to whether something does or doesn't belong to the CHAIR category - my daughter has something I call a 'chair' which has two essentially solid sides rather than four legs. Number of legs does contribute to whether or not something is considered a 'typical' chair, however. My daughter's thing is not a typical chair (for a variety of reasons including the number of legs).

Experimental research also shows that human perception imposes categorical divisions on phenomena which may in themselves be objectively continuous (Rosch 1978:35). In language, such impositions must correspond partly to the fact that encoding devices (ED) are a yes/no phenomenon: a particular formative is used, or it is not; a passive construction is used, or it is not. And so, determinations must be made as to whether the phenomenon to be encoded (EP) belongs to the category (normally) associated with a particular ED. These determinations may be based on how closely a given EP token corresponds to what is perceived as the prototype of a given EP type

category, rather than on whether the EP token falls on one side or another of an arbitrary division between type categories. The situation is represented diagrammatically in (346). Token a^1 is judged as a better instance of the type category A, than is token a^2 . However, a^2 is judged as a better instance of the type category A, than of the type category B. Though there is no objective point at which tokens of category A may be fundamentally different in kind from tokens of category B, the speaker may clearly differentiate the two categories.

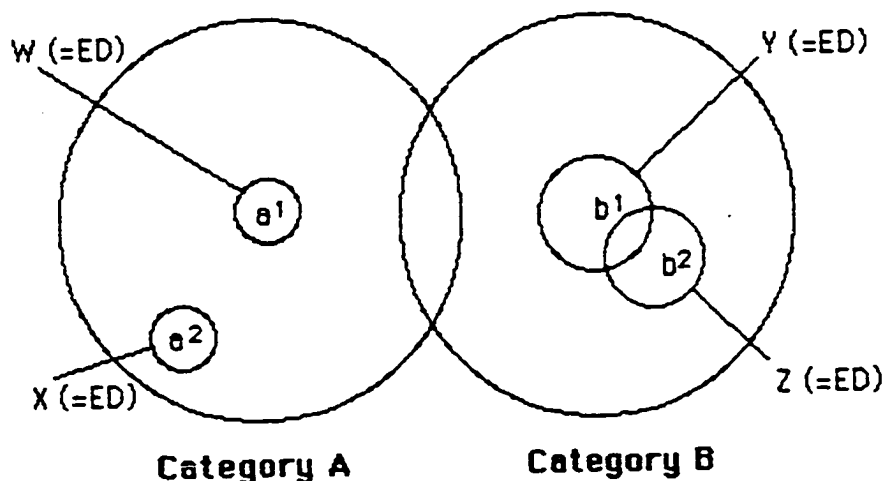
(346)



Hopper and Thompson (1984) argue that prototypicality in linguistic categories depends not only on features inherent to (or strongly associated with) ED's themselves, but on the particular FUNCTION to which a token ED may be put on a particular occasion. For instance, 'an apparently prototypical noun such as "fox" is not in fact [a prototypical noun] in all instances of its use' (708). There is a distinction between more or less prototypical functions or groupings of functions (EP's) to be achieved, which define the centers of (certain) categories or types, versus more or less prototypical instantiations of those categories by particular token ED's. To use Hopper and Thompson's example, the prototypical function associated with prototypical nouns is introduction of manipulable entities into discourse. Any one token nominal form (which is an ED) may fulfill this function (an EP) to a greater or lesser degree. In what follows I will use a diagram of the sort given in (347) to

explicate these types of relations. What is inside the large circles represents phenomena to be encoded (EP's). These may be objectively continuous. In ensuing discussion EP's are generally grammatical functions of one sort or another (or perhaps functional domains in the sense of Givón 1979; 1984b). What is outside the large circles represents devices which encode those functions (ED's). For our purposes we may assume that linguistic ED's are essentially discrete. Straight lines crossing the large circles represent a mapping of ED's onto some subset of the EP field.¹⁷

(347)



Returning now to the inflectional - derivational issue, as a native English speaker (thoroughly contaminated by linguistic non-naivete, however), my intuitions are that the function of /z/ in goes is fundamentally different in kind from the function of /hUd/ in childhood, /mɛnt/ in government, or /In/ in inborn. Choice between /z/ and its absence depends on things elsewhere in a given clause, viz. number and person of the subject argument and tense specification. Choice of /hUd/, /mɛnt/, or /In/ does not depend on syntactic relations obtaining between elements of a clause or phrase. Based on such contrasts, traditional grammar has recognized that there are prototypical inflectional functions, and prototypical derivational functions. This type of distinction has motivated the sharp categorical distinction between inflection and derivation in traditional treatments, as represented by the diagram in (348).

(348)

Indicates syntactic relations
Productive
Does not change class
Towards edges of words
Predictable meaning
etc.

Inflection

Change in major class category
Substantial change in meaning
Idiosyncratic meaning relations
Towards root
etc.

Derivation

Traditional grammar has recognized that some formatives correspond to, or encode, solely derivational functions. These have been classically referred to as 'derivational morphemes'. The best cases of derivational morphology exhibit all or most of the derivational features listed in (345) and (348). For example the /In/ morpheme found in inborn does not have a consistent meaning. In inborn it means something like 'possessing at (the time of birth)' or 'inside the organism at the time of birth'. In incise it means 'in an inward direction' rather than just 'inside'. It can derive a noun from a verb as in income. It cannot occur with all roots, its occurrence is not dependent on something elsewhere in the syntactic structure, and it occurs contiguous to the root or stem. Morphemes which do not have all the derivational features, but which correspond solely to derivational features, can still be good cases of derivation. This is the status of /hUd/ in childhood which does not

change major class features (both child and childhood are nouns), but which does substantially change meaning and which is not productive.

Other formatives correspond to, or encode, solely inflectional functions. Such formatives have been classically referred to as 'inflectional morphemes'. The best cases of inflectional formatives again have all the inflectional features listed in (344) and (348). This, for example, is the status of /z/ 'third singular present tense' in the alternation between English goes and go.

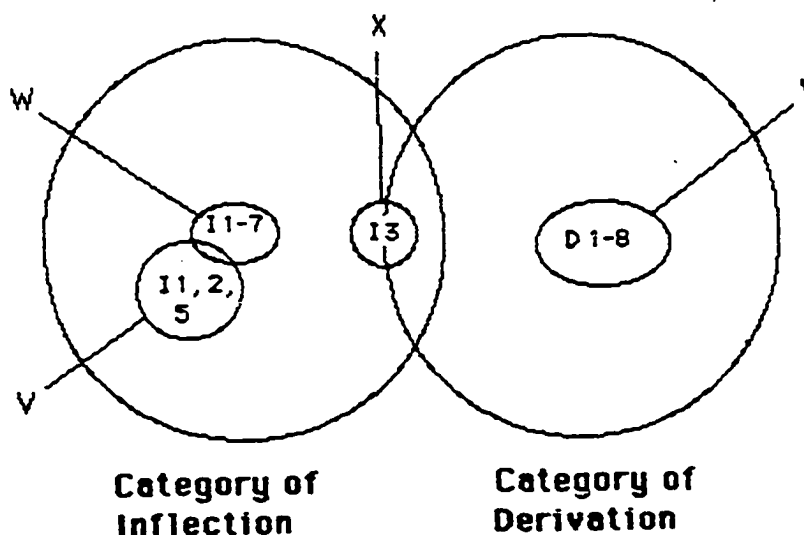
Traditional grammar has recognized these two strong prototypes, and assumed that inflectional and derivational categories are distinct. I believe there is a valid reason for maintaining that there are (at least) two categories. (Whether or not they are completely distinct is another issue.) When it comes to adequately describing the grammar of a language, certain morphological facts must be stipulated in terms of a dependency obtaining between two things present in the syntactic structure. In contrast, other morphological facts do not exhibit such dependency relations - anything which makes semantic sense in terms of some perceived universe can be pulled out of the mental lexicon and employed in a particular context.

This leads to one thing which traditional grammar has not explicitly recognized, which accounts for deviations from the prototypes. Certain of the features in (344) and (345) above are more central or determinative of whether a particular formative is a member of the inflectional or of the derivational category. S. Anderson (1982) is an exception in implicitly recognizing this. In

line with Anderson (1982), the most central feature of the inflectional category is probably encoding of syntactic relationships, while a highly central feature of the derivational category may be changing of major syntactic category (e.g. noun to verb). Another equally (if not more) central feature of the derivational category is the negative value of the central inflectional feature. That is, prototypically derivational functions do not encode syntactic relationships. Other features listed in (344) and (345) may tend to be characteristic of inflectional or derivational functions, but at the same time may be less central features of their respective categories. As Anderson has pointed out, a non-central feature characteristic of inflection, such as productivity, may in a particular case turn out to be associated with a derivational function.

The central features themselves do not constitute the prototypes of inflectional versus derivational categories. Rather groupings of features (preferably including the central features) encoded by formatives constitute more or less prototypical instantiations of a category. Thus, a given ED may encode a strongly prototypical bundle of inflectional (or derivational) features, while some other ED may encode a less prototypical bundle of features but still be considered a member of the inflectional (or derivational) category. A better characterization of the relationship between inflectional and derivational categories is represented by the diagram in (349).

(349)



As one example of non-prototypical derivational morphology, much of Yagua verbal morphology probably falls within the derivational spectrum because choice and occurrence of the forms is not syntactically dictated (Chapter 5). But some formatives have a high degree of productivity, are predictable in meaning, do not change major class category, and even evidence variable ordering possibilities with associated differences in of semantic scope and the arguments of which they are predicated. The last feature would be characteristic of syntactically distinct elements. The formatives in question thus do not appear to be prototypically derivational. I would not suggest that these formatives are therefore necessarily closer to an inflectional type. They are just not prototypically derivational.

There is a second type of deviation from the prototypes. Some formatives may not exclusively encode either inflectional or

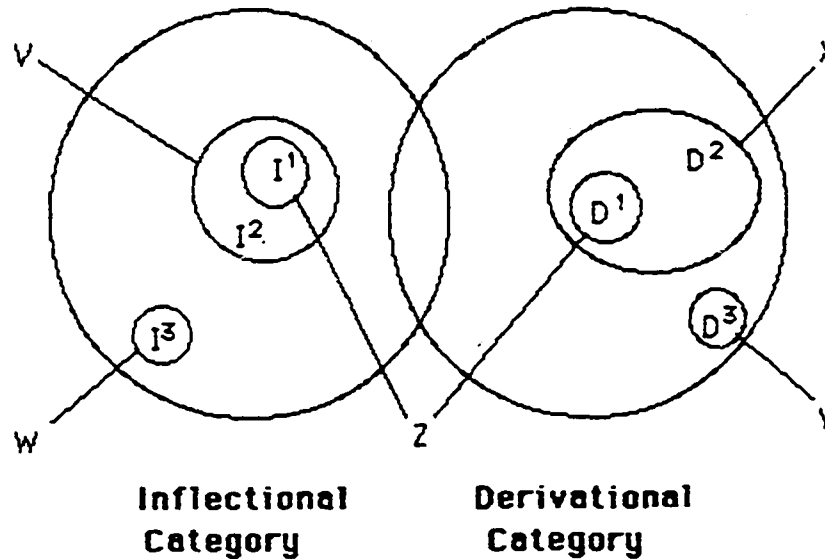
derivational functions, but may encode both, though perhaps in differing contexts. This group of deviations argues that inflectional versus derivational status is not a priori a property inherent to a given phonological formative (or in EWP terms, a property inherent to particular 'spell out' rules such as (335) and (336) above). Rather, inflectional versus derivational status may be more or less strongly associated with a given formative, depending on how closely and exclusively that formative instantiates the function typical of the center of a given category. If X always and only encodes highly derivational functions, then we may informally say that 'X is a derivational morpheme' or that 'X is the result of a derivational rule'. But there is no a priori reason why such an exclusive relationship need be the case for all formatives.

Yagua classifiers are a case in point. In traditional approaches we are in a quandry as to whether we have 'inflectional morphemes' or 'derivational morphemes', or homophonous sets of each. But once we recognize that there is a difference between function to be encoded, and the encoding devices which instantiate that function, the quandry can be resolved. In a particular context the formative -vay, for example, may encode a derivational function, and even a prototypically derivational function, while in another context it may encode an inflectional function. What is constant about -vay is that it always encodes the features [+animate, +plural], regardless of whether those features are correlated with, or used to instantiate, an inflectional function or a derivational one. From the speaker's point of view, there may be just one set of classifiers (types of

ED's) which are inherently neutral with regard to inflectional versus derivational status. But that does not mean that the functions to be encoded (EP's) need be indeterminate in category.

The more universal relationship between encoding devices and functions to be encoded is thus as diagrammed in (350). ED's such as V and W can be informally thought of as 'inflectional', and ED's such as X and Y as 'derivational'. But ED's such as Z are not identified exclusively with either function. They thus force upon us the realization that inflection and derivation are functions to be encoded, and are not something inherent to ED's themselves.

(350)



Whether we wish to think of V through Z as phonological formatives associated with semantic features complexes (i.e. as something akin to Sausseurian signs), or as 'spell-out' rules such as (343), is not at issue here. (But as S. Anderson 1982 has amply argued, the latter is more adequate cross-linguistically.)

What I am suggesting is more in line with solution III above, rather than solution II. For the Yagua classifiers there is only one set of relations between semantic features and phonological forms, and we may model this by rules such as (343). But these form-meaning relations serve more than one function.¹⁸ The difficulty with analysis III as given above above is that rule (343) is said to reflect a relation which obtains only after lexical insertion occurs. If we allow (343) to apply whenever the structural description is

met, whether that be in the lexicon or following lexical insertion, the objections to Analysis III are resolved.¹⁹

The state of affairs represented in (350) is necessary and even desired if we want to accurately account for historical change, and for alternation between inflectional and derivational 'status' at different points of history. Matthews (1974:53) argues, for example, that Indo-European *-sk- 'inchoative' was probably inflectional (in my terms, exclusively encoded an inflectional function), in Latin -sc- has become derivational (i.e. exclusively encodes a derivational function), and in modern Italian -sc- has become part of the productive inflectional paradigm again. It is much more likely that such reanalyses will be made either if a formative characteristically encodes a grouping of functions which is not prototypical of the category, rather than one in the center of a category, or if a formative is not exclusively identified with one or the other categories.

In summary, it is not Yagua classifiers themselves which are inflectional versus derivational; it is the functions which they encode. At present, they encode both types, though in different contexts. From the speaker's viewpoint, there is still only one set of classifier formatives, which as one of their encoding relations shows agreement between demonstratives or numerals and their head nouns. The sharp distinction between inflectional and derivational categories as argued for by Anderson is an idealization made by the linguist. In most cases this may reflect a cognitively accurate distinction: speakers do make categorical distinctions between

prototypical inflectional and derivational functions. But there are deviations from the prototypes as well.

NOTES TO CHAPTER 4

¹ Other classes of quasi-lexical items include postpositions, strictly adverbial elements, some modals, and perhaps others.

² The dual suffix -juy on proper names, as in Celina-juy, recognizes the special status of women who have borne children.

³ A classifier may be preferred on míi 'dirtytness' in (312) (though I am not absolutely certain there is a preference) because of phonological factors. Míi is otherwise an unusual one-syllable word.

⁴ Vánu probably stems etymologically from whatever the animate singular classifier -nu comes from, plus a derivational prefix va-. Va- is the only prefixal formative that I know of in the language (other than Set I clitics). Prefixation of va- is not productive. It shows up on a number of abstract nouns and adverbial items such as vátu 'adult female' (-tu is a feminine ending but not a classifier per se), vánuqui 'heat', vásunu 'blue', vánuudiy 'fast (rapid)', and vánuyada 'strength'.

⁵ Synchronic idiosyncracies may also creep in via loss of the world view and cosmology that formerly motivated particular classifications, particularly as cultures come into contact with one another.

⁶ I thank Steve Anderson for discussing with me general characteristics of the type of evidence which would argue strongly for inflectional status.

⁷ In Asheninca, a PreAndine Maipuran Arawakan language spoken in southern Peru, pineapples are considered animate because they originated from a mythologically animate being (Judy Payne, personal communication). We have not found a similar explanation motivating animate categorization of pineapples in Yagua.

⁸ The 'animate dual' classifier -nuuy is not used when referring to 'two rocks' because as a countable item, ravichu 'rock' is not lexically specified for [+dual] (or [+plural]). Its lexical number must be either not specified, or must be [+singular].

⁹ Tíiquii is etymologically derived from ta 'some (indefinite)' + i 'animate singular nominalizer' + quii. I do not know by what historical accident it exceptionally takes the animate singular nominalizer i (which is not a classifier) rather than the animate singular classifier nu.

¹⁰ It is not true that -ra can be substituted for all cases of -nu (or any other classifier) without change in meaning. Compare, for example:

- a. Jääryiy dápuufu-níí. b. Jääryiy dápuurya-níí
 very hunter-3SG very hunter-3SG
 'He (is one who) hunts a lot'. 'He is a good hunter'.

We term -ra 'neutral' in the sense that it may occur with animates or inanimates, and in some discourse contexts is 'preferred' over more specific inanimate classifiers. The exact circumstances under which it is 'preferred' merit further investigation.

¹¹ Maysken (1981) suggests that 'word formation rules' must not be constrained such that the category of their output is a function of the category of their input. He does not discuss inflection versus derivation per se in these terms, however.

¹² Arabela (Zaparoan) classifiers clearly have derivational functions, and probably function anaphorically in discourse. They do not occur on numerals or demonstratives, however.

¹³ This phenomena may be not limited just to classifiers. Ed Keenan (personal communication) has observed that the Hebrew definite marker ha- appears to encode both inflectional and derivational functions.

¹⁴ Anderson (1985) gives two additional disjunctive ordering principles besides the one quoted here.

¹⁵ There are clear cases where derivational features receive no phonological realization separate from the root. For example, 'to worry (about)' may receive transitivizing derivational features, resulting in the sense 'to worry (someone)'. Yet there is no particular morphology associated with the feature [+ transitive]. In the Yagua classifier case, however, the classifier features are ultimately associated with phonological material distinct from the root. In the analysis currently under discussion, this association is just not part of the lexical specification of the word.

¹⁶ One might say that the 'grammatical meaning' evidenced by such pairs is altered. There is also greater focus on a (resultant) state in the nominalizations than in the verbs.

¹⁷ A three dimensional model in which ED's are in a different plane than EP's would be more accurate since ED's and EP's are fundamentally different in kind. One could view the straight lines corssing the large circles as mapping from a third ED plane on to the flat EP plane. In actual fact, the EP space itself should be multidimensional since it represents more than two parameters. The parameters in question here are reflected in the characteristics listed in (344) and (345).

The ED-EP mapping is reminiscent of the Saussurean sign. The difference is that the Saussurean sign is just one type of EP-ED

mapping, where EP is some (set of) semantic feature(s), and ED is typically a phonological string less than or equal to a word form. Anttila (1972:14-18; based on Charles Peirce) includes diagrammatic icons, characteristic of syntax, as a type of sign.

18 Not every case of phonological homophony should be taken as encoding dual functions. For example, we do not say that the English possessive -s and the English plural -s are the 'same' morphological formative, precisely because the semantic features associated with the two are so distinct. In the Western Amazonian and Bantu noun class(ification) systems, however, the sets of semantic features associated with the inflectional processes, versus those associated with the derivational processes, appear to be identical. Thus, in some sense we want to say that there really is only one formative -vay 'animate:plural', and only one formative -see 'short:stick', etc.

19 Sequences such as *-vavyey resulting from application of (343) both before and after lexical insertion are still ruled out by the disjunctive ordering principle given in (339).

Chapter 5: Verb Phrase Phenomena

This chapter discusses phenomena primarily concerned with the verb phrase, including degree of linkage between main verb and same-subject infinitival complements (Section 5.1.1), verb serialization (Section 5.1.2), placement of adverbs (Section 5.2), evidence for inclusion of the object within the structural verb phrase (Section 5.3), verbal incorporation of objects (Section 5.4), and verbal morphology including morphological causatives (Sections 5.5-5.13).

5.1. Verbal nexus

This section explores the degree of linkage or nexus between verbs in two types of constructions: same-subject infinitival complements (Section 5.1.1) and serial verb complexes (Section 5.1.2). In these constructions, two verbs or verb roots constitute a complex verbal constituent within the scope of a single simple clause. The degree of nexus is tighter than that found in the constructions discussed in Section 2.11.

This exploration presumes some notion of what a constituent and a clause are. Here I take operational definitions quite specific to Yagua. Constituency is in part determined by placement of second position clitics (Section 2.4), and partly by whether or not the linear sequence can be interrupted by elements such as subject, object, or oblique phrases. Foley and Olson (1985) define a clause as

that which has one and only one 'periphery', meaning that a single tense or aspect must have scope over the entire structure. Further, if there is more than one predicate within the construction, at least one argument must be shared by all predications. This definition fits rather well with what I suggest for Yagua below. If there is a shared argument between two predications, but if Set I and Set II clitics other than the coreferential jiy-, -yù, or no clitic, are used, then the predications do not form a single simplex clause. (Use of the coreferential clitics in itself does not guarantee that the predications constitute a single clause, however. Also recall that the coreferential clitics are never used for first and second person singular referents, regardless of the degree of linkage between predications.)

5.1.1. Same-subject infinitival complements

As discussed in Section 2.11, the clitic jiy- (COR) can be used in certain constructions if subjects of successive verbs or predications are coreferential. Alternatively, one of the verbs might have no Set I clitic. Use of other Set I clitics on both verbs in such constructions would be interpreted as indicating non-coreferential subjects (except for first or second person singular referents). One such construction involves same-subject infinitival complements. These complements are marked with the infinitival/participial nominalizer -jada or -janu (depending on dialect). The complement can precede or follow the main verb whether or not jiy- is used:

(351) Sajjootanurea rupiiyadájũ.
 sa-jjoota-numaa rupiiy-jada-jũ
 3SG-begin-now walk-INF-AL
 'She/he is now beginning to walk'.

(352) Murrãyanu savaãata.
 murrãay-janu sa-vaãata
 sing-INF 3SG-want
 'To sing she/he wants'.

(353) Savaãata jibyeedaníí quiivã.
 sa-vaãata jiy-jimyyi-jada-níí
 3SG-want COR-eat-INF-3SG fish
 'She/he wants to eat the fish'.

Same-subject infinitival complements as in (351) through (353) contrast with sequences of same-subject predications as in (354). In (354b, c), the non-coreferential Set I clitic sa- is used rather than zero or jiiy- to refer to the same participant referred to in (354a). Out of context, use of sa- on the three verbs in (354) could be ambiguous: it could refer to one, two, or three different participants. This correlates with the fact that the predications are all finite in form and they do not evidence the same degree of conceptual unity as do main verb and complement in (351) through (353) above. (354a-c) will be interpreted as encoding three different actions, whereas (351) will be interpreted as encoding two different facets of a single action or state of affairs. In (352) and (353) the infinitive is interpreted as encoding the goal of wanting.

(354) a. Sa-jaachiy. b. Sa-jaachiy.
 3SG-throw:spear 3SG-throw:spear

 c. Sacããsiityéenií munufu jásiy.
 sa-cããsiiy-tée-níí
 3SG-terminate-EMPH-3SG savage there

(a) 'He_i threw a spear. (b) He_i threw a spear.
 (c) He_i terminated the enemy there'. (TW032-034)

If tense is marked in constructions like (351) through (353), it can only occur on the finite verb and may have scope over both predications. Tense interpretation in (352) and (353) need not be the same between main and complement predications (the singing could be future to the wanting), but tense could not be marked on the complement.¹

There is no one well-defined set of aspectual morphology (Section 5.8). Some second position clitics, and verbal locational, iterativity, movement, completive, and imperfectivity suffixes all have aspectual meanings. Certain iterativity or distributive formatives, at least, may occur on infinitival complements. However, in all such cases that I know of, the iterativity or distributive suffix forms a well-lexicalized stem with the verb root and does not have scope over the finite verb, as in (355) and (356):²

(355) Savaḡata jaachipiḡyaḡjada.
 sa-vaḡata jaachiy-piḡy-yaḡ-jada
 3SG-want heart-VRBLZ-DISTRIB-INF
 'He wants to study (a problem)'.

Compare: jaachipiḡtya 'remember'

(356) Sḡucanurya raḡyaḡjada.
 sa-juḡanuy-rà raḡy-yaḡ-jada
 3SG-like-INAN jump-DISTRIB-INF
 'He likes to dance'.

Compare: raḡy 'jump'

Aspectual formatives such as those mentioned above may occur in the finite predicate and do have scope over the infinitival predicate. In (357), for example, the jumping would most likely have to be taken as iterative or as a customary habitual action in the

past, given occurrence of -núúy 'imperfective' in the finite verb.
 Iterativity and habitual aspects are types of imperfective aspect.

- (357) *Suucánunúúyada rāyada.*
sa-jucánu-núúy-jada rāy-jada
 3SG-like-IMPF-PAST3 jump-INF
 'He used to like to jump'.

Same-subject infinitival complements are different from other infinitival clauses and other complement clauses (Section 2.11) in that same-subject infinitives may intervene between the finite verb and its subject (though it need not occur contiguous to the finite verb as illustrated in (372) below). This is the only construction in which a non-adverbial, non-clitic element may occur between the verb and its post-verbal subject:³

- (358) *Sajjōtanumaa juvatadooda víchíy samocmusidyey.*
sa-jjōta-numaa juvatanu-jada sa-moo-mu-siy-day
 3SG-begin-now get:agitated-INF bird 3SG-face-LOC-AB-DAY
 'The bird(s) now began to get agitated in front of
 him'. (ISO59)

Example (359) shows that second position clitics may intervene between the main and infinitival complement predications:

- (359) *Rijjōta jīīta marichadooda tīītájū.*
riy-jjōta marichanu-jada
 3PL-begin JIITA march-INF all
 'They all began to march'. (CLS063)

To summarize, same-subject infinitival complements are different from independent clauses which have coreferential subjects as in (354) above, in that the former cannot take independent tense and aspect. Same-subject infinitival complements also require either

coreferential clitics, or no Set I clitics. (If the subjects are first or second person singular, coreferential clitics cannot be used. But no Set I clitic need occur.) Same-subject infinitival complements differ from indirect quote complements in that the latter can have independent tense and aspect even though the coreferential clitics are employed (Section 2.11.6). Same-subject infinitives are different from infinitival adverbials (Section 2.11.7) in that the former can intervene between the finite verb and its subject. This last fact also distinguishes same-subject infinitival complements from nominal object arguments of finite verbs. The latter cannot intervene between the verb and its subject. Thus, there is evidence that same-subject infinitival complements form a more tightly knit unit with the main verb than do other types of nominal and verbal complements. However, placement of second position clitics as in (359) recognizes that they are still separate constituents from the main verb.

The facts about same-subject infinitival complements accord well with the notion of 'core juncture' discussed by Foley and Olson (1985). Foley and Olson distinguish three levels in the clause. In simplex clauses the 'nucleus' is essentially the verb plus its aspectual operators. The 'core' is the nucleus plus those arguments which are subcategorized or selectionally restricted by the verb (more or less equivalent to what I term the nuclear predication in Chapters 2 and 6). The 'periphery' is the core plus non-core arguments such as locatives and other oblique noun phrases. Operators at the peripheral level include epistemic modals and

evidentials. At any given level tokens of the same type may join together to form complex constructions, potentially resulting in nuclear junctures, core junctures, and peripheral junctures. In a nuclear juncture, verbs or verb roots are joined together (not necessarily phonologically), and share all arguments equally. In a core juncture, however, the core arguments of each nucleus (verb) are still selected independently, though certain serial core junctures require the 'actors' of the two nuclei to be coreferential. The two cores share a common set of locational and time arguments, as well as tense and mood specification (though not necessarily aspect). Peripheral junctures result in conjoined clauses.

Foley and Olson are primarily concerned with types of verb serialization when they propose this schema, and serial constructions may have either nuclear or core junctures. But they clearly intend that the general framework should extend to languages which do not have canonical serial constructions. In Yagua, same-subject infinitival complements could be said to form core junctures with their main verbs. One of the arguments is, by definition, coreferential between the two verbs. But other arguments are selected independently. In (353) above, for example, quivá 'fish' is not an argument of vaata 'want' but only of jimiyi 'eat'. Nevertheless, the infinitival complement cannot have independent tense and person/number specification. Its immediately post-verbal placement also indicates a special type of juncture with the main verb. This is represented as in (360) (adapted from Foley and Olson):

(360) [AUX V₁ = V-INF S O₁ O₂]

C

Where '=' indicates core juncture within the scope of a single clause. The subject argument S is shared between V₁ and V-INF. (The relationship between O₁ and O₂, if they occur, and their verbs varies from case to case.)

We might hypothesize that whenever participants within a single \bar{C} or C clause are coreferential with one another, the coreferential clitics jiy- and -yü will encode all but the linearly first mention of the participant. This would cover the case of infinitival adverbials discussed in Section 2.11.7 which cannot have independent tense specification from the finite verb, and which could be paradigmatically substituted for nominal objects of postpositions. As with same-subject infinitival complements, infinitival adverbial phrases have lost their clausal status and are nothing more than parts of a simplex \bar{C} or C clause.

This hypothesis also accounts for why the coreferential clitics are not used within relative clauses even though relative clauses share an argument with their main clause (Section 2.11.4). In this case not everything within the syntactic scope of the higher \bar{C}/C clause forms a single clause. Rather, there is embedding of a relative \bar{C} clause within the higher \bar{C}/C clause. The relative clause retains its status as a clause. A single tense or aspect need not govern both clauses. In order to interpret reference inside the relative clause, a \bar{C} boundary must be crossed, but this is not true with same-subject infinitival complements and infinitival adverbials.

The notion of core juncture and occurrence within a single \bar{C} clause does not account so nicely for use of coreferential clitics in indirect quote complements. As illustrated in Section 2.11.6, except for use of the coreferential clitics, indirect quote complements are fully independent clauses. They may have independent tense and aspect and there is no overt complementizer. The time phrase in example (226) also illustrates that oblique ('peripheral') elements need not have scope over both verbs. In sum, occurrence of coreferential participants within a single \bar{C}/C clause is a sufficient, but not a necessary nor the only, condition for use of the coreferential clitics.

5.1.2. Verb serialization

A limited amount of verb serialization in the sense of Foley and Olson (1985) occurs. Only movement verbs may occur as the second member of a serial complex. These form one phonological word with the main verb as shown by palatalization and metathesis processes. The movement root immediately follows the other verb root or lexicalized stem.

(361) Sasiimyaasiyanu.
 sa-siiy-maasiy-janu
 3SG-run-go:out-PAST3
 'He ran out long ago'.

(362) Rafubéseesubéésiy.
 ray-nubésiy-jasumiy-jásiy
 1SG-stand:up-go:up-PROX1
 'I stood and got up earlier today'.

(363) Rádipurveesumiy.
rá-dipurvay-jasumiy
INAN-sprout-go:up
'It sprouted up'.

Unlike movement suffixes (Sections 5.8.3 and 5.8.4), movement roots can occur as main verbs. (A classifier serves as a nominalizer on the verb maay 'sleep' in (365).)

(364) Saşasúmiy mısajóva.
sa-jasúmiy mısajo-va
3SG-go:up ladder-DAT
'He goes up by the ladder (e.g. into the house)'.

(365) Samaasıy jíneejemyusiy.
sa-maasıy jíy-maay-jây-mu-siy
3SG-go:out COR-sleep-CL:cloth-LOC-AB
'He got up out of his sleeping mat/cloth'.

Foley and Olson argue that cross-linguistically, the most likely verbs to occur in serializing constructions are intransitive verbs of motion, location, or position:

Intransitive verbs, particularly active intransitive verbs of motion, location, or posture, are favored in a restricted slot to form nuclear junctures with another verb in an open slot. These are favored because as active intransitive verbs they introduce no new arguments in the core, all core arguments being a function of the lexical entry of the verb in the open slot in the juncture.

Following Foley and Olson, I hypothesize that the difference between finite verb plus same-subject infinitival complements and serial verb complexes in Yagua is one of 'core' versus 'nuclear' juncture. In a nuclear juncture, all arguments of the two verbs must be the same.⁴ This is represented as in (366):

(366) [AUX [V₁:V₂] S O₁ O₂]

C

Where V₂ is a movement verb root.

5.2. Adverbs

Within the verb phrase the majority of adverbs most neutrally follow the verb:

(367) Vuryaā jimyiy munātya.
vurya-ā
1PLINC-IRR eat first
'We're going to eat first'.

When adverbs precede the verb, it conveys extra pragmatic force or degree of the quality expressed by the adverb. Compare (368) and (369):

(368) Sa-rupíiy váneera.
3SG-walk fast
'She is walking fast'.

(369) Váneera sa-rupíiy.
'She is walking very fast'.

The heightened degree of the quality expressed or the pragmatic force communicated by preverbal positioning suggests that the preverbal adverb is actually occurring in the pragmatically marked PM position (cf. Chapters 2 and 6). However, some adverbs always precede the verb. Mitya 'just' is one such case. Mitya can be used postverbally, but only with appropriate pauses as indicated by the commas in (370a). Mitya also has the idea of 'nothing' and that is the sense conveyed in the following case.

(370) a. Néé tǝj rǝ suvǝchcharavǝjǝj "ti", mǝtya,
 néé tǝj rǝ suvǝj-su-sara-vǝjǝj
 NEG someone IRR be:afraid-TRNS-HABIT-1PL nothing just
 'There wouldn't be anyone who would frighten us, nothing,

b. níínǝjǝj jarǝpádoodǝ-ra tóó-cǝ-nǝj.
 níí-nǝj-tǝj jarǝpanu-jada-rǝ
 3SG-NIY-TIY bother-INF-INAN forest-Cǝ-in
 of those who are bothering ones in the forest. (LX045)

Jǝǝryǝj 'really' and adverbial phrases with jǝǝryǝj most commonly precede the verb. By its very meaning, jǝǝryǝj is emphatic.

(371) Jǝǝryǝj váneera sa-rupǝjǝj.
 really fast 3SG-walk
 'She is walking really fast'.

(372) Jǝǝryǝj sǝjǝcǝnǝjǝj rǝ jǝnǝvǝjǝjmu máásaanu.
 sa-jǝcǝnǝjǝj-rǝ jǝnǝj-vǝjǝjmu máása-janu
 really 3SG-like-INAN hammock-inside sit-INF
 'He really likes to sit in the hammock'.

5.3. Subject - object asymmetries: Evidence for a verb phrase containing the object?

Positing a structural verb phrase constituent containing the verb and object is one possible way to account for subject - object asymmetries. This would be particularly motivated if the subject - object asymmetries in question could be argued to stem directly from a structural difference where the subject is immediately dominated by the sentence (or clause), while the object is immediately dominated by the verb phrase.

One subject - object asymmetry in Yagua concerns what can determine the index of the coreferential clitics jǝj- and -yǝ. As discussed in Chapters 2 and 3, jǝj- is part of the Set I clitic paradigm and can refer to a subject, a genitive, or an object of a

postposition. The clitic -yù is part of the Set II clitic paradigm and can only refer to objects.

The clitics jíy- and -yù do not have an inherent person/number index, but take their index from something else within the C clause. This index can be controlled by a linearly preceding subject as in (373), but not by a linearly preceding object as in the ungrammatical reading for (374).⁵ Linearity alone does not account for the asymmetry, as both subject and object phrases can precede jíy and -yù clitics. Here I illustrate just for jíy:

(373) Preceding subject (underlined):
Sasuuta Celina jíyoorivyiimú.
 sa-suuta jíy-rooriy-váimu-níi
 3SG-wash Celina COR-house-inside-3SG
 'Celina_i washes him/her inside her_i house'.

(374) Preceding object (underlined):
 Sasuutanií Anita jíyoorivyiimu.
 sa-suuta-níi jíy-rooriy-váimu
 3SG-wash-3SG Anita COR-house-inside
 'She/he_i washes Anita inside his/her_i house'.
 *'She/hè washes Anita_i inside her_i house'.

Within certain frameworks, an explanation for this asymmetry might be (partially) sought in positing a constituent-command relation between a preceding subject and the jíy/-yù clitic, a relation which does not obtain between a preceding object and the jíy/-yù clitic.⁶ This relation does not hold between the object and the clitic because the object is 'lower' in the structure, occurring inside the verb phrase constituent. Positing SVO as the underlying basic order would facilitate such an analysis in that the verb and object are then contiguous, and a verb-plus-object constituent may be more easily argued for.

Even if one were to posit SVO as basic in some underlying sense in order to facilitate this analysis, existence of a verb-plus-object constituent would not in itself provide a unified account for the asymmetry in what can control the index of jíy and -yù. Not only can the index be controlled by a preceding subject, but also by a preceding genitive noun as in (375) and (376), or by the object of a postposition as in (377). That is, the index can be controlled by any Set I argument.

(375) Control by Genitive (underlined; genitive NP is bracketed):

[Tomása roori]vyiimu jichuutaní.
 rooriy-viimu jíy-suuta-ní
 house-inside COR-wash-3SG
 'In Tom's_i house he_i washed him/her_j.'

(376) Sasuuta [Anita roori]vyimíyu
 sa-suuta rooriy-viimu-yù
 3SG-wash Anita house-inside-CORO

'She_i washes her_j inside Anita's_j house'.
 OR: †She_i washes herself_i inside Anita's_j house'.

(377) Control by Object of Postposition (underlined):

Radíy síiva jíryoorivyimu.
 ray-díiy sa-íva jíy-rooriy-viimu
 1SG-see 3SG-DAT COR-house-inside
 'I saw him/her_i inside his/her_i house'.

What we need to account for is not the subject - object asymmetry, but the Set I vs. object asymmetry. Most likely a mixture of pragmatic and syntactic factors must be acknowledged in order to completely account for what can control the index of jíy- and -yù.⁷ My major point here is to show that positing SVO as the basic constituent order, such that one can more comfortably say the object is part of the verb phrase, does not in itself provide a unified explanation for what can control the indices of these clitics.

In Section 2.8 I noted another possible asymmetry between subject and object relative to question formation on arguments of embedded clauses. The available data are not conclusive as to whether such an asymmetry exists. But even if it should, there are other possible solutions besides positing a structural VP containing verb and object. First of all, subject - object (and even Set I argument - object) asymmetries are not the only ones that need to be accounted for in language. Second, there is no a priori reason that such asymmetries have to be accounted for in terms of structural or configurational relations. For example, Keenan (1984) discusses the closer semantic ties which hold between verbs and their objects (O), as opposed to verbs and their transitive subjects (A). By itself this factor might predict the existence of languages where asymmetries also exist between transitive subjects (A) and intransitive subjects (S), particularly as such semantic relations might have historically resulted in differential grammaticization of A versus S arguments, or differential behavior of A versus S arguments relative to certain syntactic phenomena. Exactly such syntactic asymmetries are, in fact, claimed to exist in some 'ergative-absolutive' languages (Dixon 1979, T. Payne 1982). However, Keenan's observation in itself does not account for languages such as Yagua where there may be asymmetries between objects (O) and intransitive subjects (S) as well. In languages such as this, why should transitive and intransitive subjects (A and S) be grouped together as opposed to objects? This is due to the fact that A and S share certain other properties which motivate grammaticization of a 'subject' category comprised of both S

and A. For example, Du Bois (1984) discusses the functional role which both S and A share in encoding given/highly topical information in discourse. Such grammaticization may have consequences in terms of subcategorization of verbs for their objects, as opposed to their subjects (both S and A).⁸ S. Anderson (1984) argues that in Kwakwaka'wakw, a verb-subject-object Wakashan language, subject-object asymmetries can be accounted for by subcategorization relations, rather than a configurational relation which presupposes a structural VP consisting of verb and object. A similar account could be argued for in Yagua (if not in most languages).

5.4. Incorporation

There is some evidence that object nouns can be incorporated into a verb phrase when the verb phrase is nominalized. The object noun anomalously precedes the nominalized verb rather than follows it, though it is not phonologically bound to the verb word. The opposite order cannot be used. I have no examples of such incorporation in non-nominalized verbs. (Classifiers, as in (378), function as nominalizers. Use of -ta in (379) to derive 'sell' from 'buy' is discussed in Section 5.10.)

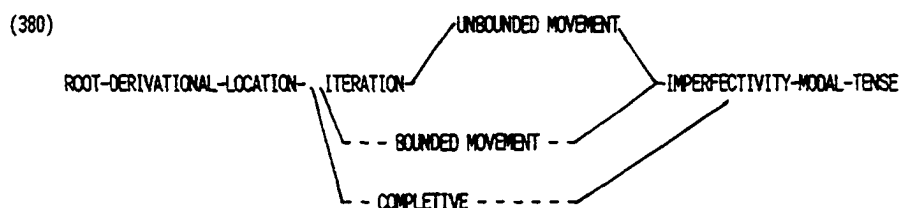
(378) jumufu juváavyey
 juváay-vay
 canoe make-CL:ANIM:PL
 'canoe makers'

(379) páa tǎaryutyi
 tǎaryy-ta-i
 bread buy-TA-NMLZR
 'bread seller'

5.5. Verbal morphology

Contrary to VIN, affixation in Yagua is almost exclusively suffixing. Lehmann (1973:64) suggests 'there is no tendency towards agglutinative morphology in VO languages as there is in OV languages', but this also does not hold for Yagua (and for many other VO languages).

It would be difficult, if not misleading, to describe verb structure in terms of strict positional classes. Some formatives would have to be in classes consisting of just themselves, and placement of some classes would be problematic as they evidence fluidity of positioning. As a first approximation, the organization of the verb can perhaps be visualized in terms of morpho-semantic categories, which are not to be taken as strict positional classes. (David Payne 1981 and Wise, to appear, have independently taken a similar approach to verb structure in Pre-Andine Arawakan languages. The Yagua verb is probably not as complicated as the Arawakan one.) The general organization of the verb is as follows, where the terms refer to morpho-semantic categories.



Within traditional treatments possibly everything between the ROOT and the TENSE, MODAL, and/or IMPERFECTIVITY categories would be termed 'derivational'. Although one category in (380) is termed DERIVATIONAL, in Section 5.13 I suggest that these are simply the most prototypically derivational affixes. It is very unlikely that formatives of all morpho-semantic categories would occur simultaneously on any given verb. Based on informal text counts, from zero to four suffixes is the normal range, discounting the DERIVATIONAL affixes.

There is no aspectual paradigm per se, but IMPERFECTIVITY, MOVEMENT, COMPLETIVE and ITERATION affixes all have aspectual meanings. (LOCATION suffixes also carry aspectual meanings, though perhaps to a lesser extent). There are two suffixes not represented in (380). The productive causative suffix -tániy may occur anywhere from before the category of ITERATION to before the category of MODAL. The potential/optative suffix -rúúy is similar, though it has also been found to occur before DERIVATIONAL affixes and does not clearly follow IMPERFECTIVITY suffixes. Differences in meaning may be conveyed by different orderings. Though these differences are often subtle, they suggest that a linear position class approach is an inaccurate way to view the structure within the verb. Rather, there is cyclicity of structure (Section 5.13). In the following sections I will start with discussion of tense (including but not limited to the TENSE formatives indicated in (380)), and generally work backwards to the DERIVATIONAL affixes. Following that, Sections 5.11 and 5.12

discuss the more variably ordered causative tániy and potential/optative -rúúy.

5.6. Tense

I define tense as that which 'relates the time of the situation referred to to some other time, usually to the moment of speaking' (Comrie 1976:1, 2). This definition does not restrict us to looking for one specific class of formatives which indicates time reference, though I exclude time words such as taariy 'yesterday' and taarimyusi 'tomorrow' from consideration. In Yagua there are three basic ways of indicating time reference: by means of the formative set labeled TENSE in (380), by use of a pre-verbal modal auxiliary to indicate future, or by the absence of both of these means to indicate present or narrative present.

Most theoretical treatments of tense recognize two or three possible semantic distinctions (cf. Lyons 1968, Comrie 1976, Steele 1978). Nevertheless, greater multiplicity of time reference is attested (Comrie 1985, Chapter 4). In Yagua, seven time distinctions are made by the three means mentioned above. These are future, present and narrative present, proximate future or immediate past (PROX1), proximate future or one day ago past (PROX2), several weeks ago past (PAST1), several months ago past (PAST2), and distant or legendary past (PAST3). Similar multiplicity of past time reference is found in the Panoan, and some of the Tacanan languages of the Amazon basin.

5.6.1. Future

Reference to future time, i.e., time following the time of reference (usually the time of speaking), is most neutrally indicated by the modal auxiliary ǎ or ra 'irrealis' which precedes the semantically main verb. The irrealis ǎ is prefixed with the regular Set I clitics. As mentioned in Section 2.3, when the third person plural prefix riy- is used, the allomorphic variant ra occurs, resulting in the form: riryǎ. When a fronted free noun phrase occurs, however, the variant ra is used without prefixation of the subject reference morphemes.

(381) Sǎǎ jumutaráy.
sa-ǎ jumuta-ráy
3SG-IRR help-1SG
'He/she is going to help me.'

(382) Riryǎ cǎǎsiirya.
riy-ra cǎǎsiiy-rǎ
3PL-IRR finish-INAN
'They will finish it.'

(383) Tomása ra jiya.
 ra jiya
Tom IRR go
'Tom will go.'

The irrealis ǎ plus the \bar{C} second position enclitic -numaa 'now' can indicate imminent future:

(384) Sǎǎnumaa jiya.
sa-ǎ-numaa jiya
3SG-IRR-now go
'He is now about to go.'

Actions indicated in commands are perforce future to the time of speaking. Commands also employ the irrealis ǎ (cf. Section 2.3).

(385) Néé yaa júyyaa!
 jiy-ǎ júyy-yaa
 NEG 2SG-IRR fall-DISTRIB
 'Don't fall (all over)!'

A modal future sense is conveyed by -ǎ plus the \bar{C} second position clitic -maa 'perfect'.

(386) Vuryaamaa múrraay.
 vurya-ǎ-maa
 1PLINC-IRR-PERF sing
 'Let's sing (literally: We must/ought to sing).'

Use of some mark of perfect to indicate modal force is not an idiosyncratic feature of Yagua. Compare English I have gone (perfect) versus I have to go (modal), and Spanish Ha comido 'he has eaten' (perfect) versus Ha de comer 'he has to eat' (modal). This suggests the existence of some cross-language, functional principle relating perfect aspect and certain modal ideas.

The proximate tense formatives -jásiy (PROX1) and -jáy (PROX2) most neutrally indicate past tense (Section 5.6.3). However, when used with the irrealis ǎ, they indicate time future to the time of speaking. Thus they indicate time on both sides of the time of reference. P. Powlison (1982) hypothesizes that -jásiy plus ǎ results in a 'hortatory future', though the translation given for (387a) does not obviously support this.

(387) a. Yaa numáatiy jitɔɔjásiy yúnoodámu,
 jiy-ǎ-numaatiy jitɔɔ-jásiy yú-noodá-mu
 2SG-IRR-when arrive:there-PROX1 COR-mother-LOC
 'When you arrive where your mother is,

b. yaa jutéesiy naadíva...
 jiy-a jutáy-jásiy naada-íva...
 2SG-IRR say-PROX1 3DL-DAT
 'you tell her...'

P. Powlison (1982) hypothesizes that -jáy plus a indicates 'future destiny', as per the following example:

(388) Mityanumaa jiryaa nicyeejáy vídyajarée.
 mitya-numaa jiryey-a nicyee-jáy vídya-jarée
 just-now 2PL-IRR speak-PROX2 sunlight-under
 'From now on you (plural) will chirp just on bright days.'

The 'frustrative/could' modal auxiliary riy can convey future time reference when used in the 'could' sense. This is illustrated in Section 2.3. When riy is used in its 'frustrative' sense however, it does not necessarily convey future tense.

5.6.2. Present

Present tense is indicated by absence of TENSE formatives and absence of the modal auxiliaries a 'irrealis' or riy in the sense of 'could'.

(389) Riiváarya.
 ray-jiváay-rá
 1SG-make-INAN
 'I make it/I am making it.'

(390) Siimiyiy.
 sa-jimiyiy
 3SG-eat
 'He eats/he is eating.'

As the translations in (389) and (390) indicate, the present tense has either an inherent progressive or an imperfect aspect. It can,

however, be used in conjunction with any of the aspectual formatives, yielding non-progressive or perfective meanings as well.

'Narrative present' is a phenomenon where the time reference is set at the beginning of a text, whereafter a present tense form is used to refer to actions understood as occurring in the past (Comrie 1976:73-8). In Yagua, narrative present is indicated by lack of TENSE formatives and absence of the modal auxiliaries a and (sometimes) riy, just as is present tense. The following example is taken from the beginning of a historical narrative:

(391) Savichamúiyada Moqui, jaasuurya ...
 sa-vicha-múiy-jada
 3SG-be-IMPF-PAST3 Moqui warrior

Siitijj jítta munufu riryooriryoo, nupócumusiy.
 sa-jitijj riy-rooriy-ròò nupócu-mu-siy
 3SG-arrive:here JIITA savage 3PL-house-around darkness-LOC-AB

'Long ago lived Moqui, a warrior... The savages arrive (=arrived) around their house (of Moqui and friends) in the darkness'. (TWO01)

5.6.3. Past

Time previous to the time of reference or time of speaking is indicated by one of five suffixes. A few hours previous to the time of reference is indicated by -jásiy (PROX1):

(392) Rayáásiy.
 ray-jiya-jásiy
 1SG-go-PROX1
 'I went (e.g. this morning).'

-Jásiy is not glossed as a past tense since in combination with a

'irrealis' a future (probably modal) time is understood (Section 5.6.1).

Time one day previous to the time of reference is indicated by -jáy (PROX2):

(393) Rijnúujéíí.
ray-junúuy-jáy-níí
1SG-see-PROX2-3SG
'I saw him (yesterday).'

-Jáy also is not glossed as a past tense since future time is understood when it occurs in combination with a 'irrealis' (Section 5.6.1).

Speakers vary somewhat on interpretation of -siy (PAST1) and -tiy (PAST2). For some, -siy indicates time from roughly one week ago to one or more months ago. -Tiy indicates time from roughly one to two months ago up to one or two years ago. For other speakers, -tiy indicates time from as much as four to five months ago up to one or two years ago. Presumably these speakers would extend the time reference of -siy to more than approximately one month ago.

(394) Sadiíchimyyaa.
sa-díiy-siy-maa
3SG-die-PAST1-PERF
'He has died (between a week and a month ago).'

In the context in which (394) was elicited the death had occurred about a week previous to the time of speaking. Compare (394) with (395):

- (395) Sadíitimyaa.
 sa-díiy-tiy-maa
 3SG-die-PAST2-PERF
 'He has died (between 1 to 2 months and a year ago).'

Distant or legendary past is indicated by -jada (V) or -janu (CAH, SJL) (PAST3).⁹

- (396) Raryupeeda.
 ray-rupay-jada
 1SG-be:born-PAST3
 'I was born (a number of years ago).'

- (397) Saramítifúnyada jánariy munátyiꞑ.
 sa-ramítiy-núny-jada munátya-ꞑ
 3SG-ford-IMPF-PAST3 deer first-NMLZR
 'The first deer used to ford (rivers).' (FSQ001)

The two proximate suffixes -jásiy and -jáy do not co-occur with the iterative suffixes -jayaa 'iterative' and -jaa (variant -yaa 'iterative movement to some location.' There is no such co-occurrence restriction with the other past tense suffixes. Compare (398) and (399) with (400) and (401).

- (398) *Rameejeyaa-jásiy Páuro roorimyu.
 'This morning I slept (iteratively) in Paul's house'.

*Rameejeyaa-jáy 'Yesterday I slept (iteratively).'

- (399) *Rameeyaa-jásiy 'A few hours ago I went (iteratively over there) to sleep'.

*Rameeyaa-jáy 'Yesterday I went (iteratively over there) to sleep'.

- (400) Rameejeyaa-siy 'Several weeks ago I slept (iteratively)'.
 Rameejeyaa-tíy 'Several months ago'
 Rameejeyaa-jada 'A long time ago'

- (401) Rameeyaa-siy 'Several weeks ago I went (iteratively over there) to sleep'.
 Rameeyaa-tíy 'Several months ago'
 Rameeyaa-jada 'A long time ago'

5.7. Modal suffixes

No one formative set indicates mood. The semantic categories of conditional (Section 2.11), debitive or obligation (Sections 2.3 and 2.4.1), degrees of certainty and warning (Section 2.7.2), and desiderative/potential/optative mood (Section 5.12) are expressed by distinct means. In this section I discuss the MODAL verbal suffixes -vaa and -táata.

Paul Powlison (personal communication) suggests that -vaa means 'action achieved' (ACHIEVE). However, it almost always occurs in negative contexts, conveying 'action not achieved'. It occurs after ITERATIVITY and MOVEMENT suffixes, but before the IMPERFECTIVITY suffix -sara:

(402) Sábooduu junooḁee riḁitiyenuḁeyaaḁvaḁday.
 sáboo-duu junoo-dee ray-jḁitiyenuy-nayaa-vaa-day
 sweet-CL:tube head-DIM 1SG-put:in-going:aimlessly-ACHIEVE-DAY
 'Little cane hearts I am going all over putting in
 (planting)'. (IW075)

(403) Dafu vánay duu-sḁ sa-a
 thus:not possible blow-O:NOM:ANIM:SG 3SG-IRR

cha-vaa-sara.
 be-ACHIEVE-HABIT

'Thus he can't be killed (with a blowgun)'.
 'Thus he can't be killed (with a blowgun)'.

(404) Dantya-múy yaa jaḁa-yaa-vaa-sara narya-day
 thus-NEG 2sg:IRR move-DISTRIB-ACHIEVE-HABIT day-DAY
 'Neither will you move (to another place) during
 the day'. (LX204)

The suffix -táata 'debitive' indicates that the subject had better do something. It occurs most often in direct speech.

- (405) Saaniiduutyatããtãfiyu.
 saáada-jiduutyatããtã-iyù
 2DL-prepare-DEB-CORO
 'You had better get yourself ready'. (DAVO33)
- (406) Jidyuntããtã-níí jamiryì tãtãjũ.
 jiy-duu-tããtã-níí
 2SG-blow-DEB-3SG selection all
 'You have to shoot a selection of all kinds'.

5.8. Aspect

No one paradigmatic set of formatives indicates aspect. I approach the topic primarily from a semantic perspective, discussing formatives from different paradigms which have some aspectual meaning. I define aspect as the way in which 'the internal temporal constituency of a situation' is viewed (Comrie 1976:3). The two second position \bar{C} clitics -maa and -numaa might be considered aspectual (Section 2.4.1). Brief discussion of their aspectual meanings is given in Section 5.8.1. Following that, specifically verbal aspectual morphology is discussed in Sections 5.8.2 through 5.8.6. The formative sets particularly in question are IMPERFECTIVITY, MOVEMENT, COMPLETIVE, and ITERATION.

5.8.1. Clitics with aspectual overtones

Though not part of the verbal morphology or verb phrase per se, the \bar{C} second position clitics -maa and -numaa have aspectual overtones. The enclitic -maa is a true 'perfect' which in the present tense indicates a past situation that has continuing relevance for the present. In past tenses it indicates a relation between a past state and an earlier situation (Comrie 1976:52, '53). It is frequently

(and in the speech of some, almost always) employed whenever the 'completive' formative -muuy is used.

- (407) Riyamaa riryoorimýju. (PRESENT)
 riy-ya-maa riy-rooriy-mu-jù
 3PL-go-PERF 3PL-house-LOC-AL
 'They have gone to their house.'
- (408) Naadasuutamuumyaa. (PRESENT)
 naada-suuta-muuy-maa
 3DL-wash-COMPLT-PERF
 'She has finished washing.'
- (409) Sasuutiimmuuyéésimyaa. (PROXIMATE 1) (CAH)
 sa-suuta-imu-muuy-jásiy-maa
 3SG-wash-down:river-COMPLT-PROX1-PERF
 'She has finished washing down river (a few hours ago).'
- (410) Rijyooptaadamaa murraayamu (PAST 3)
 riy-joota-jada-maa murraay-jamu
 3PL-begin-PAST3-PERF sing-INF
 'They had begun to sing (long ago).'

Apparently it is not possible to use -maa to express a future perfective such as 'We will have sung.' It can be used with -tiy clauses (Section 2.11.) when these have a 'when' reading, but apparently not when they have a future conditional reading:

- (411) Sadiífurree roorimyu,
 sa-díiy-nuvey rooriy-mu
 3SG-die-on:arrival:there house-LOC
- sa-mínu-máá-tiy jusinu-nii.
 3SG-kill-PERF-TIY Sitaracu-3SG

'He died on arrival at the house, when the Sitaracu (=a group of people) had killed him'. (TS025)

The enclitic -numaa 'now' carries an imperfective idea, but a single definition is difficult to formulate. With non-stative verbs as in (412) and (413) it indicates progressiveness. This is also

evident in the contrast between (414a) with -numaa and (414d) with the completive -muyy.

- (412) Riyaníífumaa jatuvay váriy.
 riya-ya-núúy-numaa jatu-vay
 3PL-go-IMPF-now drink-CL:ANIM:PL then
 'The drinkers are going now, then.'
- (413) Jityééryummaa.
 jiy-tááryu-numaa
 2SG-return-now
 'You are returning'.
- (414) a. rájúyyaamumaa naadasútay yúúva, "Tipyé"
 rá-júyy-yaamumaa naada-sútay yu-úva
 inan-fall-DISTRIB-now 3DL-shelter COR-DAT
 'Their shelter fell all over them "Tipyé!"'
- b. naada-safiy-yaamumaa jasúmiy
 3DL-shriek-DISTRIB-go:up
 'They jump up shrieking'.
- c. "Jeen! Naapyárufumaa."
 naay-páruy-numaa
 1DLEXCL-get:wet-now
 "Jeen! We are getting wet!"
- d. Rájúyyaamuy naadasútay títájú.
 rá-júyy-yaamuy naada-sútay
 inan-fall-DISTRIB-COMPLT 3DL-shelter all
 'Their shelter completely finished falling'. (KT039-042)

In stative contexts -numaa indicates a situation that is presently true:

- (415) Vásee saárifumaatéení
 sa-járiy-numaa-tée-ní
 directly 3SG-below-NOW-really-3SG
 'He is now directly under him'.
- (416) Mitya rúçadeenumaa.
 rúça-dee-numaa
 just spine-DIM-NOW
 'It's just bones now'.

-Numaa can be prospective, indicating something one intends to do or a situation which is imminent. For example, (417) can be used to indicate one's intention to leave.

(417) Rayanumaa.
ray-jiya-numaa
1SG-go-now
'I'm going now.'

5.8.2. Imperfectivity

An imperfective action is defined as one in which explicit reference is made 'to the internal temporal structure of a situation, viewing a situation from within' (Comrie 1976:24). There are a number of formatives in Yagua which have an imperfective meaning. Those belonging to the IMPERFECTIVITY morpho-semantic set are -núúy 'imperfective, -sara 'habitual' and -jancha (variants -janumucha and -jadamucha) 'continuative.' These suffixes follow the UNBOUNDED MOVEMENT suffixes, as shown in (419).

In discourse -núúy 'imperfective' is often used in past or narrative present tense descriptions and background information. It is most neutrally taken as indicating past time, even when no overt tense formative is used, though it may be taken with a present tense sense when the context so indicates. Since present tense is inherently imperfect and/or progressive in Yagua, additional use of -núúy would just reinforce this aspectual notion when the present tense is understood.

- (418) Ráchuutanúiy.
 ray-suuta-núiy
 1SG-wash-IMPF
 'I was washing/I am washing.'
- (419) Naadasuutanaayañanúiyada.
 naada-suuta-naayañ-núiy-jada
 3DL-wash-going:aimlessly-IMPF-PAST3
 'She used to go all over washing'.
 *Naadasuutanúife-eyañjada.
 naada-suuta-núiy-naayañ-jada

The formative -sara is a timeless habitual which cannot occur with any of the tense formatives, as shown in (421). For some speakers it is also unacceptable with any other IMPERFECTIVITY formatives. For some speakers it can occur with the COMPLETIVE -muy, as shown in (423) versus (424). With all speakers it can occur with the ITERATIVE and UNBOUNDED MOVEMENT formatives, as in (425) through (427).

- (420) Rameechara.
 ray-maay-sara
 1SG-sleep-HABIT
 'I'm always sleeping.'
- (421) *Saramúchusarajada. (TENSE)
 sa-ramúchhu-sara-jada
 3SG-ford-HABIT-PAST3
 'He always forded (across a river) long ago.'
- (422) *Saramúchunúichara. (IMPERFECTIVE)
 sa-ramúchhu-núiy-sara
 3SG-ford-IMPF-HABIT
 'He's always fording.'
 *Sa-ramúchhu-sara-núiy
- (423) For some speakers: (COMPLETIVE)
 *Naadasuutamunuchara.
 naada-suuta-muy-sara
 3DL-wash-COMPLT-HABIT
 'She always finishes washing/She finishes always washing.'

- (424) For some speakers: (COMPLETIVE)
 Rachuutamuchara.
 ray-suuta-muy-sara
 1SG-wash-COMPLT-HABIT
 'I always finish washing'.
- (425) Sũnáátyániye ʔsararáy. (ITERATIVE)
 sa-jũnááy-tániy-jayʔa-sara-ráy
 3SG-cry-CAUS-ITER-HABIT-1SG
 'He's always making me cry.'
- (426) Samaachajaʔsara. (ITERATIVE)
 sa-maay-sa-jaʔ-sara
 3SG-sleep-up:river-ITER:MVMT-HABIT
 'He always goes up river to sleep'.
- (427) Naadasuutatityiichara. (UNBOUNDED MOVEMENT)
 naada-suuta-tityiyy-sara
 3DL-wash-going:directly-HABIT
 'She always goes (or comes) washing'.

The formative -jancha 'continuous' means to do something without letting up or without stopping to rest. (According to one language consultant, -janumucha/-jadamucha is a 'more technical' form used primarily by older members of the community but with the same meaning.)

- (428) Ríreʔenchára.
 ray-jíriy-janchará
 1SG-hold-CONT-INAN
 'I keep on holding it (e.g., up in the air, without resting).'
- (429) Naananááyencha.
 naana-nááy-janchara
 3DL-bathe-CONT
 'They (two) keep on bathing.'

5.8.3. Unbounded movement

As with many South American indigenous languages, location and movement are important semantic features of Yagua. (Location is discussed in Section 5.9). Two types of movement with which the

action of the verb is carried out can be indicated by verbal suffixes. The UNBOUNDED MOVEMENT formatives indicate that a particular action is carried out throughout the time during which one is going along, or else they are unspecific with regard to the point or points at which the action was done relative to the movement. The relationship between action and movement is indicated in (430):

(430) <———— ACTION —————>
 <———— MOVEMENT —————>

The suffix -tityiy indicates that the action is done while going along directly to some destination. -Nayaa indicates that the action is done while wandering more or less aimlessly. These suffixes impart an imperfective or iterative sense to the action. They precede the IMPERFECTIVITY affixes as in (431) through (433).

(431) Naadasuutatityiifúyada.
 naada-suuta-tityiy-múy-jada
 3DL-wash-going:directly-IMPF-PAST3
 'She always comes washing'.

*Naadasutanútyityiyada.
 naada-suuta-múy-tityiy-jada
 3DL-wash-IMPF-going:directly-PAST3

(432) Rameetityiyencha.
 ray-maay-tityiy-jancha
 1SG-sleep-going:directly-CONT
 'I sleep while going along (as in a car)'.

*Rameeyenchatityiy.
 ray-maay-jancha-tityiy
 1SG-sleep-CONT-going:directly

(433) Siimiifayaasara rupíyadamu
 sa-jimiy-nayaa-sara rupíy-jada-mu
 3SG-eat-going:aimlessly-HABIT walk-INF-LOC
 'He always eats while traveling all over'.

They follow the COMPLETIVE -muuy as in (434). When they co-occur with -muuy, the resultant meaning is perhaps one of iterative completion of an action:

- (434) Siimiimyutityiimyáara.
 sa-jimyy-muuy-tityiy-maa-rà
 3SG-eat-COMPLT-going:directly-PERF-inan
 'He completed eating it while going along'. (But it could be that he did not finish all the food on one occasion.)

*Naadasuutatityiimyuyada.
 naada-suuta-tityiy-muuy-jada
 3DL-wash-going:directly-COMPLT-PAST3

The UNBOUNDED MOVEMENT suffixes most neutrally follow the potential/optative suffix -rúuy, when both movement and -rúuy have scope over a single participant (cf. Section 5.12):

- (435) Sùnaaryúutyiyy.
 sa-júnaay-rúuy-tityiy
 3SG-cry-POT-going:directly
 'He wants to cry while going along directly'.

- (436) Sùnaaryúúfeyaa.
 sa-júnaay-rúuy-nayaa
 3SG-cry-POT-going:aimlessly
 'He wants to cry while going all over the place'.

- (437) ?Siimiityiiryúuy.
 sa-jimyy-tityiy-rúuy
 3SG-eat-going:directly-POT
 'He wants to eat while going along directly'.

UNBOUNDED MOVEMENT suffixes do not easily co-occur with BOUNDED MOVEMENT suffixes which convey a more punctual sense (Section 5.8.4), nor with ITERATIVITY suffixes (Section 5.8.5).

5.8.4. Bounded movement

The BOUNDED MOVEMENT suffixes either bound the beginning, ending, or both beginning and ending of an action. They are more inherently perfective and/or punctual in aspect than are the UNBOUNDED MOVEMENT suffixes. Thus, there is some question about their acceptability with -jancha 'continuous', though they do occur with -núiy 'imperfective'. There are some co-occurrence restrictions with the UNBOUNDED MOVEMENT suffixes which also convey an imperfective sense (Section 5.8.3). Compare (440) and (441) below, for example. They do not co-occur with the stationary LOCATION suffixes.

The suffix -nuvǰǰ indicates 'action done upon arrival at the point of reference', while -nuvee indicates 'action done upon arrival at some location away from the point of reference'. These suffixes are related to the verb roots vǰǰ or viy 'arrive here' and veey 'arrive there'. Both these suffixes put a bound on the terminal point of the movement relative to some other action, as indicated in (438):

(438) ————— MOVEMENT —————>) ACTION

(439) Juntutaḡasá sḡvavǰǰnúiyanu.
 juntú-tḡasá sa-jḡvay-nuvǰǰ-núiy-janu
 post-middle 3SG-hit-on:arrival:here-IMPF-PAST3
 'Upon arrival here he hit/was hitting on the (house) post'.

(440) Sa-suuta-nayḡḡ-nuvee.
 3SG-wash-going:aimlessly-on:arrival:there
 'He washes there, over there, over there, whenever he arrives there'.

(441) But:
 *Sasuutatityiinuvǰǰ.
 sa-suuta-tityiy-nuvǰǰ
 3SG-wash-going:directly-on:arrival:here

- (442) Naanu-suuta-nuvee rār̥q̥q̥-t̥ḁs̥á-r̥á s̥új̥ay.
 3DL-wash-on:arrival:there up:river-middle-INAN clothes
 'Upon arrival upriver she washed the clothes'.

The suffix -chiy or -siy indicates action done in preparation for, or upon departure. This is probably etymologically related to the ablative postposition -siy, or to the verbs siy 'run' or maasiy 'go out'. It puts a bound on the inception of the movement relative to some action, as indicated in (443):

(443) ACTION (————— MOVEMENT —————>

- (444) Naadasuutachiffnújéy.
 naada-suuta-chiy-núy-jáy
 3DL-wash-DEPARTING-IMPF-PROX2
 'As the last thing before leaving, she washed yesterday'

- (445) Sa-nicyee-siy.
 3SG-talk-DEPARTING
 'She talked running away'.

The suffix -rij indicates 'action done enroute'. It is more punctual in aspect, putting a bound both on the ending of part of the movement, and a bound on the resumption of the movement relative to some action. This is diagrammed in (446):

(446) ——— MOVEMENT ———>) ACTION (——— MOVEMENT ———>

- (447) V̥v̥meer̥ij̥janu t̥ḁr̥íy.
 v̥v̥y-maay-r̥ij̥-janu
 1PLINC-sleep-enroute-PAST3 long:ago
 'Long ago we slept enroute'.

- (448) Siimiyḁr̥ij̥ v̥óoca.
 sa-jimyiy-y̥ḁ-r̥ij̥
 3SG-eat-DISTRIB-enroute cow
 'The cow chews while travelling'.

Example (448) does not imply that chewing and the travelling are simultaneous. Rather, as the cow is travelling along, she stops

(perhaps several times) to chew for a limited amount of time, and then continues travelling. The chewing is viewed as an event which punctuates the travelling. The effect of the UNBOUNDED MOVEMENT suffix -tityiy in (449), relative to its absence in (448), is to indicate that the stopping almost certainly occurred several times. Since -tityiy has an inherent imperfective meaning and -rij has an inherent punctual meaning, the resulting combination can only be interpreted as an iterative event.

(449) Siimiryijitityiy.
 sa-jimiy-rij-tityiy
 3SG-eat-enroute-going:directly
 'He stops enroute while going along to eat'.

*Siimityityiiryij
 sa-jimiy-tityiy-rij

(449) shows that -rij 'enroute' can co-occur with UNBOUNDED MOVEMENT suffix -tityiy, though this is not possible with the suffixes which bound only the inception or termination of the movement. With -nayaa, however, all the BOUNDED MOVEMENT suffixes appear to be acceptable. This is perhaps because -tityiy more clearly implies a single destination, while -nayaa implies no specific destination and thus iterative stopping at various points may be possible. With -nayaa, order of BOUNDED and UNBOUNDED MOVEMENT suffixes may vary, perhaps with subtle differences in semantic scope:

(450) Naada-suuta-nuvij-nayaa.
 3DL-wash-cn:arrival:here-going:aimlessly
 'She washes here, over here, over here, whenever she arrives here'. (There may be only one area of reference, with the washing done at various points within that area of reference.)

- (451) Naada-suuta-nayaa-nuvii-jada
 3DL-wash-going:aimlessly-on:arrival:here-PAST3
 'She used to come to every place to wash'.
 (There may be multiple points of reference.)

As in (449) above, -rii can only precede -tityiy. But it can occur on either side of -nayaa. Compare (452) with the ungrammatical example in (449):

- (452) Naada-suuta-nayaa-rii.
 3DL-wash-going:aimlessly-enroute
 'She stops to wash all over the place'.

Again, the variation in order reflecting differences in semantic scope may be possible with -nayaa because it allows interpretation of various locations, while -tityiy implies only a single destination.

Use of -rii 'enroute' is possible with the iterative formatives jayaa 'iterative' and -jadapúryii 'lack of iteration'. It precedes these iterative formatives. Apparently it does not occur with -jaa 'iterative movement' (cf. Section 5.8.5).

- (453) Naada-suuta-rii-jadapúryii-rà.
 3DL-wash-enroute-ONE:MVMT-INAN
 'She stopped enroute to wash it all at once'.
- (454) Naada-suuta-rii-jayaa.
 3DL-wash-enroute-ITER
 'She always stops enroute to wash'.
- (455) ?Naada-suuta-rii-jaa.
 3DL-wash-enroute-ITER:MVMT

5.8.5. Iteration

'Iterative' is defined as a situation which is repeated. There are two productive iterative morphemes. First, -jaa indicates 'iterative movement to some other location.'

- (456) Rameeyaaṭiy.
ray-maay-jaa-tiy
1SG-sleep-ITER:MVMT-PAST2
'Several months ago I went there various times to sleep.'

- (457) Raryeṭchajáára.
ray-raacha-jaa-ra
1SG-cut-ITER:MVMT-INAN
'I go there various times to cut it.'

The tense morphemes -jásiy 'proximate 1' and -jáy 'proximate 2' do not occur with -jaa, though future, present and the other past tenses are not so restricted (cf. Section 5.6.3).

The suffix -jaya is semantically more neutral than -jaa in that it does not imply movement. Compare the following with (456) and (457) above:

- (458) Rameejeyaaṣiy.
ray-maay-jaya-siy
1SG-sleep-ITER-PAST1
'A few weeks ago I slept various times.'

- (459) Raryeṭchajayáára.
ray-raacha-jaya-ra
1SG-cut-ITER-INAN
'I cut it various times / I cut it all the time.'

- (460) Ráchuutajayaṇúiyada.
ray-suuta-jaya-núiy-jada
1SG-wash-ITER-IMPF-PAST3
'I used to wash all the time / I used to live washing.'

It is extremely common for -jaya to occur whenever the IMPERFECTIVITY formative -sara 'habitual' is used:

(461) Naadasuutajayaaasara.
 naada-suuta-jayaa-sara
 3DL-wash-ITER-HAB
 'She is always washing.'

As (460) above shows, -jayaa can occur with the 'imperfective' -nuuy. It does not occur with the 'completive' -muuy:

(462) *Rameejeyaaamuuy.
 ray-maay-jayaa-muuy
 1SG-sleep-ITER-COMPLT
 'I finished sleeping various times / I finished sleeping (and waking up).'

Like the iterative movement formative -jaa, -jayaa does not occur with the -jaasiy and -jay tenses (cf. Section 5.6.3).

'Semelfactive' is defined as a situation which takes place once and only once (Comrie 1976:42). This aspect can be indicated by the formative -janupúuryii (dialect variant -jadapúuryii) 'suddenly' or 'with one action'. In other words, -janupúuryii indicates lack of iteration. It does not (easily) occur with verbs which have an inherent imperfective sense, such as jimviy 'eat', rupiiy 'walk', saayaa 'row' (and such collocations are unacceptable to some speakers).

(463) Raryeetchaadapúuryiira.
 ray-raacha-jadapúuryii-ra
 1SG-cut-ONE:MVMT-INAN
 'I cut it with a single blow.'

As in (463), -jadapúuryii most easily occurs with roots indicating some type of movement. It can, however, be used with some non-movement roots to figuratively convey 'quickly' or 'instantaneously.'

- (464) Samaayadapúúryíímaa.
 sa-maay-jadapúúryíí-maa
 3SG-sleep-ONE:MVMT-PERF
 'She has gone right to sleep/She has gone to sleep
 right away.' (Lit: 'She has gone to sleep with one blow'.)

The suffix -yaa or -yaa 'distributive' is somewhat problematic. The same formative appears to occur both contiguous to the root forming well-lexicalized verb stems, and also towards the periphery of the verb, perhaps even following the clitic -numaa.¹⁰

- (465) Sarááyaatánifuvííníí.
 sa-rááy-yaa-tániy-nuvíí-níí
 3SG-jump-DISTRIB-CAUS-on:arrival:here-3SG
 'He makes him dance upon arrival here'.

- (466) Ríípeniyáámumayáá.
 ray-jípeniy-yaa-numaa-yaa
 1SG-tap:foot-DISTRIB-now-DISTRIB

The suggested analysis of (466) is not certain. -Numayaa is conceivably a variant of -nayaa 'go aimlessly all over the place' (Section 5.8.3). -Yaa in (467) below, however, is clearly not part of -saniy, much less of -numaa.

Although not strictly iterative, -saniy 'group action done at the same time' has broader semantic associations with iterative formatives. Both -saniy and other iterative formatives indicate that the action is in some way distributed, either by the number of persons effecting the action, the number of entities receiving the action, or repetition of the action itself.

- (467) Ruuváachaniyaa jumuy samoomu.
 riy-juváy-saniy-yaa sa-moo-mu
 3PL-make-group:action-YAA war:club 3SG-face-LOC
 'They are making stone axes in front of him'. (LC055)

Powlison (1982) gives examples of -niyaa 'group action carried out by individuals successively'.¹¹

(468) Jiyuniy riryamufiyaa jada.
jiyu-niy riy-ramuy-niyaa-jada
here-NIY 3PL-pass-in:succession-PAST3
'Here they passed by in a file long ago'.

-Tiiy is an iterative formative used only with certain roots conveying some type of movement (cf. Section 5.10).

(469) a. Raryeetchatiiy.
ray-raacha-tiiy
1SG-cut-ITER
'I cut repetitively.'

Compare:

b. *Rimúútiiníí.
ray-jumúúy-tiiy-níí
1SG-look-ITER-3SG
'I am looking at him repetitively.'

Example (469a) could be interpreted as 'I cut one thing many times,' as 'I cut many things one time each,' or as 'I cut many things many times each.' However, -tiiy does not have a partitive sense; (469a) does not (necessarily) mean that I cut something just partially.

5.8.6. Completive

Following Comrie (1976:18), a perfective action is defined as one which is viewed in its entirety including beginning, middle, and end. There is no morpheme in Yagua which has exactly this meaning. However, -muyy 'completive' comes close to it. It can, for example, be used to describe a situation in which there are a number of trees, all of which fall down.

- (470) Rûpatyemyuuchiy níinu.
 rá-jûpatya-y-muuy-siy
 INAN-fall-ANTCAUS-COMPLT-PAST1 tree
 'The trees all fell down a few weeks ago.'

If the situation is such that there are a number of trees but only one or two fall down, it is not appropriate to use -muuy. Similarly, (471) communicates the idea of eating up everything with nothing left over.

- (471) Siimityánimyuuffii.
 sa-jimiy-tániy-muuy-níi
 3SG-eat-CAUS-COMPLT-3SG
 'He makes him eat everything up/He makes him finish eating.'

- (472) Rââ jîmîyûy tîitâjûra.
 ray-â jîmîyîy-muuy tîitâjû-râ
 1SG-IRR eat-COMPLT all-INAN
 'I'm going to completely eat everything.'

Unlike a true perfective, -muuy places heavy emphasis on the termination of an action. It does not indicate just that an action has stopped, as though it were interrupted, but rather that it is completed. Because of this it is best viewed as 'completive' rather than 'perfective'.

- (473) Sââ jîtîjî sanumâátiy juvâamyuuy.
 sa-â sa-numaatîy juvâay-muuy
 3SG-IRR arrive:here 3SG-when work-COMPLT
 'He's going to come when he finishes working.'

- (474) Rachuutamuuufumaa.
 ray-suuta-muuy-numaa
 1SG-wash-COMPLT-now
 'I'm now finished washing.'

- (475) Saquiivûûchumuuryûûy
 sa-quiivûûy-su-muuy-rûûy
 3SG-deceive-TRNS-COMPLT-POT
 'He wants to stop deceiving.'

If -muyy were a true perfective, I would expect the meaning of (475) to be 'He wants to deceive completely' rather than 'He wants to stop deceiving.'

With regard to position in the verb, -muyy is strange. Semantically it is most closely opposed to -núyy 'imperfective', and thus we might expect it to fall more or less into the same paradigm as the IMPERFECTIVITY suffixes. However, positionally it is not part of this set. It occurs before UNBOUNDED MOVEMENT suffixes such as -tityiy in (476), and after BOUNDED MOVEMENT suffixes such as rij in (477). Ungrammatical examples show ordering relations which cannot occur.

(476) Naadasuutamuntyityiyada.
naada-suuta-muyy-tityiy-jada
3DL-wash-COMPLT-going:directly-PAST3
'Long ago, she went along finishing washing'.

*Naadasuutatityiimyuyada.
naada-suuta-tityiy-muyy-jada

(477) Siimiiryijumuyyáá.
sa-jimyy-rij-muyy-maa
3SG-eat-enroute-COMPLT-PERF
'He has finished eating enroute'.

*Siimiimyuryij.
sa-jimyy-muyy-rij

It precedes ITERATION suffixes such as -jadapúryij 'with one action':

(478) Rachũmyuyadapũryĩra.
 ray-sũy-muuy-jadapũryĩ-rà
 1SG-bite-COMPLT-ONE:M/MF-INAN
 'I finished biting all at once (and there isn't any
 food left)'.

These distributional facts might suggest that its basic position is preceding the ITERATIVE formatives. However, it appears to have variable positioning relative to the IMPERFECTIVITY suffixes, which quite clearly come towards the end of the verbal suffix string:

(479) Sũnaamyuyenchajáy.
 sa-jũnaay-muuy-jancha-jáy
 3SG-cry-COMPLT-CONT-PROX2
 'She finished crying yesterday (and had been crying a
 long time)'.

(480) Sũnaayanumuchamuujéy.
 sa-jũnaay-janumucha-muuy-jáy
 3SG-cry-CONT-COMPLT-PROX2
 'She finished crying yesterday (and had been crying a
 long time)'.

As an alternative to -muuy, termination of an action may be conveyed analytically using the verb cáásiy 'to finish'.

(481) Vũcyáásiimyya jũveenní tĩĩqui nibi.
 vũy-cáásiiy-maa jũvay-janu-níi
 1PLINC-finish-PERF kill-INF-3SG one:ANIM:SG oscelet
 'We have finished killing an oscelet'.

In contrast to -muuy 'completive', there is no particular verbal morphology indicating 'ingressive' (beginning of action). Rather, this must be rendered analytically using the verb joota 'begin' plus another verb in an infinitival form.

(482) Sajq̄otanumaa nicyeejadájũ
 sa-jq̄ota-numaa nicyee-jada-jũ
 3SG-begin-now talk-INF-AL
 'She is beginning to talk'

5.9. Location

The **LOCATIONAL** suffixes represented in (380) indicate that the action was done at a stationary place. These are mutually exclusive with the **MOVEMENT** suffixes. The stationary **LOCATIONAL** suffixes occur immediately following highly derivational valence increasing, decreasing, or intensifying suffixes (Section 5.10), and before **ITERATION** suffixes.

The suffix -sa indicates action done 'upward' from the speaker's point of reference and is most neutrally taken to mean 'up-river'. The suffix -imu indicates action done 'downward' from the point of reference and is most neutrally taken to mean 'down-river'. By semantic extension, -sa and -imu can be used to indicate 'up-sky' and 'down-sky', as in mythological tales or when talking about airplanes. The suffix -ja indicates action done neither up nor down, but 'across from' the locational point of reference. That is, either across water (river or lake) or across land.

(483) Sasuutasajaã.
 sa-suuta-sa-jãã
 3SG-wash-upwards-ITER:MVMT
 'He goes up-river to wash every once in a while'.

(484) Sasuutiimuumyaa.
 sa-suuta-imu-muuy-maa
 3SG-wash-downwards-COMPLT-PERF
 'He has finished washing down-river'.

(485) Rameeyajáy.
ray-maay-ja-jáy
1SG-sleep-across-PROX2
'Yesterday I slept across (water or land)'.

Given that these suffixes indicate a stationary location where the action takes place, they are mutually exclusive with both the BOUNDED MOVEMENT formatives as in (486), and with the UNBOUNDED MOVEMENT formatives as in (487).

(486) *Naanusuutiimuruvée. (V)
naamu-suuta-imu-nuvée
3DL-wash-downwards-upon:arrival:there
'She washed upon arrival down river'.

(487) *Sasuutasatityiiy.
sa-suuta-sa-tityiiy
3SG-wash-upwards-going:directly
'She washes up-river while going along'.

Though they indicate that the action is done in a stationary location, there may be an inherent idea of returning to the locational point of reference as soon as the action is completed. Thus, it is apparently infelicitous to use an expression such as (488) if the intent is to stay and take a bath after washing.

(488) Naadasuutiimu jumísajomu.
naada-suuta-imu jumísa-jo-mu
3DL-wash-downwards go:down-CL:place-LOC
'She goes down to the port to wash (clothes)'.

5.10. Highly derivational morphology

The suffixes discussed in this section are termed DERIVATIONAL AFFIXES in the schema given in (380). These suffixes either change valence or increase the degree of intensity or activity associated

with the action. Occasionally they can derive verbs from nouns. They thus all have to do with transitivity in the larger sense of Hopper and Thompson (1980). The lexically restricted valence decreasing -y formative discussed in Section 2.2.2 is positionally part of the same set as the formatives discussed here. (I will not be concerned here with morphology which only derives verbs from nouns or visa versa, or with the productive causative -tányi discussed in Section 5.11.)

5.10.1. Lexically highly restricted suffixes

Lexically restricted valence increasing suffixes include -sa, -siy, -su, -na, -niy, and -nu. A few examples are provided here (see Doris Payne 1985a and Payne and Payne, in progress, for further exemplification and discussion). With most verb roots with which they can occur, the formatives -su and -niy have a causative sense, as in (490) through (492).

- | | | |
|-------|-------------------------|---------------------------------------|
| (489) | jidyo | 'wake up (oneself)' |
| | jidyo-siy | 'wake up (someone else)' |
| (490) | sa-cǝvay | 'she reduces herself (as in a diet?)' |
| | sacǝvachura | 'he reduces it (e.g. by |
| | sa-cǝvay-su-rà | drinking it)' |
| | 3SG-reduce-TRNS-INAN | |
| (491) | rà-jǝávyey | 'it (a plant) grows' |
| | INAN-grow | |
| | sajǝávyechuní | |
| | sa-jǝávyey-su-ní | |
| | 'he caused him to grow' | |

(492) sa-miisa 'she got better'
 sa-miisa-niy 'she healed (someone)'

(493) jiitya 'remove (for some purpose)'
 jiitya-nu 'wean, take away bottle (from baby)'

There are several other lexically-restricted derivational formatives which do not increase valency, some of which may increase transitivity in the larger sense of Hopper and Thompson (1980). A few examples are provided here. The lexically-restricted -tiyy occurs with certain verb roots which indicate action done with some sort of motion (cf. Section 5.8.5 on iterativity):

(494) a. Raarũura.
 ray-jarũũ-rà
 1SG-cut-INAN
 'I'm cutting it'.

b. Raarũũtiirya.
 ray-jarũũ-tiyy-rà
 1SG-cut-ITER-INAN
 'I'm chopping it up'.

(495) jiitya 'remove (for some purpose)'
 jiitya-tiyy 'take all apart'.

The suffix -vay indicates extra intensity when used with verb roots:

(496) mutiy '(to) cook' mutivyey '(to) cook with greater intensity'

jãÿ '(to) mature' jãÿvyey '(to) grow, mature'

When used with nominal roots or classifiers (which also come from nouns), -vay derives a verb:

- (497) *bi* 'CL:flower' *biivay* '(to) bloom'
 jaʃi 'pet animal' *jaʃivay* '(to) raise animals'

There is a -y formative which derives a progressive verb from a noun or in some other way indicates greater intensity of action:

- (498) a. *rimityu* 'old person'
 b. *Raryimityuffumaa* 'I am getting old'.
 ray-rimityu-y-numaa
 1SG-old:person-Y-now
- (499) a. *jiitya* 'remove (for some purpose)'
 b. *sajiityey*
 sa-jiitya-y 'he removes himself, he goes'

5.10.2. The instrumental/comitative -ta

The instrumental/comitative suffix -ta is unlike the valence increasing formatives just presented in that it is very unrestricted lexically. It most productively indicates that the direct object of a verb is a semantic instrument or comitative. There are extensions of this meaning with certain verb forms, and on infinitival nominalizations -ta may indicate 'while' (cf. (232) of Section 2.11.7). It is etymologically related to, and has the same shape as, the instrumental/comitative postposition.¹² The relationship between -ta as a verbal suffix meaning 'instrumental/comitative' and -ta as an instrumental/comitative postposition is a case of what Nichols (in progress) terms 'head-ward migration' of adpositions. (This is attested in a number of other languages, including Chechen, Ingush, Abkhaz, some Athabascan languages, and some Indo-European languages.) Compare the (a) and (b) forms:

- (500) a. Saya jįįta jįjyuvadata.
 sa-ya jįjy-juvada-ta
 3SG-go JIITA COR-kill(noun)-INST
 'He_i goes with his_i kill'.
- b. Sa-ya-ta jįįta-níi juvada.
 3SG-go-INST JIITA-3SG kill(noun)
 'He goes:with the kill(noun)'.
- (501) a. Satiryq̄ catéra padyetya.
 sa-tiryq̄ padyey-ta
 3SG-lie:down paper CL:thick:rectangular-INST
 'He lies (himself) down with a book'.
- b. Satiryq̄qtara.
 sa-tiryq̄-ta-rà
 3SG-lie:down-INST-INAN
 'He lies down with it (e.g. a book)'.

Example (501b) cannot mean that the agent participant makes something else lie down, nor that the agent uses something to make himself lie down where -rà would be interpreted as a true semantic instrument. Rather, the agent is accompanied by something as he lies down. When -ta is a verbal suffix, it is much more likely that the direct object which is a semantic instrument will be expressed just with a clitic as in (501b), rather than a clitic and a noun phrase as in (500b). This is because postposition incorporation is motivated by discourse/pragmatic factors, similar to 'ø-tive shift' in English. No other obliques can be promoted in this way to direct object status. (However, several other transitivity-increasing suffixes might be historically related to postpositions.)

-Ta incorporation occurs with transitive roots as well:

- (502) Sįichtifii quiivā quiichitya.
 sa-įichitiy-níi quiichiy-ta
 3SG-poke-3SG fish knife-INST
 'He pokes the fish with the/a knife'.

(503) S̄içhtityara quiichiy.
 sa-j̄içhitiy-ta-rà
 3SG-poke-INST-INAN knife
 'He pokes with the knife'.

Example (503) cannot mean that 'He pokes the knife', where the syntactic object is the patient which is poked. If the noun quiichiy 'knife' is deleted and just the Set II clitic -rà is used, it remains clear that -rà refers to a semantic instrument which is used to poke something else.

When an instrumental or comitative oblique is promoted to direct object status, the patient object continues to be treated morphologically as a syntactic object. Whether or not the patient object is encoded just with an overt noun phrase, with a Set II clitic, or with a Set II clitic plus noun phrase depends on the pragmatic status of the patient noun phrase. Different factors affecting both encoding choices and order are discussed in what follows.

First, in (504) the instrument is in an oblique postpositional phrase. The order of the oblique instrument and direct object is reversed from that found in (502) above, though the order in (502) is statistically more likely when there are full noun phrases encoding both a direct object and an oblique (cf. discussion in Chapter 6).

(504) INSTRUMENT DO=PATIENT
 S̄içhitiy j̄umurut̄â̄tara t̄īstāasuuy.
 sa-j̄içhitiy j̄umurut̄â̄-ta-rà
 3SG-poke machete-TA-INAN ball
 'He pokes the ball with a machete'.

In the following examples, the semantic instrument is encoded as a syntactic direct object, correlated with occurrence of -ta in the

verb. Examples such as (505) are perhaps unlikely because overt noun phrases are not used in context if everything is definite and nothing is pragmatically marked. Nevertheless, two-object clauses are grammatical, and are also found with inherently trivalent roots (Section 2.1.1.4) and in derived morphological causatives (Section 5.11). Two Set II clitics can occur postverbally in all such clauses.

(505) DO=INST DO=PATIENT
 S̄ichitityara j̄umurut̄ãara t̄j̄istāsuuy.
 sa-j̄ichitiy-ta-rã j̄umurut̄ã-rã
 3SG-poke-TA-INAN machete-INAN ball
 'He pokes:with the machete the ball'.

Another form more likely than that found in (505) is to use just a postverbal clitic to refer to the patient object. The order given in (506) and (507) is the only one possible when just a clitic encodes the patient:

(506) DO=INST DO=PATIENT
 S̄ichititya- ra j̄umurut̄ãñii
 sa-j̄ichitiy-ta-rã j̄umurut̄ã-nii
 3SG-poke-TA- INAN machete-3SG
 'He pokes:with the machete him'.

(507) S̄ichitiy rãtara.
 sa-j̄ichitiy rã-ta-rã
 3SG-poke INAN(object of postposition)-TA-INAN(direct object)
 'He pokes it with it'.

Another form also more likely than that in (505) is for one of the overt object phrases to occur before the verb. This is simply because overt noun phrases are more natural when there is a reason for using them, as for example when they indicate a pragmatically marked status (Chapter 6). There is never a Set II clitic referring to a direct object when the direct object occurs preverbally. But in (508) and

(511) DO=INST DO=PATIENT
 Sijchitityara jumurutaa tjjstaasuuy.
 sa-jichitiy-ta-ra jumurutaa
 3SG-poke-TA-INAN machete ball
 'He pokes:with the machete a ball'.

In (512) the instrumental object is not referenced by a Set II clitic, even though it is post-verbal. Examples such as (512) are unlikely probably because -ta-incorporation is (partially) motivated by discourse contexts where the semantic instrument is definite and/or highly continuous with previous discourse or important in the subsequent discourse.

(512) Sijchitityara tjjstaasuuy jumurutaa.
 sa-jichitiy-ta-ra
 3SG-poke-INST-INAN ball machete
 'He pokes:with a machete the ball'.

Notice (513), however, where the (metaphorical?) semantic instrument/comitative jatoonu is non-referential, it is not preceded by a Set II clitic, but it is still registered with -ta in the verb:

(513) Riryaasachtamaa yjumuuy jatoonu varidyey.
 rirya-jasacha-ta-maa yi-jumuuy jatu-jamu variy-day
 3PL-dawn-INST-PERF 2SG-lock drink-INF then-DAY
 'They have woken up with, you see, drinking then'. (RS152)

There are some roots with which -ta does not impart any obvious instrumental or comitative meaning, and it could be argued that there are really two, homophonous, derivational morphemes -ta.

(514) a. Radacumyaa.
 ra-dacuy-maa
 INAN-spoil-PERF
 'It has spoiled (e.g. a fruit)'.

b. Rádacútyaníy.
 rá-dacúy-ta-níy
 INAN-spoil-TA-TRNS
 'It is making (something else) spoil (inside)'.

(515) a. Sanicyee váturútya.
 sa-nicyee váturúy-ta
 3SG-talk woman:with:children-INST
 'She/he talks with the woman'.

b. Sanicyeetatítiyiifaaada váturúy.
 sa-nicyee-ta-títiyiy-naada
 3SG-talk-TA-going:directly-3DL woman:with:children
 'She/he talks with the woman while going along'.

Example (515b), where -ta does not effect high tone on the preceding syllable, apparently contrasts with (516) which has high tone on the syllable preceding -ta. This supports a possible two-ta analysis.

(516) conveys a sense of distance between the two participants:

(516) Sanicyéetatítiyiifaaada váturúy.
 sa-nicyee-ta-títiyiy-naada
 3SG-talk-TA-going:directly-3DL woman:with:children
 'She/he calls talking with the woman while going along'.

With the tuvachu 'to hear', -ta also has a distancing effect, resulting in 'to hear from a distance' or something close to that.

In the following, -ta has neither a distancing nor an instrumental/comitative meaning, but correlates with an increase in volitionality, involvement, or intensity. It thus correlates with higher transitivity in the broader sense of Hopper and Thompson (1980):

(517) a. Sɔ̀múúfíí deenu.
 sa-jumúúy-níí dee-nu
 3SG-look-3SG DIM-CL:ANIM:SG
 'She looks at the boy'.

- b. *Suñmútyaní deenu.*
sa-junúy-ta-níí dee-nu
 3SG-look-TA-3SG DIM-CL:ANIM:SG
 'She watches/takes care of the boy'.

In (518b) *-ta* appears to correlate with a semantic decrease in transitivity relative to (518a) (again in the sense of Hopper and Thompson), even though morphologically it correlates with change from a dative object to a direct object. But the semantics of the verb root *jántyuyy* are not very clear to me.

- (518) a. *Rántyuyy síiva Tomásá.*
ray-jántyuyy sa-íva
 1SG-save 3SG-DAT Tom
 'I save Tom' or 'I free Tom'.

- b. *Rántyuytyní Tomásá.*
ray-jántyuyy-ta-níí
 1SG-save-TA-3SG Tom
 'I give pity to Tom' or 'I show pity on Tom'.

If a given verb root frequently occurs with *-ta*, the meaning of *-ta* with that particular root might be particularly subject to semantic bleaching or extention over time. In the cases where *-ta* is not clearly instrumental or comitative in meaning or does not increase valency, it still generally conveys greater intensity of volitionality (but see (518)). Hopper and Thompson (1980) have shown that valency and intensity are functionally related and is very plausible that a given formative might move from one of these categories to the other. The fact that some stems with *-ta* seem more idiosyncratic in meaning might suggest two layers of *-ta* migration at different points in time.¹³

5.11. Morphological causatives with -tányi

In Section 5.10 above I noted that -su and -niy, two of the highly DERIVATIONAL lexically restricted formatives, may convey a causative event. These formatives must occur immediately after the verb root. In this section I discuss the productive morphological causative -tányi and reference to causee and patient of the caused event. -Tányi may occur anywhere from after LOCATIONAL formatives to before MODAL formatives.

5.11.1. Morphology of the causative verb

Unlike many of the formatives discussed in Section 5.10, -tányi 'causative' is completely productive. It may occur with verb stems which already have some valence increasing morphology. It does not necessarily occur contiguous to the verb root. It forms divalent and trivalent predications from univalent and divalent predications, respectively.

- (519) Sa-maay. 'He sleeps'.
3SG-sleep
- (520) Samaatyánfíi Rospita. 'He makes Rospita sleep'.
sa-maay-tányi-níi
3SG-sleep-CAUS-3SG
- (521) Sa-suutá-rà. 'He washes it'.
3SG-wash-INAN
- (522) Sasuutatánfíira. 'He makes him wash it'.
sa-suuta-tányi-níi-rà
3SG-wash-CAUS-3SG-INAN

Depending on placement relative to other verbal suffixes, the scope of causation may change. In cases where scope relations are clear,

the verb root or stem and those suffixes to the left of -tányi are predicated of the causee, whereas -tányi and suffixes to its right are predicated of the causer:

- (523) Sǫ́naatyánfíi Mario.
 sa-júnaay-tányi-níi
 3SG-cry-CAUS-3SG Mario
 'He makes Mario cry'.
- (524) Sǫ́naaryúútyánfíi.
 sa-júnaay-rúúy-tányi-níi
 3SG-cry-POT-CAUS-3SG
 'He makes him want to cry'.
- (525) Sǫ́naatyániryúúfíi.
 sa-júnaay-tányi-rúúy-níi
 3SG-cry-CAUS-POT-3SG
 'He wants to make him cry'.
- (526) Siimiityániryúújéryéy.
 sa-jimyiy-tányi-rúúy-jáy-ráy
 3SG-eat-CAUS-POT-PROX2-1SG
 'He wanted to make me eat yesterday'.
- (527) Siimiiryúútánijéryéy
 sa-jimyiy-rúúy-tányi-jáy-ráy
 3SG-eat-POT-CAUS-PROX2-1SG
 'He made me want to eat yesterday'.

The more complicated a verbal form becomes, the more likely it is that judgments will be fuzzy regarding which participant a particular suffix has scope over: the causer or the causee. When there is fuzziness, usually both readings are accepted. In (528), for example, the suffix -jaa indicates iterative movement. Under one reading the movement seems to apply to the causee, and under the other, to the causer.

- (528) Sûnaatyániyaaráy.
 sa-jûnaay-tániy-jaa-ráy
 3SG-cry-CAUS-ITER:MIMP-1SG
 'He makes me come (or go) to cry several times'.
 OR: 'He comes (or goes) several times to make me cry'.

Part of the ambiguity is probably due to the particular verbal suffixes involved. This is particularly so with the more highly aspectual ITERATIVITY, IMPERFECTIVITY, and MOVEMENT suffixes. (Readings with the COMPLETIVE -muuy are usually much sharper.) For example, whenever there is an iterative idea involved, potentially both the causing and the caused action are iterative, with consequent lack of a clear sense that the iterative suffix should have scope over just one of the participants. A similar ambiguity arises with suffixes denoting imperfective actions, as in (529) and (530).¹⁴

- (529) a. Râsirîjveenchatániryéy
 rá-jasirîjvay-jancha-tániy-ráy
 INAN-sneeze-CONT-CAUS-1SG
 b. Râsirîjvatyâdeencharáy
 rá-jasirîjvay-tániy-jancha-ráy
 INAN-sneeze-CAUS-CONT-1SG

Both: 'This is making me sneeze for a considerable time'.

- (530) Sûnaaryûutyánifeyaanií
 sa-jûnaay-rûuy-tániy-nayaa-níí
 3SG-cry-POT-CAUS-going:aimlessly-3SG
 'He makes him want to cry while travelling'. (Apparently both participants are travelling together.)

In (530) there is no clear distinction that one participant is travelling all over and the other not. -Nayaa 'going aimlessly' appears to have scope over both causing and wanting to cry, and over both participants. In contrast, the sense of (531) is that the causee is the one going all over, while the causer need to be doing so.

- (531) Sarupiiŋeyaaŋtánníí.
 sa-rupíiy-nayaa-tániy-níí
 3SG-walk-going:aimlessly-CAUS-3SG
 'He makes him walk all over'.
 OR: 'He sends/commands him to walk all over'.

Another similar pair is (532a, b). In the (a) form, where the BOUNDED MOVEMENT suffix -nuv̥̥̥ is to the right of -tániy, the BOUNDED MOVEMENT suffix has scope over both causer and causee. But in the (b) form, where it occurs to the left of -tániy, it has scope only over the causee.

- (532) a. Saraaŋyaaŋtánííŋnuv̥̥̥níníí.
 sa-raaŋy-yaa-tániy-nuv̥̥̥-níí
 3SG-jump-DISTRIB-CAUS-upon:arrival:here-3SG
 'He makes him dance upon arrival here'. (Whose arrival not specified; perhaps both are arriving together.)
- b. Saraaŋyaanuv̥̥̥táníííí.
 sa-raaŋy-yaa-nuv̥̥̥-tániy-níí
 3SG-jump-DISTRIB-upon:arrival:here-CAUS-3SG
 'He makes him come here to dance'.

If we hypothesize that -tániy and all suffixes to its right have scope over the act of causing, while suffixes to the left of -tániy have more limited scope over the caused event, we can account for the lack of ambiguity in cases where there is only one reading as in (531) and (532b). When the suffixes to the right of -tániy are aspectual, it accounts for the ambiguity, given that the aspect of the caused predicate is not independent from that of the CAUSE predicate. Nevertheless, there are examples which seem to violate this hypothesis:

(533) Siimiimyuryúútyániy t̥i̥t̥ájunií.
 sa-jimiyi-muuy-rúúy-tániy t̥i̥t̥ájunií
 3SG-eat-COMPLT-POT-CAUS all-3SG
 'He wants to make/command him to eat everything'.

Here, the scope of -muuy 'completive' is apparently over the caused event of eating, while the scope of -rúúy is over the act of causing. According to the hypothesis, we would expect -tániy to occur between -muuy and -rúúy. Still, the following examples, employing the same suffixes as (533), conform to the earlier hypothesis:

(534) Siimiityániimyuryúúf̥i̥ií.
 sa-jimiyi-tániy-muuy-rúúy-níí
 3SG-eat-CAUS-COMPLT-POT-3SG
 'He wants to finish/leave off making him eat'.

(535) Sanicyeemuuryúútyáff̥i̥ií.
 sa-nicyee-muuy-rúúy-tániy-níí
 3SG-talk-COMPLT-POT-CAUS-3SG
 'He makes him want to finish talking.'

Following discussion of Set II clitic reference and order of arguments in -tániy causative constructions in Section 5.11.2, and discussion of the potential/optative -rúúy in Section 5.12, I will return to discussion of scope within the verb.

5.11.2. Set II reference and order of arguments with -tániy causatives¹⁵

In this section I discuss use of Set II clitics to refer to causees and patients of caused events, and order of causee and patient arguments of caused events. In causatives formed on univalent verb stems, the causee is treated as the direct object of an ordinary divalent clause. When definite, the noun phrase encoding the causee

is preceded by a Set II clitic. The Set I clitic on the verb agrees with the causer, as in (523) through (527) above.

5.11.2.1. Two object causatives when one object is non-specific

A trivalent clause results when a causative is made from a divalent verb stem. There is a pragmatic tendency in two object clauses for one object to be specific and animate while the other is non-specific and almost never human. In this case, the specific object is referenced by a Set II clitic. If only one of the objects is specific, it is generally the causee. However, it need not be, as (536) shows. The sense of -tányi in (536) is 'to allow' rather than strictly causation.

- (536) Ricyāāsiityāniy munufūmiyu.
riy-cāāsiiy-tāniy munufū-miy-yū
3PL-finish-CAUS enemy-PL-CORO
'The enemies allowed (someone) to finish them off'.
*'They_i allowed the enemies to finish them_i off'.

If the patient of the caused event is non-specific, it cannot be referred to with an enclitic. Noun phrases encoding the causee and the patient of the caused event may occur either in the order CAUSEE - PATIENT OF CAUSED EVENT or its reverse, regardless of specificity. This is shown in (537) and (538) (O_1 = causee; O_2 = patient of caused event). However, the preferred form is for the non-specific object not referenced by the clitic to occur first, as in (537). Recall that Set II clitics attach to whatever immediately precedes them, whether this is the verb, subject, or some other element, though they form a

syntactic constituent with what follows. In (537) the Set II clitic attaches to the non-specific object quiivă 'fish'.

(537) Riimiityániy quiivăníí Janíta. O_2-O_1
 ray-jimiy-tániy quiivă-níí
 1SG-eat-CAUS fish-3SG Anita
 'I make Anita eat fish'.

(538) Riimiityánfíí Janíta quiivă. O_1-O_2
 ray-jimiy-tániy-níí
 1SG-eat-CAUS-3SG Anita fish
 'I make Anita eat fish'.

If one object is referenced only by a Set II clitic without an accompanying noun phrase, the clitic must come finally in the clause as in (539).

(539) Riimiityániy quiivă mŭsajomníí. O_2-O_1
 ray-jimiy-tániy mŭsa-jo-mu-níí
 1SG-eat-CAUSE fish go:down-CL:place-LOC-3SG
 'I make him/her eat fish at the port'.

5.1.2.2. Two object causatives when both objects are specific.

When both objects are specific, both may be referred to with Set II clitics (underlined), with or without accompanying noun phrases. Syntactic constituency is indicated by brackets.

(540) Rachuutatán[fíí Janíta][ra sŭjay].
 ray-suuta-tániy-níí Janíta-ră
 1SG-wash-CAUSE-3SG Anita-INAN cloth
 'I make Anita wash the clothes'.

When just clitics or pronouns are used, reference to the causee precedes reference to the patient of the caused event:

(541) Siimiityánfiira.
 sa-jimiy-taniy-níi-rà
 3SG-eat-CAUSE-3SG-INAN
 'He makes him eat it'.

(542) Tomás rumutyádáásiy rárya. (CAH)
 rumuy-tániy-jásiy ráy-rà.
 Tom spill-CAUSE-PROX1 1SG-INAN
 'Tom made me spill it'.

Although it is possible to reference both objects with clitics, in context the preferred form is to refer to one of the objects by means of a clitic and to use a bare noun phrase with no accompanying clitic for the other (for third persons), even though both may be specific. Whichever object is referred to by the clitic comes finally in the clause, regardless of whether it is the causee or the patient of the caused event. In ambiguous cases where both specific objects have the same number, person, and animacy, the Set II clitic is preferably interpreted as referring to the causee. This is due to a cluster of properties associated with causees, some universal and some specific to Yagua. First, causees are more likely animate than are patients of caused events. Thus causees are generally higher in inherent topicality than are patients of caused events (cf. Silverstein 1976). Second, causees are generally animate and can act volitionally. In contrast, patients of caused events could be inanimate and/or non-volitional. Causees are thus more likely to be entities talked about through a longer portion of the discourse, given that they can act volitionally. Thus they are more likely to be highly topical in the sense that they are more highly continuous throughout the discourse (cf. Givón 1983), and are more likely to be what the text or subtext is about, relative to patients of caused

events. Third, highly topical participants that are in the hearer's consciousness are encoded with the most attenuated device possible in the given context. This is motivated by Haiman's (1983) economic principle: Information which is known should be mentioned in the most attenuated manner possible, even to the point of complete ellipsis. Thus, when there are two object participants in the same clause, the causee is preferably encoded with a clitic since it is more likely to be highly topical and be already in the hearer's consciousness. This becomes crucial in interpreting some examples below.

First of all, consider (543). Causees have subject properties (or more precisely, Set I argument properties) to the extent that they can control the index of jíy- and -yù, even though they are morphologically encoded as direct objects:

(543) Riimiityáffíí Aníta jíquiivâ.
 ray-jímyiy-tániy-níí jíy-quiivâ
 1SG-eat-CAUS-3SG Anita COR-fish
 'I make Anita_i eat her_i fish'.
 *'I make her_i fish eat Anita_i.

The starred reading in (543) is pragmatically anomalous. But in addition, Aníta is referenced with the Set II clitic -níí, with the resultant interpretation that Aníta, not her fish, is the causee.

In both (544) and (545) saquiivâ Aníta is a genitive constituent 'Anita's fish'. The clitic -yù is construed as coreferential with the next preceding Set I argument. In both cases this is Aníta. In (544) there is no Set II clitic níí 'third singular' preceding either object argument. The pragmatically most likely interpretation is that Anita will do the eating. Thus -yù refers to the causee Anita.

(544) Yaa jimiityániy [saquiivá Anita]yu.
 jiy-ə jimiyi-tániy sa-quiivá Anita-yù
 2SG-IRR eat-CAUS 3SG-fish Anita-CORO
 'Make her_i eat Anita's_i fish'.

In (545) -yù is interpreted as referring to the patient of the caused event which is still Anita. This is because the Set II clitic níí precedes saquiivá Anita 'Anita's fish', with the consequent interpretation that saquiivá Anita must be the causee.

(545) Yaa jimiitán[níí [saquiivá Anita]]yu.
 jiy-ə jimiyi-tániy-níí sa-quiivá Anita-yù
 2SG-IRR eat-CAUS-3SG 3SG-fish Anita-CORO
 'Make Anita's_i fish eat her_i'.

Clitic reference to the causee can be omitted, with resulting formal ambiguity when both the subject and the causee are third person.

(546) Sarumutyádáásiy Alchícora.
 sa-rumuy-tániy-jásiy Alchíco-rá
 3SG-spill-CAUS-PROX1 Alchico-INAN
 'Alchico made (someone) spill it'.
 OR: 'He made Alchico spill it'.

If Alchico is taken as the subject in (546) then all formal reference to the causee has been omitted. The interpretation of (547) is parallel except that the Set II clitic -níí refers to an animate participant which is therefore interpretable as the causee.

- (547) Siimiityániy quiivánií.
 sa-jimiy-tániy quiivâ-níí
 3SG-eat-CAUS fish-3SG
 'The fish is making him eat'.
 OR: 'He makes the fish eat it (animate)'.

However, the ungrammaticality of (548) indicates that omission of all reference to the causee is not normally acceptable.

- (548) *Siimiityáníí quiivâ.
 sa-jimiy-tániy-níí
 3SG-eat-CAUS-3SG fish
 'He is making him eat the fish'.
 (where -níí and quiivâ are coreferential)

5.12. Morphological potential/optative mood

The suffix -rúúy expresses both potential (able to) and optative (expressing a wish) moods. It may also express the meaning 'to think'. Here I gloss it as 'potential' (POT).¹⁶ As with the causative -tániy, -rúúy has some freedom of placement. It generally follows ITERATIVITY suffixes and preferably precedes UNBOUNDED MOVEMENT suffixes:

- (549) Siimiryúúy.
 sa-jimiy-rúúy
 3SG-eat-POT
 'He wants to eat'. / 'He can eat'.

- (550) Siimiryúútyítyiy.
 sa-jimiy-rúúy-títyiy
 3SG-eat-POT-going:directly
 'He wants to eat going along'.

But:

- ?Siimiityítyiiryúúy.
 sa-jimiy-títyiy-rúúy
 3SG-eat-going:directly-POT

-Rúúy preferably precedes the IMPERFECTIVITY suffixes:

(551) Ratyoochiryŭŭŭyadaníi.
ray-tooohiy-rŭŭy-nŭŭy-jada-níi
1SG-leave-POT-IMPF-PAST3-3SG
'I wanted to leave him (long ago)'.

It both precedes and follows the completive -muuy. Compare (552) and (553). It both precedes and follows -tány as in (552a) and (552b). Note the lack of clear scope differences in (552a) and (552b):

(552) a. Siimiyuuryŭŭtyánníi.
sa-jimiy-muuy-rŭŭy-tány-níi
3SG-eat-COMPLT-POT-CAUS-3SG

b. Siimityánimyuuryŭŭyíi.
sa-jimiy-tány-muuy-rŭŭy-níi
3SG-eat-CAUS-COMPLT-POT-3SG

'He wants to make him eat everything'.
OR: 'He wants him to finish eating'.

When there are clear differences in scope interpretation, aspectual suffixes to the right of -rŭŭy have wider scope, as in (553). -Rŭŭy has scope over aspectual suffixes to its left, as in (554).

(553) Saquivŭŭchurŭŭmyuuyaa.
sa-quiivŭŭy-su-rŭŭy-muuy-maa
3SG-deceive-TRNS-POT-COMPLT-PERF
'He has stopped wanting to deceive'.

(554) Rachuutamuryŭŭrya.
ray-suuta-muuy-rŭŭy-râ
1SG-wash-COMPLT-POT-inan
'I want to stop washing it'.

However, scope differences are subtle on verbs with complex morphology. When two verb forms differ just in the order of two suffixes and both forms are acceptable, judgments as to differences in meaning of the verb forms may not be sharp. For example, the

language consultant has claimed that the following do not differ in meaning:

(555) a. Samaatyánimyuuryúmyaanií.
sa-maay-tániy-muuy-rúúy-maa-níí
3SG-sleep-CAUS-COMPLT-POT-PERF-3SG

b. Samaatyániryúmyuumaanií.
sa-maay-tániy-rúúy-muuy-maa-níí
3SG-sleep-CAUS-POT-COMPLT-PERF-3SG

Both: 'He stops wanting to make him sleep'.

Although the correspondence between the morphemes and meaning of the sentence is not entirely clear to me in (556), it is clearly a good sentence. This shows that -rúúy may occur more than once in a given verb form.

(556) Siimiiryúútyánimyuuryúúfíí.
sa-jimiy-rúúy-tániy-muuy-rúúy-níí
3SG-eat-POT-CAUS-COMPLT-POT-3SG
'He wants him to finish eating quickly'.
OR: 'He_i thinks that he_i should finish making him eat everything.'

As in (552) and (556), -rúúy may precede or follow the causative -tániy, resulting in sometimes subtle meaning differences. Normally -tániy plus whatever suffixes occur to the right of it are attributed to the causer, whereas the action of the verb root and any suffixes which occur between the ROOT and before -tániy are attributed to the causee. Compare the following examples:

(557) Siimiyryúútyánimyuufíí
sa-jimiy-rúúy-tániy-muuy-níí
3SG-eat-POT-CAUS-COMPLT-3SG
'He finished making him want to eat'.

?Siimiyitániryúúmyuufíí.
sa-jimiy-tániy-rúúy-muuy-níí
3SG-eat-CAUS-POT-COMPLT-3SG

(558) Siimiyuutyániryúúfíí.
sa-jimiy-muuy-tániy-rúúy-níí
3SG-eat-COMPLT-CAUS-POT-3SG
'He wants to make him finish eating'.

*Siimiyiryúúmyuutyáffíí.
sa-jimiy-rúúy-muuy-tániy-níí
3SG-eat-POT-COMPLT-CAUS-3SG

(559) Sújnaaryúútyáffíí.
sa-júnaay-rúúy-tániy-níí
3SG-cry-POT-CAUS-3SG
'He makes him want to cry'.

Examples such as (560) are perfectly acceptable, suggesting that ROOT + -rúúy can form a complex stem. As discussed in Section 5.10, -su is quite restricted lexically. Almost without exception, it occurs immediately following the verb root.

(560) Rameeryúúchunii.
ray-maay-rúúy-su-níí
1SG-sleep-POT-TRNS-3SG
'I am making him/her want to sleep'.¹⁷

5.13. Conclusions regarding verbal morphology

The schema presented in (380) is admittedly unsatisfactory. Members of the morpho-semantic categories represented there do not always have a strict positional order with respect to members of other categories. Certain morphemes not represented in (380) are quite variable in possible positioning relative to other morphemes. I have noted restrictions on possible suffix co-occurrences, but as of yet these also do not seem very general. What are the principles

underlying verb composition in Yagua? I do not have a complete answer to this, but would like to suggest several partial answers.

First, although it is possible to have numerous suffixes on a particular verb, in natural discourse it is uncommon for more than four suffixes to occur together, with one of these likely being a tense formative which is clearly verb-final. Although this reduces interpretation problems, it still does not answer the question as to how the speaker knows what suffix combinations can occur and in what order.

Second, consider the inflectional - derivational distinction as it applies to the verb. Which, if any, of these verbal suffixes are inflectional? Some approaches would consider tense, mood, and/or aspect to be specified outside the verb since they have scope over the entire clause. (For example, they may be said to occur in an 'inflectional node' (INFL) which is the head of the clause, or in the 'clausal periphery' (Foley and Olson 1985).) If we understand inflectional morphology to be that which is governed by something elsewhere in the clause or syntactic phrase (S. Anderson 1982), then we can say that, depending on the language, inflectional processes spell tense out on the verb, with second position clitics, or by whatever the language-specific rules specify.

This approach may be reasonable for TENSE and perhaps MODAL and even some IMPERFECTIVITY suffixes in Yagua (though the extent to which the IMPERFECTIVITY suffixes themselves form a well-defined aspectual system deserves further investigation). It is not clear that this approach should be applied to BOUNDED and UNBOUNDED

MOVEMENT, ITERATIVITY, COMPLETIVE, and LOCATIONAL suffixes, even though some of these have considerable aspectual meanings. Semantically, use of many of these suffixes is more akin to compounding of verb roots or incorporation of directional adpositions or locatives. It is clear that some, if not all, of these Yagua suffixes are derived historically from other verb roots. This is characteristic of aspect morphemes. However, though the Yagua suffixes do have aspectual meanings, most of the suffixes are not (yet) very bleached. The aspect is more an 'inherent aspect', just as can be found in lexical verb roots. Yet use of these suffixes is not a canonical case of compounding either, given that the suffixes cannot occur alone as verb roots.

A further fact to consider is the variable positioning of the causative -tányi and the potential/optative -rúúy relative to most of these suffixes. Other suffixes such as the BOUNDED and UNBOUNDED MOVEMENT suffixes show some variation in position, also with (subtle) differences in scope. This suggests that we are dealing with more than traditional inflection which, as far as I know, is always very restrained as to the order or other morphological means (e.g. ablaut) by which it can be expressed. But given the productivity of possible combinations, predictable meanings, and changes in order and scope of suffixes, we are also dealing with something more than prototypical derivation. It is unlikely that all the possible combinations and orders would be stored as such in the lexicon. It looks more like syntax.¹⁸ Yet if we are forced (which I am not convinced we are) to make a binary choice between inflection and

derivation, the traditional notion of derivation perhaps best characterizes the resultant meaning and properties.

At this point the careful reader may be wondering why I have termed the transitivity-related morphology discussed in Section 5.10 'DERIVATIONAL' in the schema presented in (380), and thus differentiated it from other verbal morphology which is also not clearly inflectional. It is just that these are the most prototypically derivational formatives. Except for the suffix -ta, the highly DERIVATIONAL morphology is lexically restricted and a consistent meaning associated with each formative is not transparent (though this deserves further research). Some of the formatives may derive verbs from nouns. Further, all these formatives occur immediately after the verb root.

In sum, we may want to call all the verbal suffixes except for TENSE (and perhaps a few others) 'derivational'. Yet there is a clear difference between the transitivity-related DERIVATIONAL suffixes and the others. The former are highly lexically restricted. The others are productive except for combinations and co-occurrences which are probably ruled out by semantic criteria. The degree of productivity they evidence, the possible variation in order for some suffixes with attendant scope differences in interpretation, and the fact that some suffixes such as -rúúy and -yaa may occur more than once in a given verb, point to the need to explore the ways in which this type of derivational morphology is like syntax. At the very least, these properties argue strongly for a cyclical or level-oriented approach to verb formation. The general conception of the Yagua verb I would

like to propose is given in (561), where brackets indicate cyclic levels within the verb. -tániy and -rúiy particularly are not ordered relative to each other. When either of these suffixes occurs with any formatives other than TENSE and MODAL to the right, they condition a new level of structure which is relevant for purposes of semantic scope interpretation. When -tániy occurs, suffixes to its left and the ROOT are predicated of the causee, while -tániy and suffixes to its right are predicated of the causer (keeping in mind the tendency of IMPERFECTIVITY affixes to especially yield fuzzy readings). In (561) X represents any series of suffixes other than the -tániy, -rúiy, TENSE, and MODAL ones.

(561) [[[[ROOT]-DERIV]...X...](-tániy)(-rúiy)...X...]-TENSE

There is a processing/production constraint on (561), sharply limiting the actual number of suffixes that easily occur on any one verb form in natural discourse.¹⁹ Whether additional levels need to be posited for Yagua is a matter for further research.

A third factor which may allow for apparent complexity in the verb is what I term 'lexicalized suffix complexes'. Pawley and Sider (1977) have suggested that in spoken English discourse, there are processing and/or production constraints such that normally only one simple clause is 'planned' at a time. This partly constrains how much novel information can be put together at one time. One thing which allows greater apparent complexity in fluent speech is reliance on memorized (lexicalized) 'lexical units'. By 'lexical unit' they mean:

...a morpheme or other form-meaning pairing which is stored in the long-term memory of the speaker, and which can be retrieved during encoding as a whole or by automatic chaining, instead of being created out of independently retrieved form-meaning units. The concept corresponds only partly to 'lexical item' or 'lexeme' as these terms are usually conceived of. As well as morphemes, words and idioms, the class 'lexical unit' includes many conventionally constructed phrases, clauses, and even clause sequences which the speaker has committed to memory.

In my own speech, lexicalized sentence frames include such things as 'How did your day at go?' This lexicalized sentence frame is pretty much retrieved as a whole, into which one novel piece of information is normally inserted at a time. The sentence may appear to have a greater degree information combined in a novel way than is actually there.

Something similar may be operative in Yagua verb formation. As evidence of this, there are strong production tendencies for certain affixes or clitics to co-occur, including -jayaa-sara CONTINUATIVE-HABITUAL = 'to do all of one's life'; -muumyaa COMPLETIVE:PERFECT = 'have finished doing'; and -nuúyanu IMPERFECTIVE:PAST3 'used to do long ago'. As mentioned earlier, some speakers prefer not to have -muuy without -maa. These combinations and the relative ordering of their isolable subparts may be lexicalized. All possible combinations of verbal suffixes, however, are not lexicalized. A lexicalized suffix and clitic complex can be combined as a single unit with other suffixes, resulting in the appearance of more complex verb forms. As such lexicalized suffix and clitic complexes occur time after time, there may be an increasing tendency for the subparts to occur contiguously, even when other

suffixes of a theoretically separate 'position class' should be allowed to intervene.

With regard to co-occurrence, restrictions on suffix combinations may be largely semantic (except for the DERIVATIONAL category). This does not at first glance answer everything about combination restrictions. For example, why should the habitual -sara not be able to co-occur with the distant past tense -janu/-jada? The answer here is that from an analytical point of view, the semantic meaning of a form must be partly determined by what it can and cannot combine with. Since the habitual cannot occur with any tense formative, it suggests that of its meaning is 'timelessness' or 'throughout all (of one's life) time'. In other words, apparent idiosyncracies in combination possibilities may reveal the analyst's lack of understanding of the emic meaning associated with a form. Nevertheless, as with prototypically derivational morphology, we may assume some things are simply idiosyncratic, regardless of what one might have predicted to be possible on the basis of what appears to 'make sense' semantically.

NOTES TO CHAPTER 5

¹ The co-referential clitics jíy- and -yù are also employed in indirect discourse complements, which are not nominalized. In indirect discourse complements tense can be marked independently from that of the main predication (Section 2.11.6).

² Although some iterativity formatives may have aspectual meanings and may be fairly productive, they may still form lexicalized stems with verb roots. I have no clear examples of MOVEMENT and IMPERFECTIVITY morphology occurring in nominalized forms, and none surface in the Powlison concordance. This is quite striking given that nominalizations with -jada/-janu are frequent in text.

³ S_o clauses are an exception. The intransitive subject ('S' in Dixon's 1979 terms) is in an overt object form, and thus may occur at the end of the clause (Section 2.1.2).

⁴ Foley and Olson also hypothesize that there is a difference in scope between core versus nuclear operators. Nuclear operators are aspectual inflections, whereas core operators may be such things as manner adverbials, at least in English.

⁵ Causees can control the index of jíy- and -yù, even though they appear in a surface object form. See example (543) where Anita is preceded by the Set II clitic -níí, but the index of jíy- is construed as coreferential with Anita.

⁶ Constituent command (c-command) is defined as: 'X c-commands Y if and only if the first branching node dominating X dominates Y, and X does not dominate Y, nor Y, X' (cf. Radford 1981:314). The notions of government and c-command are commonly invoked to account for reference restrictions on anaphoric devices such as jíy and -yù. I will not pursue this line of analysis here, as my purpose is simply to discuss whether or not positing a structural VP containing the object will help to account for the asymmetry in what can control the index of jíy- and -yù.

⁷ T. Payne (1985) argues that pragmatic factors alone will suffice. I believe a combination of pragmatic and syntactic factors must be acknowledged. Clearly the difference between Set I arguments and objects is (in part) syntactic. Second, there are sentences where two possible interpretations exist, and others where only one possible interpretation exists. The difference probably lies in the fact that when there is only one possible reading, pragmatic and syntactic factors converge on a single antecedent. But when there are two readings, pragmatic and syntactic factors favor different antecedents. Third, in the text presented in Appendix III, I suggest that non-use of a coreferential clitic in one clause where there are coreferential referents may have to do with embedding of a possessor

inside a postpositional phrase. Consequently, the possessor may be 'too far down' in the structure to control the index of a coreferential clitic.

⁸ It is actually too simplistic to think of their being a binary distinction between 'transitive' verbs which are subcategorized for objects, versus 'intransitive' verbs which are not, or even a three-way distinction between 'intransitive', 'transitive', and 'ditransitive' verbs. In Doris Payne (1985a) I show that there are a minimum of nine lexical subcategorization types attested for Yagua verbs, and there are more subtleties to be accounted for than what I have argued for there. But it may be that languages give extra coding or in some other way underscore a most basic distinction between verbs which can take one, versus two (or possibly three) arguments. For example, many languages, Yagua included, have only two (and sometimes three) sets of formatives for encoding direct (subcategorized and selectionally restricted) arguments of the verb, either in terms of verbal cross-referencing or case formatives on noun phrases. Regardless of the plethora of subcategorization possibilities which may be evidenced in other ways, any given verb root or stem must somehow fit within that basic level of subcategorization possibilities which is related to the existence of just those two sets of argument encoding possibilities.

⁹ The distant past formative -jamu/-jada is isomorphic with the infinitival/participial nominalizer -jamu/-jada.

¹⁰ Although the more surface form of (466) is written with a short vowel at the point corresponding to -numaa - which is how I heard it - distinguishing vowel length has been a notorious problem.

¹¹ Sufficient information is not available to determine with certainty that -niyaa positionally belongs with the other ITERATIVE morphemes. Given its semantic parallelism, however, I assume so.

¹² Comitative obliques which encode animate participants are often marked by the postposition -jisa, rather than -ta. However, animate comitative participants may be referred to in -ta oblique phrases. The conditions under which -ta rather than -jisa is used for 'comitative' remain unstudied.

¹³ As an alternative to the two -ta hypothesis, one might wish to posit a 'derivational' analysis for the idiosyncratic cases of -ta and a 'transformational' analysis for those cases where the meaning is totally predictable. In the transformational analysis, -ta as a verbal suffix would be derived from clauses in which it occurs as an instrumental/comitative postposition on a noun phrase. Even if one should wish to pursue this, within traditional analyses the transformational -ta would still have to be considered derivational when it comes to putting syntax and word formation together. First, -ta occurs exactly where other highly derivational morphology does, between the verb root and other morphology which is also best taken

as derivational (such as the LOCATION, MOVEMENT, ITERATIVITY, and other formatives). It does not occur towards the periphery of the verb where we usually expect inflectional morphology to occur. Second, we might expect that transformationally induced morphology at the very least should occur farther from the root than non-transformationally induced derivational morphology - if the reverse were the case we would have to be arguing for transformational derivation in the lexicon, something akin to transformational derivation of the city's destruction from (someone) destroyed the city. However, it is not clear that one would want to argue that the LOCATION, MOVEMENT, and PERFECTIVITY formatives are transformationally motivated, and these can only follow -ta. One reason for positing a transformational account is based on a reductionist philosophy: When meanings are the same, they must come from the same structure at some underlying level, particularly if the relationship seems to be productive and the meanings predictable. (But from a discourse perspective the two structures as represented by pairs like (501a) and (b) do not have the same 'meaning'. Choice of -ta in the verb in cases like (501b) is probably based on discourse contexts where the semantic instrument is given, definite, and highly thematic or 'in perspective' (Fillmore 1977).) Even though certain morphology may be productive and predictable in meaning, these are not sufficient criteria to say that the formative in question is not derivational (see Chapter 4 and S. Anderson 1982). This is not to deny that word forms are not related in the lexicon. Tiryoo 'lie down' and tiryoota 'lie down with' are just as much related as junúy 'look' and junútya 'observe closely' or 'take care of'.

14 Muysken (1981:306) notes that in Quechua verb formation, the interaction of aspectual formatives with the causative formative also provides difficulties for a strictly cyclical approach to semantic interpretation of the resultant form.

15 I thank Tom Payne for original elicitation and helpful discussion of much of the data in this section.

16 The preverbal modal vánay 'possibility' can be used just to indicate the potential (ability to) mood:

Néé vánay ranicyee.
 ray-nicyee
 NEG able 1SG-talk
 'I can't talk / I am not able to talk'.
 *'I don't want to talk'.

17 As additional evidence that -maaryúy is a complex stem, our language consultant translated this with one word desvelar 'to keep vigil' or 'to stay awake'. Perhaps the idea is that I am making the causee want to sleep by virtue of not letting him or her sleep.

¹⁸ Marantz (1985) suggests that causative formation in numerous languages, including strictly morphological causation, is the result of 'morphological merger' of underlyingly distinct syntactic elements. This general approach has long been espoused by scholars of Eskimo languages, and has promise for the Yagua data. However, morphological causation should be differentiated in a principled way from analytical causation, particularly when both occur in the same language, such that one, but not the other, undergoes morphological merger. It is also not clear to me the extent to which this sort of analysis should be extended to all categories of possible 'higher predicates', without recreating Generative Semantics: in Yagua verb formation, the potential/optative -rúny and other suffixes also show variable positioning and attendant scope difference.

¹⁹ A similar principle could not be motivated for all languages. The Preandine Arawakan languages, for example, seem to allow a much greater number of suffixes than Yagua. I have not, however, seen any data on the mean/median number of suffixes occurring on verbs in actual natural discourse.

Chapter 6: Pragmatic Factors Motivating Order Variation

In Chapters 2 through 5 I have discussed major morphosyntactic phenomena within clauses and constituents of clauses. In this chapter I consider pragmatic phenomena as they correlate with variations in structure and order.

Largely following Dooley (1982), I define pragmatic structure as the organization of a linguistic unit (e.g. a clause or sentence) as it indicates how the speaker intends the hearer to relate the unit, or parts of the unit, to the context. Context includes the previous portion of the discourse, 'prior texts' shared by the speaker and hearer (Becker 1979:244), cultural knowledge, deictically-given information, and also the projected development of the discourse insofar as the speaker can anticipate or plan for this. Motivations for choosing certain pragmatic and morphosyntactic structurings depend on what the speaker assumes is the current cognitive status of information in the mind of the hearer and how the speaker wishes to modify or manipulate that. To give one example, based on contextually given information the speaker may assume that the hearer holds a certain proposition $f(x)$ to be the case. The speaker may choose a construction which conveys single focus contrast (Section 6.4.1) in an effort to get the hearer to substitute the information y for x in the remainder of the proposition f .¹

In the course of this chapter I will discuss some aspects of Yagua narrative discourse as they relate to pragmatic structuring, though I will not pursue a complete investigation here. Section 6.1 briefly presents the major features of unmarked pragmatic structure in the clause. However, my primary purpose is to investigate pragmatic factors which motivate constituent order variation. The allowable variations in syntactic order and the pragmatic conditions under which these occur suggest that there is a marked pragmatic structure option for the (nuclear) predication (Sections 6.2 through 6.5). This consists of one preverbal constituent of any syntactic role plus the 'remainder' of the predication. The 'remainder' is possibly followed by, or interrupted by, an echo of the preverbal constituent. Section 6.6 discusses the frequency distribution of syntactic constituent orders and aspects of overt noun phrase versus clitic reference to participants. The specifiable pragmatic conditions under which constituents occur in preverbal position, plus the frequency data, together argue that verb initial order is basic. Section 6.7 discusses pragmatic and some syntactic factors accounting for relative ordering of object and oblique (including postpositional) phrases.

6.1. General pragmatic structure of Yagua clauses

In pragmatic terms, Yagua clauses (or sentences) can have Connective, Delimiting, Nuclear, and Clarification components. The Nuclear component or predication is essentially the verb, its direct (selectionally restricted or subcategorized) and oblique (i.e.,

non-direct) arguments, and certain aspectual and modal operators which have scope over the verb plus its arguments.

Connectives are elements such as conjunctions or sequence phrases which tie the predication in with the preceding context. Delimiting components limit the applicability of the nuclear predication to some restricted area in the addressee's referential field (Dooley 1982:310; cf. also Chafe 1976:50 on 'topic'). Unlike nuclear arguments, a non-nuclear delimiting element is not necessarily related to the nucleus by the semantic case or subcategorization frame of the verb.² Clarification includes phrases which further specify the identity of, or further delimit, some element of the nucleus. In (563d) below, for example, the clarification phrase jjiryoonu rávaa 'bushmaster's poison' further specifies the identity of the possessor previously indicated just with the third person singular Set I clitic sa- in sa-rávaa 'his poison'.³

Whenever two or more pragmatic components occur in a sentence, pragmatic function and semantic scope group the components into some type of constituent structure (Dooley 1982:308). The overall pragmatic structuring of Yagua clauses can be diagrammed as in (562). The non-nuclear delimiting component can consist of a phrase such as a locative or time expression, or a conditional or adverbial clause which has a delimiting function relative to the nuclear predication.

(562) [Connective [Non-Nuclear Delimiting
[Nucleus] Clarification] Connective']

Clause (d) of (563) illustrates all except the non-nuclear delimiting component. The connective element rámútiy 'therefore' logically refers back to the situation expressed in (563a) and (563c) in which a careless child made the bushmaster spill his poison, thus explaining how there came to be other poisonous, biting, and stinging animals in the jungle. The last connective' element váriy in (563d) is more sequential in function than rámútiy (which indicates a logical relation). Váriy indicates how the expression in (563d) relates in terms of temporal progression to what preceded in (563c). Muchojimyyi Bacheenu 'musmuqui-eaten ones orphan' (i.e. the orphan of the one eaten by the musmuqui monkey) is a proper name.

- (563) a. Níiniy Muchojimyyi Bacheenu rafiiy jarúpandooda.
 níi-niy mucho-jimyyi jarúpanu-jada
 3SG-NIY musmuqui-eaten orphan MALE ruin-PAST3
 'He_i, the Musmuqui-eaten-ones-orphan_i ruined
 (everything).
- b. ríjínúúrya
 ray-jínúúy-rá
 1SG-observe-INAN
 'I see it
- c. níitiy rumityádeeda jíiryoomúra jíryávaḡa.
 níi-tiy rumiy-tániy-jada jíiryoomú-rá jíy-rávaḡa
 3SG-TIY spill-CAUS-PAST3 bushmaster-INAN COR-poison
 'that he_i made the bushmaster_j spill his_j poison.
- d. [CONNECTIVE
 Rámútiy
 'Therefore
- [[[. NUCLEUS]
 ripyuútyaḡa jaḡyanúmiy rámu sarávaḡa
 riy-puútya-jada jaḡyanú-miy rá-mu sa-rávaḡa
 3PL-paint:poison-PAST3 fer:de:lance-PL INAN-LOC 3SG-poison
 'the fer-de-lances_k painted there his_j poison,

. CLARIFICATION .] CONNECTIVE']]
 jiiryoomu rãvãã váriy
 bushmaster poison then
 the bushmaster's_j poison, then.' (LX048)

The initial connective and the non-nuclear delimiting component rarely co-occur in naturally occurring discourse. The following example (the same as (40) of Chapter 2) illustrates a time phrase in delimiting function. Locative delimiting phrases also occur.

(564) [. . . NON-NUCLEAR DELIMITING . [. NUCLEUS]]
 Tĩĩquii járimyuni-sãará-jũ sa-tiryõõ-ta-jayãã-rã
 one:ANIM:SG month-extent:of-AL 3SG-lie:down-INST-ITER-INAN
 'For a whole month he was laid up (in bed) with it'. (KT005)

The following example (the same as (25) of Chapter 2) illustrates a delimiting element coreferential with the nuclear subject. Delimiting elements coreferential with nuclear objects and obliques also occur.

(565) [. . . . NON-NUCLEAR DELIMITING
 Nũcõvããfu sũũjyo sããdãsisifiy,
 sũũy-jo sa-jãdãsiy-niy
 wasp bite-CL:place 3SG-knee-in
 [. . . . NUCLEUS]
 jããmu-ra rá-poo.
 big-CL:NEUT INAN-swell:up

'The wasp bite in his knee, it swelled up big'. (KT004)

Within the nucleus it is possible to have marked or unmarked pragmatic structuring. In pragmatically unmarked predications Verb-(Subject)-(Object) syntactic role order is employed (though there is potential variation in relative order of direct and oblique objects; Section 6.7). This is illustrated in the nuclear portion of (563d) above, and will be argued for in Sections 6.2 and 6.6.⁴

6.2. The pragmatically marked nucleus

For Yagua I define 'subject' as the confluence of 'S' and 'A' in the sense of Dixon (1979), and 'object' as Dixon's 'O' (see discussion in Section 2.1 of Chapter 2). In transitive clauses, the orders VAO, AVO, OVA, and Oblique-VAO can occur when full noun phrases are used. When obliques occur postverbally, they may either precede or follow the direct object (this is explored further in Section 6.7). In intransitive clauses, SV-Oblique and Oblique-VS orders can occur when full noun phrases are used. In both transitive and intransitive clauses, elements of noun phrases may occur preverbally, discontinuous from the rest of their postverbal constituent. This section and Sections 6.3 and 6.4 are an attempt to discover the conditions and factors motivating these different syntactic orders.

I start with the assumption that there is a pragmatic difference between (1) making an assertion (either containing all new information or a mixture of given and new information) where the predicate is part of the assertion, versus (2) correcting, adding or filling in missing information, or simply restating information, where the major portion of the predication (usually including the predicate) is already presupposed and is not asserted. I suggest that the basic difference between these two types of predications is one of basic or 'neutral' versus 'non-neutral' pragmatic force relative to the speaker's intent to manipulate the information store of the hearer. In the non-neutral situation, the speaker takes more for granted in terms of what the hearer holds to be true (or at least

will accept without challenging), and the speaker takes pains to modify in some specific way what the hearer (supposedly) takes for granted. At the very least, (1) is much more frequent than (2) in Yagua narrative discourse. Presumably the statistical difference correlates with a difference in the degree to which one is a more neutral or basic communicative function.

A second major type of markedness involves semantic operations. Here I will simply claim (and not further justify) that negation is semantically more marked than positive assertion. Additionally, heightening the degree of an expressed quality is a more marked semantic operation than simply expressing that quality. In Yagua, neutral predications of either the pragmatic or semantic variety occur overwhelmingly with V(A)(O) or V(S) orders, while non-neutral ones are found to occur with alternative orders. Substantiating statistics will be presented in Section 6.5 below.

Before identifying the specific pragmatic and semantic conditions which correlate with non-verb-initial orders, I will present a general overview of what I conclude is the marked pragmatic nuclear structure. This consists of a 'pragmatically marked' (PM) component followed by the 'remainder' (RM) of the nucleus. The pragmatically marked component may be echoed in a final PM' component which follows, or perhaps very occasionally interrupts, the remainder of the nucleus. The echo is generally limited to one or two words. Very, very rarely the PM' component may occur without the PM component. This echo is characteristic of information questions but also occurs in other pragmatically marked situations. Though

'characteristic,' it is not clear to me how well the echo is integrated into the syntactic structure of the clause. Order and constituency within the marked pragmatic nucleus is represented in (566).

(566)

[Pragmatically	[Remainder]	Pragmatically]
	Marked				Marked	
	Component				Echo	

As might be suggested by the bracketing in both (562) and (566), the pragmatic constituent structure closely parallels the syntactic structure posited in (42) of Chapter 2, which describes order and constituency when full noun phrases (or free pronouns) are used. Such parallelism should not be surprising, as syntactic structure is in part the result of grammaticization (over time) of semantic scope and pragmatic function relations. That is, as the number of tokens evidencing a particular pragmatic function or semantic scope relation increases in naturally occurring discourse, such a recurring relation or pattern provides one type of pressure towards actual grammaticization of a syntactic configuration paralleling the semantic or pragmatic configuration.

In the following example, clause (b) illustrates the pragmatically marked nuclear structure:

(567) a. Sanicyee "tɔcá, tɔcá, tɔcá."
 Sa-nicyee tɔcá, tɔcá, tɔcá
 3SG-speak

b. [. . . . PM [. . RM . .] PM']
 Jápiichifumaatée sanicyeetée, jápiichifumaatée.
 jápiichiy-numaa-tée sa-nicyee-tée, jápiichiy-numaa-tée
 frequently-now-EMPH 3SG-speak-EMPH frequently-now-EMPH

'(a) He said "tqá, tqá, tqá." (b) Frequently he spoke, frequently'. (KT086-087)

When arguments which are subcategorized or selectionally restricted by the case frame of the verb occur in the PM position, they are not resumptively referenced by Set I and Set II clitics (see also Section 2.1.1):

(568) [. PM . [. . . . RM]]
 Rícyaa raa junúúdyiiy.
 ray-a junúuy-diiy
 trap 1SG-IRR see-PRIORATIVE
 'The trap, I'm going to see first'.⁵

There are nine or more specific pragmatic and semantic conditions which correlate with preverbal placement of some constituent of the nuclear predication. These are illustrated in Sections 6.4.1 through 6.4.7. Though different conditions can be identified, the fact that they all correlate with encoding of information in preverbal position, and the fact that all syntactic roles (subject, object, and oblique) are found there, suggests that what is emic to the Yagua system may be simply the 'pragmatically marked' status of the predication or of the information encoded in preverbal position. The more specific conditions that can be identified are in a sense 'etic', at least with regard to order. Emicization just of 'pragmatically marked' status in grammar is not universal. In other languages (cf. Watters 1979 on Aghem) different

6.4. Pragmatic functions of the PM component

The Pragmatically Marked (PM) component may encode a subject, an object, a postpositional or other oblique phrase, an adverb, or a modifier which is discontinuous from the rest of its postverbal noun or adpositional phrase. Phrases in the PM position generally contain given and/or definite information. However, new information can be introduced into the discourse in preverbal position if it is simultaneously in one of the following pragmatically or semantically marked relations: single focus contrast, multiple (usually double) focus contrast, counter expectation, restatement, added detail restatement, questions and answers to information questions, a threat, an assertion which is counter to cultural or situational expectations, negation of the constituent, heightened degree of the quality expressed by a constituent, and perhaps other non-neutral communicative intents.

There has been some discussion in the literature as to whether languages with 'flat' syntactic structure easily allow discontinuous constituents (Hale 1982). As just mentioned, discontinuous subconstituents of noun and postpositional phrases may occur in the pragmatically marked (PM) position, separated from the rest of their noun phrase as in examples (580), (590), (594), and (598). This is not particularly frequent in discourse given that it occurs only under pragmatically or semantically marked conditions. I know of no other conditions under which elements of noun or postpositional phrases may be discontinuous from the rest of their phrase. (Paratactic clarificatory phrases which come at the end of a clause

are probably best viewed as completely separate syntactic constituents from the phrase they clarify.)

6.4.1. Single focus contrast and other single focus subtypes

Contrast has been defined by Chafe (1976) as a situation where (a) there is some propositional 'background knowledge' in the hearer's mind but some item of information is missing or incorrectly assumed in that proposition, (b) there is a limited set of possibilities in the addressee's mind as to candidates which could supply the missing information, and (c) the speaker asserts which candidate is the correct one. It is possible that the speaker assumes the hearer has the wrong candidate in mind, and he wishes to correct this misunderstanding. Communicative situations meeting these three criteria are generally termed 'single focus contrast' situations.⁸ Dik, et al. (1981) make a finer distinction between replacing focus, which corrects an incorrectly assumed piece of information, and selective and restricting focus which do not correct information. Selective focus selects one item from among a presupposed set of possible candidates, as in: Presupposed background assumption: Tomás bought rice or beans; selective focus assertion: Tomás bought RICE. Restrictive focus, on the other hand restricts an antecedently given presupposed set to one or more correct values, as in: Presupposed background assumption: Tomás bought rice, beans, and tortillas; restrictive focus assertion: Tomás bought (just) rice and beans. There may be other single focus subtypes as well. In Yagua, candidates in replacive, selective, or restrictive focus are all

encoded in the PM position. In actual communication, the presupposed background assumption need not be stated overtly in the discourse. The assumption may be cognitively built up out of several previous overt propositions, or may be assumed on the basis of general cultural knowledge and expectations. It is also possible that (part of) the remainder of the proposition may be left implicit in the context.

The following section of text is taken from a tale of Mocayu and two wasp twins. The twins try unsuccessfully to outsmart Mocayu. In this particular incident the group has come upon a snake and the two parties are jockeying as to who will kill it. (From here on I use parentheses to indicate different constituents in the pragmatic structure. The parentheses are not meant to indicate hierarchical scope relations. Pragmatic structuring will not be indicated in pragmatically unmarked clauses.)

- (570) a. Sųtay jįįta núcqvaafńú
 sa-juřay núcqvaafńú
 3SG-say JIITA wasp
 'The wasp said,
- b. (. . . PM . . .) (. RM)
 "Née! Naay jįį rą jaachifńń.
 jaachiy-ńń
 No 1DLEXCL JIITA IRR spear-3SG
 "No! We will spear him (the snake).
- c. Tama tįį jaachityąąta
 jaachiy-tąą-ta
 never anyone spear(verb)-NMLZR:INST-NEG
 Never have I seen anyone speared with
- rafiy jumńurya jiryuvée. 'Jo.'"
 ray-niy jumńuy-rą jiy-ruvée
 1SG-MALF see-INAN 2SG-spear yes
 your spear."

- d. Saniy jaachiy j̄j̄i siimú. 'Ti!
 sa-niy jaachiy sa-imu
 3SG-MALF spear JIITA 3SG-LOC nothing
 He speared at it. Nothing!
- e. Pariché sasííryj̄j̄i Mocáyu.
 sa-sííy-r̄j̄j̄i
 finally 3SG-run-enroute Mocáyu
 Finally Mocayu came running.
- f. (. . . PM . . .) (. RM)
 "Ráy j̄j̄i r̄a jaachiffíí, rá!"
 jaachiy-níí
 I JIITA IRR spear-3SG MODAL
 "I will spear him!" (KT058-065)

In this excerpt clauses (b) and (f) both encode single focus contrast, employing otherwise unneeded free pronouns in the PM position. The background assumption shared by both parties in these single focus contrast situations is that someone will spear the snake. The set of possible candidates consists of the wasp twins (it is unimportant which wasp twin will throw the spear) and Mocayu. In clause (b) the wasp asserts that the correct candidate is 'us', and in clause (f) Mocayu asserts that the correct candidate is himself. The clitic j̄j̄i in clauses (b) and (f) communicatively underlines the marked pragmatic structure. In both cases j̄j̄i occurs in quoted material, making a 'progression' analysis of its function in these clauses unlikely (cf. Section 2.4.3). Use of j̄j̄ita and j̄j̄i in clauses (a) and (d) does mark progression from one event to another. (Clause (e) is possibly presentative in function, rather than indicating an event per se.)

In (570b) and (f), subjects occur in preverbal position. However, all syntactic roles may occur preverbally. An oblique occurs before the verb in (571b). This example comes from a text describing

how two groups made peace following a time of warfare. One group has approached the offended party asking to be friends since the population of the groups is declining. The offended party replies:

(571) a. (. . PM . .) (. RM)
 Jiryefliy rafiyy jjoqtára jjuvaanu.
 jiryey-niy jjoqta-rà jjuvay-janu
 2PL-NIY MALF begin-INAN fight-INF
 'You began the fighting.'

b. (. . . . PM) (. . . . RM)
 Nnúdyimustya rájjoqtaday.
 núúdyá-imu-siy-ta rá-jjoqta-day
 1PLEXCL-LOC-AB-NEG INAN-begin-DAY
 Not from us it began'. (DAVX025-026; CAH)

Prior to (571) there is clearly a presupposition that fighting has been going on. In (571a) the offended party takes it for granted that the hearer shares (or at least will accept) the presupposition that someone began the fighting. The shared set of possible candidates includes jiryey 'you' and núúdyá 'us (exclusive)'. The speaker makes the assertion that the correct candidate is 'you', encoding this information as subject. In (571b) the same presuppositional conditions exist, only núúdyá 'us' is removed from the presuppositional predication and is specifically contrasted with jiryey 'you'.

The excerpt in (572) is also an instance of single focus contrast. When the David and his group are approached by the arriving group of Indians, David is wary that they might be coming to fight. He is not prepared to listen to them. However, the intent of the arriving group is to help David and his group rebuild their homes and replant their gardens. In (572) a member of the arriving group

speaks. In clause (d) a non-referential oblique occurs in the PM position. The speaker both negates it (to remove it from the proposition which David holds to be true), and contrasts it with the preverbal direct object in (e). In (e) the speaker asserts the correct information relative to the proposition of 'coming'. The direct object in (e) is a semantic instrumental/comitative.

- (572) a. Néé yāā jūvay núúy!
 NEG 1SG:IRR fight 1PLEXCL
 'Don't kill us!
- b. Yāā musanu jeerya jiryuvee.
 yi-ā jiy-ruvee
 2SG-IRR lower also 2SG-lance
 'Lower your lance!
- c. Néé múúvyāātára jūveenuday.
 múúy-vāāta-rā jūvay-janu-day
 NEG 1PLEXCL-want-INAN fight-INF-DAY
 'We don't want fighting'.
- d. (. . . . PM) (. . . RM . . .)
 Néé jūveennaachōō núúfiinidyey.
 jūvay-janu-naachōō múúdyā-jīniy-day
 NEG fight-INF-towards 1PLEXCL-come-DAY
 'Not (looking) for a fight we come'.
- e. (. PM .) (. RM)
 Juváadyi núúfiitya jiryíimuday.
 múúdyā-jīniy-ta jiryey-ímu-day
 effects 1PLEXCL-come-INST 2PL-LOC-DAY
 'Effects (i.e. machetes, hatchets, knives) we come with
 (bring) to you'. (DAV137-138)

If jinitya 'come with' is considered a substantially different predicate from jiniy 'come', then (572d, e) might be considered a case of double focus contrast (Section 6.4.2). However, what is pragmatically contrastive in the context is 'a fight' as opposed to 'effects', not the pairing of 'a fight' and 'coming', versus the pairing of 'effects' and 'coming with'.

6.4.2. Multiple foci of contrast

When the speaker wishes to assert a correct match-up between two or more pairs of items, there are multiple foci of contrast (Chafe 1976).⁹ Dik, et al. (1981) use the term parallel focus for this situation. Although Chafe does not explicitly say so (and in fact might be interpreted as saying the opposite), in many cases of multiple foci of contrast a background assumption is not as clearly present as in single focus contrast. Rather, the multiple foci construction may do double duty by both asserting a correct match-up between pairs of items, and asserting two or more events or situations. The situations are not necessarily taken as presupposed. They may still be contrastive, however, in the sense that one pairing is opposed to or contrasted with the other pairing. In the example Her HUSBAND stayed home to BABYSIT, and SHE went to WORK, one pair of items consists of the set {her HUSBAND, SHE} and the other pair is the set {stayed home to BABYSIT, went to WORK}. As with single focus contrast, parts of the multiple foci assertion may be implicit in the context. In Yagua multiple foci of contrast (usually double focus contrast) is expressed by encoding one or both members of a pair of contrasted items in the FM position.

In (573) Mocáyu and the wasp twins are making shelters against the rain which comes during the night. Clauses (573c) and (573d) express double focus contrast. By the time clauses (c) and (d) are said, there is a clear presupposition that the wasp twins and Mocéyu have made shelters. This is asserted in (a) and (b).

- (573) a. Naadasūtay jīta nūcovaafujūy yājījūday.
naada-sūtay nūcovaafu-jūy jiy-ajījū-day
3DL-make:shelter JIITA wasp-DL COR-place:at-DAY
'The two wasps made a shelter for themselves.
- b. Sasūtay jīta nuuntidyéy, Mocáyuday.
sa-sūtay nuu-ntiy-day
3SG-make:shelter JIITA other-REP-DAY Mocáyu-DAY
The other one also made shelter, Mocayu.
- c. (. . . PM . . .) (. RM)
Náviita sasūtadyey
návi-ta sa-sūtay-day
leaves-INST 3SG-make:shelter-DAY
With leaves he made shelter,
- d. (. . . PM . . .) (. RM)
Múcadíita naadasūtadyey.
múcadí-ta naada-sūtay-day
mud-INST 3DL-make:shelter-DAY
with mud they:two made shelter'. (KT027-030)

In clauses (c) and (d) the instrumental phrases 'with leaves' and 'with mud' occur in the PM position. These two items are crucial pieces of information for the action which will take place when the rain comes during the night. As any intelligent inhabitant of the jungle knows, leaves make an excellent shelter against rain but mud won't last a minute. During the night the rain comes and the wasp twins get a good soaking as their shelter disintegrates. 'With leaves' and 'with mud' form one pair of items to be contrasted. The other pair consists of Mocayu, referred to in (c) by the 3rd person singular Set I clitic sa-, and the wasp children, referred to in (d) by the 3rd person dual Set I clitic naada-.

Example (574b) illustrates double focus contrast with an object noun phrase in preverbal position. Though the complement phrase batyevyey 'be:killed ones' is negated in clause (a), preverbal positioning of complements of 'be' and 'remain' verbs is the normal

order (Section 2.1.4). Thus, it cannot be clearly argued that negation motivates preverbal position of batyevyey in this case.

(574) a. Néé batyevyey rinyechqoqjanuday.
 batyey-vay riy-machqoq-janu-day
 NEG be:killed-CL:ANIM:PL 3PL-remain-PAST3-DAY
 'Not killed ones they_i (the people of David) remained.'

b. (. FM .) (. . . . RM)
 Rídyey, mununúmiy ricyáásiiyanntiy.
 riy-day riy-cáásiiy-janu-ntiy
 3PL-DAY mununúmiy 3PL-finish-PAST3-REP
 'They_j, the savages_j they_i (the people of David)
 finished off'. (DAV109-110)

6.4.3. Questions and answers to information questions

A third situation in which constituents occur in the FM position concerns information questions and answers to information questions. Dik (1978:93) says that in an information question the questioned constituent is in 'focus', and that in the answer the constituent that provides the requested information is in 'focus'. It is precisely these constituents that are fronted in Yagua information questions. Answers to information questions share the same three parts that canonical single focus contrast situations do: (a) there is a background assumption with some piece of information missing, (b) existence of a set of candidates to supply that information is (normally) assumed, and (c) an assertion is made as to who is the correct candidate. Dik, et al. (1981) term answers to information questions *completive focus* but do not regard them as a type of

- (576) a. (. . . PM . . .) (. RM)
 "Nútyara musiy sadíyanu rajyéébyey?"
 sa-díiy-janu ray-jááy-bay
 how from 3SG-die-PAST3 1SG-father-deceased
 "From what did my father die?"
- b. (. . . PM . . .) (. RM)
 "Jiryu jacha sajúyyadájuu."
 sa-júyy-jada-júu
 trunk upon 3SG-fall-PAST3-JUÚ
 "On a tree stump he fell (of course)". (LX009)
- (577) a. (. PM) (. RM) (. . . PM' . . .)
 "Nútyara musiy síteenú sadíyanutay nútyara musiy
 sa-díiy-janu-tay
 how from really 3SG-die-PAST3-EMPH? how from
 "From what, really now, did he die, from what?"
- b. Radyéétyaadáju ríitatyéécú."
 ray-dáátya-jada-jú ray-jítay-tée-cú
 1SG-know-INF-AL 1SG-say-EMPH-CU
 For my knowing, I say (ask)."
- c. (. . . FM . . .) (. RM)
 "Néé jíiryoonu súyyannííjuu.
 súyy-janu-níí-júu
 no bushmaster bite-PAST3-3SG-JUÚ
 "The bushmaster bit him (of course)."¹⁰ (LX022-023)

In yes/no questions, the C second position clitic -viy can occur. It follows any preverbal constituent that is being questioned. (Not all yes/no questions have preverbal constituents; Section 2.8.1.) In (578) it is presupposed that the snake swallowed someone, and for the speaker the set of possible candidates must include jíy 'you'.

- (578) (. . . FM . . .) (. RM)
 Jífiviy saramuchoonu coodiy?
 jíy-niy-viy sa-ramuchu-janu
 2SG-NTY-QUEST 3SG-swallow-PAST3 snake
 'Are you the one the snake swallowed?' (MM138)

In (579) it may not be solidly presupposed that 'he is going to kill me', but the possibility that this might be the case is presupposed.

There is no set of referential candidates to fill in missing information here. However, the speaker assumes that there is a set of at least two truth values for the presupposition 'It is possible that he will kill me'. The set {true, false} presumably contains the missing confirming or disconfirming information requested by the speaker.

(579) (. . . PM . . .) (. RM)
 Sį́iteenuniviy sạạ múntee ráy?
 sį́iteenu-niy-viy sa-ạ múnú-tée
 true-NIY-QUEST 3SG-IRR kill-EMPH 1SG
 'Is it true that he's going to kill me?' (LX025)

The C second position clitic -dyéeta 'maybe' also has a questioning function. It follows preverbal constituents if such occur:

(580) (. PM .) (. RM)
 Ją́adyéeta sạátóosiy ją́ámura jıvyımúju.
 ją́a-dyéeta sa-jatu-jasıy jạamu-ra jıy-viımu-jú
 water-maybe 3SG-drink-PROX1 big-CL:NEUT COR-inside-AL
 'Water maybe he drank a lot (of it) inside (his stomach)'.
 (LAG042)

6.4.4. Restatement and added detail restatement

Restating previously mentioned information is one way of iconically giving added salience to that information or of particularly calling it the hearer's attention. Restatement is iconic in the sense that the greater amount of linguistic material used to encode a particular piece of information reflects the greater cognitive importance or salience of that information in the mind of the speaker. Alternatively, it may reflect the greater importance the speaker thinks that information should have for the hearer. In both

Yagua and Hixkaryana (Derbyshire 1985), restatement situations involve pre-verbal placement of elements which would otherwise occur in post-verbal position. Dooley (1982) also notes that restatement situations are a condition for marked pragmatic structuring in Brazilian Guarani. The exact circumstances under which restatement and added detail restatement occur in Yagua discourse are as yet unstudied. Derbyshire hypothesizes that in Hixkaryana they are associated with the end of an episode or other larger discourse unit.

Added detail restatement is not particularly contrastive in terms of the pragmatic force it carries to the hearer. However, it shares several component features with single focus contrast. First, there is some background assumption, generally overtly stated in the previous discourse. Second, the speaker judges that there is some piece of information missing in the background assumption, or further information which should amplify the background assumption. Third, there is an assertion of this missing or amplifying information. This is essentially what Dik, et al. (1981) term expanding focus, as in They were eating apples; green apples they were eating. Though couplets like this may seem unnatural (or perhaps poetic) in English, they are not unnatural in Yagua narrative discourse, including non-folkloric subgenres.¹¹

Simple restatement involves couplets such as They were eating fruit. Fruit they were eating. (Again, these may seem poetic in English.) Why simple restatement should also receive marked pragmatic structuring is not as clear. Here there is no expansion, restriction, or correction of an assumed proposition. However, we

might hypothesize that explicitly repeating an entire proposition which is already known or situationally expected is a communicatively marked event. In line with Haiman (1983), a basic communicative rule is: what is given or expected should be mentioned in the most attenuated manner possible, even to the point of complete ellipsis.¹² Part of the motivation for simple restatement may be to convey some added communicative importance associated with part of the assumed proposition which was not made evident in its initial assertion. We would expect this part of the restatement to be that which occurs in the PM position. Both restatement and added detail restatement can be made on the basis of information explicitly given in the text or inference from the context. If the restatement is based on an overtly asserted antecedent predication, the restatement and its antecedent need not be linearly contiguous.

The following example illustrates simple restatement in clause (b), based on clause (a). In (a) the free pronoun ráy 'I' breaks up what would otherwise be an unmarked predication.

(581) a. (. RM (PM'))
 Raamaa tãarya raasiquita ráy rumusidyey.
 ray-ã-maa ray-jasiquita rumu-siy-day
 1SG-IRR-PERF return 1SG-alone 1SG there-AB-DAY
 'I have to return alone, I, from there.

b. (. PM) (. RM)
 Raasiquitanumaa raã tãaryaday.
 ray-jasiquita-numaa ray-ã tãarya-day
 1SG-alone-now 1SG-IRR return-DAY
 Alone now I will return'. (IS113)

Clause (e) of the following example illustrates restatement with a syntactic object in the PM position. The restatement is made on the

basis of inference from what is given in preceding text. The speaker and his wife have gone to see if anything has been caught in their fish net during the night. He has found that there are several fish, and then he looks at what else there is. (Jiita is a dialect variant of jiita.)

- (582) a. Riinújésiy jiita múy sayanújũ.
 ray-jinúy-jásiy sa-yanu-jũ
 1SG-look-PROX1 JIITA there 3SG-beyond-AL
 'I looked there beyond him (the fish).
- b. Sapeay nurutú-súmaa.
 3SG-float alligator-big
 A big alligator was floating.
- c. Ráásáásiy jiita ravyátaraníi
 ray-jása-jásiy ray-vátara-níi
 1SG-signal-PROX1 JIITA 1SG-woman:without:children-3SG
 I signaled him to my wife,
- d. "Yaq múy nurutú.
 jiy-ə jumúy
 2SG-IRR look alligator
 "Look at the alligator!"
- e. (. PM .) (. RM)
 Nurutú rásarijésiy ríicya.
 rá-sariy-jásiy
 alligator INAN-hold-PROX1 net
 The alligator the net held.' (LAG015-019)

In clause (582e) there is little or nothing that is new information. Perhaps the verb sariy 'hold' might be considered new, but it is given from the situational context since anything in the net is being held by the net. The net is introduced in the first clause of the text (not included here), and is overtly mentioned with a noun phrase three times prior to clause (582a). The alligator itself is certainly given information by the time of clause (582e). Thus, (582e) is a statement of information already given (i.e. assumed to already be in

the hearer's consciousness) on the basis of the previous linguistic and situational context. It is not clear that any informational relationships are being corrected, expanded, restricted, or otherwise contrasted. Thus, (582e) can be taken simply as a 'restatement' of already assumed or presupposed information. The focus of attention is clearly on the alligator, not the net, and therefore the object nominal occurs in the PM position.

Example (583) continues the text from which (582) is taken. (583h) illustrates use of a pre-verbal adverb in added detail restatement.

- (583) a. (PM) (. RM)
 Nurutú rásarijésiy ríicya.
 rá-sariy-jásiy
 alligator INAN-hold-PROX1 net
 'The alligator the net held.
- b. Núutyiy díifunta sanichâásiy váriy.
 díiy-mu-nta sa-nicha-jásiy
 like die-CL:ANIM:SG-seem 3SG-be-PROX1 then
 Like a dead one he seemed then.
- c. Sapiítaday náavájyꞑ.
 Sa-píita-day náaváy-jꞑ.
 3SG-throat-DAY above-AL
 His throat was upwards.
- d. Rachꞑodáásiy jííta jumufuviimúꞑnii.
 ray-sꞑona-jásiy jumufu-viimu-jꞑ-nii.
 1SG-lift-PROX1 JIITA canoe-inside-AL-3SG
 I lifted him into the canoe.
- e. Rjínúújésiy jííta saniisimyu.
 Ray-jimúuy-jásiy sa-niisiy-mu
 1SG-look-PROX1 JIITA 3SG-eye-LOC
 I looked in his eyes.
- f. Néé jumufunuuꞑáy.
 jumúuy-mu-nuuꞑáy
 NEG live-CL:ANIM:SG-anymore
 He was not an alive one anymore.

- g. Rafiiy supatáásiy jiíta riicyaachifíí.
 Ray-niy supata-jásiy riicya-jachiy-níí
 1SG-MALF extricate-PROX1 JIITA net-there:from-3SG
 I tried to extricate him from the net.
- h. (. . . FM . . .) (. RM)
 Sárra rásarijésiy núújiíy
 sára-ra rá-sariy-jásiy núú-jiíy
 tight-CL:NEUT INAN-hold-PROX1 near-place
 Tight, it held near
-)
 sanruutaása.
 sa-nuruu-taása
 3SG-nose-in:middle
 the middle of his nose.' (LAG019-026)

In (583), clause (h) is an added detail restatement of clause (a), amplifying the manner in which the alligator was held. The restatement comes after a description of how the speaker has tried, but failed, to remove the alligator from the net. At this point of frustration, he focuses the hearer's attention on how tightly the alligator is caught in the net.¹³

Clause (584c) illustrates adding the information sa-rooriy 'his house' to information previously presented in the locative phrase in (584b). Clause (c) is a non-nuclear adverbial clause relative to (d), but within (c) itself there is marked pragmatic structuring.

- (584) a. (. . . FM . . .) (. RM)
 "Nútyaramusiy sadiyanu rajyéébyey?"
 mútyara-musiy sa-díiy-jamu ray-jááy-bay
 how-from 3SG-die-PAST3 1SG-father-deceased
 "How did my deceased father die?"
- b. (. FM . . .) (. RM)
 "Mudavunchasiy sadusiyadájuu.
 mudavu-jacha-siy sa-dusiy-jada-júú
 ridge:pole-on-AB 3SG-slip-PAST3-JUÚ
 "From up on a ridge pole he slipped (of course).

- c. (. Non-nuclear Delimiting
 (. FM)
 Múny sa-rooriy mudavû-va
 there 3SG-roof ridge:pole-DAT
 There on the ridge pole of his roof
-
 (. FM)
 jífiy rupíífiyáadaryáju
 jiy-niy rupíiy-nayáa-daryáju
 COR-MALF walk-going:aimlessly-because
 because he was walking all over,
- d. (. Nucleus))
 sadusiy jííta jáchiy.
 sa-dusiy jásiy-siy
 3SG-slip JIITA there-AB
 he slipped from there." (LX018-019)

6.4.5. Counter expectation

Occasionally in the texts examined, assertions are made counter to culturally, situationally, or perhaps textually expected presuppositions. These also correlate with preverbal placement of some constituent of the nuclear predication. The text from which (585) is taken describes a trip in a small airplane. At one stop-over point the pilot of the airplane goes off to buy soft drinks. Prior to this clause there has been no reason to suppose anything about buying of soft drinks or anything else:

(585) (. . . FM . . .) (. FM)
 Sábunujáá satááryíy váriy núúñaatoodájù
 sábuu-jáá sa-tááryíy núúña-jatu-jada-jù
 sweet-CL:liquid 3SG-buy then 1DL-drink-INF-AL
 'Soda pop he bought then for us to drink'. (PACH076)

In the Yagua culture soft drinks are not readily available, given both distance from places where such things are sold and the fact that obtaining them requires money rather than one's physical labor.

It may be that sábuujaá 'soda pop' occurs in the FM position by virtue of the fact that one does not usually expect to get it, in opposition to certain other things which are culturally expected. If the pilot had gone off to buy manioc or plantains, would the event even have been worth reporting?

The following example is taken from a text where some men have gone off on several days' journey to cut leche caspi (a type of tree). At the point where (586) occurs, the men are discussing building a shelter beside a stream, hunting some game for their provisions, and are planning the next day's search for leche caspi. In the situational context, finding munufu 'savages' (i.e. non-Yagua indians) in the area is counter to their immediate expectations and plans, though in the retelling of the story, the speaker presages for the hearer what they will find.

(586) Nūúdyeétyetya váridiidyécyu
 núy-dáátya-tya váriy-diiy-day-cù
 1PLEXCL-know-NEG then-PRIORATIVE-DAY-CU
 'We didn't yet know

(. . FM . .) (. FM .)

jirya	munufu	jiyúcù.
jiy-ra		jiyu-cù
DEMO-CL:NEUT	savages	here-CU

'that savages were here'. (IS028)

6.4.6. Threats

The second clause of (587) begins with a preverbal object pronoun. In the text immediately preceding (587) the referent of níi 'him' has been identified as a bird.

(587) a. Sa-páta-ríj jíjita-rà vúdnicada
 3SG-break-enroute JIITA-INAN dry:stick
 'He (Mokáyu) breaks in passing a dry stick.

b. (PM) (. . . RM . . .)
 "Níí rāā jaachiy
 ray-ā
 him 1SG-IRR spear
 "Him (the bird) I'll spear,"

c. Sūṭáyujū.
 sa-jūṭay-yū-jūū
 3SG-say-CORO-JUŪ
 he says to himself.' (KT094-096)

Nothing has been said in previous context to lead us to believe that anyone is going to be speared or killed. Since there is no (obvious) presupposition, (587b) is not a canonical example of single-focus contrast. It is not an instance of double-focus contrast, restatement, or any sort of question. Yet the free pronoun níí 'him' as well as its preverbal position indicate a marked construction (the same information could have been communicated by the unmarked construction: Raa jachifíí (1SG-IRR spear-3SG) 'I'll spear him'). What is communicatively marked about (587b) is that in preceding context the bird has been hassling the speaker to no end and (587b) is said as a threat rather than a simple assertion about going out to shoot a bird. Threats are unlike the conditions identified in Sections 6.4.2 through 6.4.4 in that there may be no identifiable presupposition relative to the textual or situational context. As with counter expectation, however, there may be culturally (or even universally?) given presuppositions. In order for a threat to be effective, it must promise something which both speaker and hearer assume is undesirable. In this sense there may be a cultural or universal presupposition to the effect that 'To be killed is

undesirable'. To be effective, the speaker must ensure that the hearer or addressee realizes the undesired nature of the impending situation. The speaker must thus take pains to make this cognitively salient to the hearer. In terms of speaker-hearer relations, it is more than a simple assertion.

Example (588) is similar to (587). There has been no previous mention of a beetle and there are no presuppositions about anyone 'planting' the victim under ground. However, it is said as a warning or threat to Mocáyu.

(588) Játíy jiya múúntiy, Mocá.
 jiy-jiya múúy-ntiy
 careful 2SG-go there-REP Mocáyu
 'Be careful of going there again, Mocáyu.'

(. PM .) (. . . RM . . .)
 Jaséésiy rą dápuuta-jíy.
 beetle IRR plant-2SG
 The beetle will plant you (under the ground)'. (KT109-110)

Again, the speaker may assume the hearer will agree that 'being planted underground' is undesirable, or that 'beetles who plant you underground should be avoided'.

6.4.7. Semantically marked conditions

Another type of markedness has to do with semantics. When adverbs and descriptive modifiers occur in the PM position, they convey an extra degree of whatever quality the modifier expresses. The following two examples illustrate the contrast with descriptive modifiers:

(589) Saṭtóósiy jaṭmura jaṭ jiviimúju.
 sa-jatu-jásiy jaṭmu-ra jiy-váimu-jù.
 3SG-drink-PROX1 much-CL:NEUT water COR-inside-AL
 'He drank a lot of water inside (his stomach).'

(590) (. . PM . .) (. RM)
 Jaṭmura saṭtóósiy jaṭ jiviimúju.
 Jaṭmu-ra sa-jatu-jásiy jaṭ jiy-váimu-jù.
 much-CL:NEUT 3SG-drink-PROX1 water COR-inside-AL
 'He drank too much water inside (his stomach).'

The following two examples illustrate the contrast with adverbs:¹⁴

(591) Tomása jitṭi-jásiy váneera múi-jyù.
 Tom arrive-PROX1 quickly there-AL
 'Tom arrived quickly there.'

(592) (. PM .) (. RM)
 Váneera siitṭijásiy múijyù.
 sa-jitṭi-jásiy múiy-jù
 quickly 3SG-arrive-PROX1 there-AL
 'Very rapidly he arrived there.'

Negation is semantically more marked than positive assertion. Negation of constituents correlates with placement of the negated constituent in preverbal position. In (594) the preverbal *tii* 'anyone' and postverbal *juvarya* 'fighter' both refer to the subject referent. *Tii* 'anyone' counts as a subject constituent (rather than as a floated quantifier within the verb phrase, for example), in that its preverbal placement precludes use of a Set I clitic on the verb referring to the subject.

(593) (. . . PM . . .) (. RM .)
 Néé buyaṭ sa-vaṭata.
 NEG manioc:beer 3SG-want
 'He doesn't want manioc beer'.

(594) (. PM .) (. RM)
 Néé t̥i̥ j̥it̥i̥n̥ú̥yanu j̥v̥arya
 j̥it̥i̥-n̥ú̥y-j̥anu j̥v̥ay-ra
 NEG anyone arrive:here-IMPF-PAST3 fight-CL:NEUT
 'None of the fighters arrived'

 . RM)
 ruumu nuuday.
 riy-umu
 3PL-LOC anymore
 where they were anymore'. (DAVX014)

6.4.8. Problem cases

There are some remaining examples in the texts which do not fit any of the conditions previously described, and yet where a constituent order associated with pragmatically marked conditions occurs. In the Leche Caspi text, for example (cf. Section 1.4), there are a number of clauses where munufu or munufúmiy 'savages' occurs in preverbal position, but where none of the conditions outlined in preceding sections appear to hold. Presumably the presence or absence of the savages is highly significant to the men's ongoing activities and safety. Thus, there is some as yet ill-defined emotive force associated with these clauses:

(595) a. R̥p̥t̥acharatée
riy-j̥t̥ay-sara-tée
3PL-say-HABIT-EMPH

b. munufu tutánrya
tutaniy-r̥a
savage put:interception-INAN

'(a) They say (b) savages put an interception [an ambush or a shortcut?]' (IS071)

Very similar examples occur in the First Squirrel text. The Squirrel tries to trick the First Deer and the First Toucan into fording the river across the back of a boa. Deer and Toucan both wonder if the place where Squirrel tells them to ford is, or is not safe. When this place jii 'here' (i.e. the boa) is mentioned, it often occurs in preverbal position:

(596) a. Saquiiv̥ú̥chu j̥j̥ta j̥ifu múcatyunií
sa-quiiv̥ú̥y-su j̥iy-mu múcatyu-níí
3SG-deceive-TRNS JIITA DEMO-CL:ANIM:SG squirrel-3SG
'This Squirrel deceived him:

b. "Jii-siy vury̥a-̥a ram̥útiy.
here-AB 1PLINC-IRR ford
"From here we will ford.

c. Jiisiy raryam̥útiçhara."
jii-siy ray-ram̥útiy-sara
here-AB 1SG-ford-HABIT
From here I (=squirrel) always ford". (FSQ004-006)

There are other examples which are more intransigent, and for which I have even less of an explanation. In (597) third person singular clitics refer to a group of animals which are not individuated one from another. Ratu 'water hole' and púúv̥aryatu 'guan's water hole' are marked as animate:

- (597) a. Múy sáda-dapúy.
 there 2DL-hunt
 'There you two will hunt (at a water hole).
- b. Néé ripyá-ní pūvaryatu
 NEG far-3SG guan:water:hole
 The guan's water hole isn't far.
- c. Capityasiy saramuchu siimu.
 sa-ramuy-su sa-imu
 quinilla 3SG-swallow-TRNS 3SG-LOC
 Quinilla they swallow there (at the water hole).
- d. Capityasiy sa-turíy.
 3SG-suck
 Quinilla they suck.
- e. Rátadii saramuchu siimu ratu.
 rá-tadii sa-ramuy-su sa-imu
 INAN-seed 3SG-swallow-TRNS 3SG-LOC water:hole
 Its seed they swallow at the water hole'. (HTR154-160)

The preverbal position of capityasiy 'quinilla' and rátadii 'its seed' in clauses (d) and (e) could conceivably be explained as cases of restatement and added detail restatement based on clause (c). But the preverbal position of capityasiy in clause (c) itself is not clear. To this point in the text there are no (obvious) presuppositions about eating anything or about quinilla fruit. This is probably a case where cultural knowledge and the speaker's anticipations of how the text will develop are important in explaining the choice of pragmatic structuring. The quinilla trees at this water hole attract animals. Consequently the hunters can expect to find game there, perhaps in contrast to other possible places. This may, in fact, account for preverbal positioning of múy 'there' in clause (a). Apparently the presence of quinilla trees is communicatively important for the hunters.

6.5. Summary of pragmatically marked types

Table 6.1 presents the distribution of pragmatically and semantically marked types found in the texts discussed in Chapter 1 (Section 1.4).¹⁵ The 'other' category includes both the 'problem cases' where there is some (as yet) ill-defined 'emotive' force associated with the preverbal element, and those for which I have no explanation whatsoever. Conceivably some of these may be due to factors such as false starts and repairs. (In the texts there are a number of preverbal locatives such as jásiy 'there' which is almost conjunction-like in function, and locative demonstratives which occur with very high frequency as a structural feature of S_0 clauses. These are excluded from Table 6.1, though they are included in Table 6.3 below.)

Single Focus Contrast (and other single focus types)	38	11%
Double Focus Contrast	43	13%
Restatement	45	13%
Added Detail Restatement	37	11%
Question	81	23%
Answer to Question	13	4%
Counter Expectation	11	3%
Negation	4	1%
Threats	6	2%
Sub-total	278	81%
Other (unexplained)	67	19%
Total	345	100%

Table 6.1 Distribution of Pragmatically and Semantically Marked Types

Table 6.1 shows that the 'other' category is one of the largest categories. However, preverbal positioning of constituents in 81% of the clauses still correlates with one of the pragmatic or semantic situations outlined in preceding sections.

Table 6.2 gives the number of instances where a predication appears to occur in a context meeting one of the pragmatic conditions outlined in Sections 6.4.1 through 6.4.7, but no constituent of the predication occurs in preverbal position. The majority of these are cases of restatement.

Double Focus Contrast	1
Restatement	12
Added Detail Restatement	3
Total	16

Table 6.2 Distribution of Pragmatically Marked Predications Without Preverbal Positioning of a Constituent

If we leave out the 'other' category in Table 6.1, and combine the remaining data of Tables 6.1 and 6.2, then there are 294 clear cases where we might expect to find a preverbal constituent. In only 5% (16) of the cases this does not happen.

Table 6.3 presents the data of Tables 6.1 and 6.2 in the context of the approximately 1516 clause corpus examined in detail (Section 1.4). To summarize what was said above, there are 290 cases with some sort of definable pragmatically marked status. There are four cases which I consider strictly semantically marked (rather than a combination of pragmatically and semantically marked, or just pragmatically marked). In 96% (278) of these 294 cases, there is a preverbal constituent in subject, object, or oblique syntactic role, or some subconstituent of such a constituent. In contrast, there are 1222 clauses where no pragmatically or semantically marked conditions can be clearly identified. Of these, 92% (1124) are verb initial (discounting clear conjunctions and non-nuclear delimiting phrases within the scope of \bar{C}). There are 98 cases where there is a preverbal constituent under conditions which are not clearly pragmatically or semantically marked. In 31 of these, the preverbal constituent is a

loctive such as occurs in S_0 clauses, or locatives such as jásiy 'there' which are almost conjunction-like, indicating sequence rather than a clearly referential location. If we factor out these 31 cases, it leaves 1191 non-pragmatically marked cases where we would not expect to find a preverbal constituent (within the scope of \bar{C}). 94% of these clauses (1124 out of 1191) are in fact verb initial within the scope of \bar{C} .

	PREVERBAL CONSTITUENT	VERB INITIAL	TOTAL
PRAGMATICALLY/ SEMANTICALLY MARKED	278	16	294
NON-MARKED			
S ₀ or conjunction-like locative	31	98	1222
Other	67		
TOTAL	376	1140	1516

Table 6.3 Cross-tabulation of Marked Predications Relative to Non-Verb Initial and Verb Initial Predications (Within C).

Without factoring out the 31 S₀ clauses with initial locatives and cases with conjunction-like locatives, the value of χ^2 with Yate's correction for the data in Table 6.3 is 947.2. This is significant at the .001 level with one degree of freedom. Consequently, we can safely reject the null hypothesis and conclude that there is an association between definable pragmatically or semantically marked statuses and preverbal positioning of constituents. This is despite the presence of some cases which do not, as yet, meet identifiably marked conditions, and despite the presence of some cases which do appear to meet such conditions but yet do not have a preverbal constituent. The number of such cases is not nearly high enough to reduce the association to a non-significant level. It should be emphasized that with a different corpus, the exact numbers and percentages would no doubt be somewhat different. However, since the

value of χ^2 is significant for this corpus at the .001 level, it gives us a strong measure of assurance that the association observed here is not simply due to chance.

In summary, there are at least nine definable semantic and pragmatic conditions (or sets of conditions) under which a constituent of a predication will, with a high degree of probability, occur in preverbal position. I suggest that these conditions not only correlate with, but in fact motivate, preverbal positioning of constituents. I have not explored in any depth correlation of free pronouns, second position clitics such as jīta and niy, or intonational features with pragmatically marked conditions. It may be that different (sets of) conditions will correlate with one, rather than another, of these devices. Constituent order, however, does not differentiate between them. What appears to be significant is not whether something is in double focus contrast rather than single focus contrast, added detail restatement, or counter expectation, for example, but simply whether it is 'pragmatically marked' in any of the ways identified (or perhaps other ways as yet unidentified). The sub-conditions do not matter for purposes of order.

6.6. Frequency distribution of syntactic constituent orders

In what follows I refer to arguments encoded with noun phrases or free pronouns as 'overt' arguments. In the corpus of 11 texts studied extensively (Section 1.4), 62% of all clauses do not contain any full noun phrases or free pronouns referring to either subject or object (i.e. direct) arguments. 35% contain one overt subject or

object argument. Only 3% contain two overt direct arguments. This information is presented in Table 6.4. Transitive clauses are distinguished from intransitive clauses. (A = subject of a transitive clause, S = subject of an intransitive clause, O = object of a transitive clause.)

	TRANSITIVE		INTRANSITIVE		TOTAL	
V-only	172		761		933	62%
1 ARGUMENT	242	(= A: 39) (= O: 203)	292	(=S)	534	35%
2 ARGUMENTS	47	(= A & O)	—		47	3%
3 ARGUMENTS	2	(= A, O & O)	—		2	—
TOTAL	463	31%	1053	69%	1516	100%

Table 6.4. Cross-tabulation of Number of Clauses With Zero, One, Two, and Three Overt Direct Arguments Relative to the Transitivity of the Clause

Table 6.5 gives the distribution of orders in clauses with two and three overt argument. A,OV and O,AV indicate that the first constituent occurs in the non-nuclear delimiting position, as can be demonstrated by placement of C clitics and resumptive use of Set I or Set II clitics. (Technically these should perhaps be counted as single overt argument clauses.)

VAO	18	
VACO	1	
AVO	14	
AVOO	1	
OVA	11	
AOV	—	
OAV	—	TOTAL: 45
O,AV	3	
A,O'V	1	TOTAL: 49

Table 6.5 Distribution of Constituent Orders in Clauses
Containing Two and Three Overt Arguments

The data in Table 6.5 is not very indicative of basic constituent order in and of itself. The most we can conclude is that neither AOV nor OAV is probably the best choice. The differences across the other three major types (VAO, AVO, and OVA) are not great enough to give any clear indications. When we compare clauses that have one preverbal and one or two postverbal arguments with those that have just postverbal arguments, there is a difference of 26 to 19. This (weakly) suggests that a clause may be more likely to overtly encode two or more arguments when one of those arguments is pragmatically marked. In contrast, clauses with zero or one overt argument are communicatively more neutral in naturally occurring discourse.

Although order of arguments in clauses with two or three overt arguments is not very indicative, the distribution of arguments in one overt argument clauses is far more revealing. The data in Table 6.6 show that 70% of overt direct arguments occur postverbally while

only 27% occur preverbally. In 3% of the cases the single argument is discontinuous, with part of the argument occurring preverbally, and part postverbally, as in (580), (590), (594), and (598):

(598) Dá-nu-jjy naada-jiryiy jâq̄cachoonu.
 two-CL:ANIM:SG-two 3DL-get parakeet
 'They got two parakeets'. (HTR063)
 (Literally: 'Two they got parakeets'.)

The discontinuous nature of the argument is represented by S-V-S, A-V-A, or O-V-O in Table 6.6. In each case, I consider there to be only one S, A, or O argument.

VS	210			
VA	17			
VO	150	TOTAL:	377	70%
SV	75			
AV	21			
OV	47	TOTAL:	143	27%
S-V-S	7			
A-V-A	1			
O-V-O	6	TOTAL:	14	3%
		TOTAL:	534	100%

Table 6.6 Distribution of Constituent Orders in Clauses
 Containing One Overt Direct Argument

As suggested by the data in Tables 6.4 and 6.6, in one overt direct argument clauses, the one argument is overwhelmingly the 'absolute' argument: either S or O, but hardly ever A.¹⁶ This is summarized in Table 6.7 and provides further cross-linguistic evidence for Du Bois' (1984) observation that (in at least some

languages) there is an ergative-absolutive discourse pattern of overt noun phrase usage.

A (subject of transitive)	39	7%
S (subject of intransitive)	292	55%
O (object of transitive)	203	38%

Table 6.7 Distribution of Arguments in One Overt Direct Argument Clauses

Tables 6.8 through 6.10 summarize the total distribution of transitive subject (A), intransitive subject (S), object (O), and oblique constituents in the preverbal pragmatically marked position, as opposed to distribution in post-verbal position. Discontinuous arguments are counted as preverbal, in that preverbal positioning of part of a constituent may reflect pragmatically or semantically marked conditions. (Phrases occurring in the non-nuclear delimiting position are not counted. For example, in A,OV clauses the phrase occurring in the non-nuclear delimiting position is coreferential with the nuclear A. However, there is no overt nuclear noun phrase encoding the A participant.)

POSTVERBAL	VAO	18		
SUBJECT	VAOO	1		
(A and S)	OVA	11		
	VA	17		
	VS	210	TOTAL:	257 68%
PREVERBAL	AVO	14		
SUBJECT	AVOO	1		
(A and S)	O,AV	3		
	AV	21		
	A-V-A	1		
	SV	75		
	S-V-S	7	TOTAL:	122 32%
TOTAL OVERT SUBJECTS:			379	100%

Table 6.8 Distribution of Preverbal versus Postverbal Subjects

POSTVERBAL	VAO	18		
OBJECT	VAOO	2	(1 clause token)	
	AVO	14		
	AVOO	2	(1 clause token)	
	VO	150	TOTAL:	186 74%
PREVERBAL	OVA	11		
OBJECT	A,OV	1		
	OV	47		
	O-V-O	6	TOTAL:	65 26%
TOTAL OVERT OBJECTS:			251	100%

Table 6.9. Distribution of Preverbal versus Postverbal Objects

Table 6.10 presents data on the distribution of preverbal versus postverbal oblique (postpositional, time, and locative) phrases that contain nouns. It does not include oblique phrases where the object of a postposition is referenced just with a clitic, and it does not

include oblique phrases that occur in the non-nuclear delimiting position.

POSTVERBAL OBLIQUE	421	69%
PREVERBAL OBLIQUE	189	31%
TOTAL	610	100%

Table 6.10 Distribution of Preverbal versus Postverbal Noun Phrase Obliques

To summarize the data in Tables 6.8 through 6.10, approximately one-third of noun phrase and free pronoun subjects and obliques occur preverbally. Closer to one-fourth of noun phrase and free pronoun objects occur preverbally.

Initially it may be surprising to find up to one-third of noun and postpositional phrases treated as pragmatically marked in terms of position. If something is truly pragmatically marked we might not expect to see so many cases of it. However, it is important to keep in mind that Tables 6.8 through 6.10 contain only noun phrase or free pronoun direct and oblique arguments. The number of V-only clauses and one overt argument transitive clauses in Table 6.4 suggests that clitic reference is overall the most frequent means of referring to participants. More precisely, Table 6.11 below shows that 68% of references to direct arguments (transitive and intransitive subject arguments, and objects) are made by clitics, while 22% of postverbal noun phrases and only 9% of preverbal noun phrases refer to direct

arguments.¹⁷ (For obliques the figures are somewhat different, as will be discussed shortly.) Clauses with overt noun phrases may be pragmatically more autonomous in that one does not need to rely so much on context for interpretation — less need be taken as presupposed (Lambrecht 1984). But they are counter to the economic principle operative in certain types of discourse: 'one does not [overtly] specify what is already known or what is unimportant' (Haiman 1983:802). In economic terms simple clitic reference is the most basic means of referring to participants in context. Any choice of a stronger device such as a noun phrase or a free pronoun is a movement away from the most attenuated referring device and indicates a more unusual communicative situation. For example, if there are several participants interacting at any one point, there is a greater likelihood for ambiguity of reference. This raises the need to employ a stronger referring device because the cognitive expectations as to who will be referred to are more complex. If there is discontinuity of time, location, participant, or in the higher thematic organization of the discourse, stronger devices will also be employed (Fox 1984, T. Payne 1985, Givón 1983:8-12). Discontinuity is more unusual than continuity in terms of frequency, and more surprising in terms of the hearer's expectations. In the pragmatically marked communicative situations outlined in Section 6.4, free pronouns or overt NPs are required. But pragmatic factors such as contrast, correction, restatement, and counter expectation are more surprising and cognitively less expected than simple assertion.

It is too strong to say that all uses of overt noun phrases are 'pragmatically marked' in the sense that I have used that term in Sections 6.2 through 6.5. Overt presentation of new, surprising, or discontinuous information is absolutely basic to communication. A great deal of meaningful communication is motivated by the desire to change the informational store or informational relationships in the mind of the hearer - or at least to act as if one was doing that. However, presentation of new, discontinuous, or ambiguous information is perhaps closer to the marked communicative situation than is presentation of given, continuous, clearly identifiable information in the sense that the speaker cannot felicitously assume that the hearer expects any particular piece of information. To find that up to one-third of all full noun phrase direct and oblique arguments are highly pragmatically marked is less surprising if we recognize that any use of an overt noun is in some degree less than neutral.

If we compare number of preverbal direct noun phrase arguments with postverbal direct noun phrase arguments and zero overt argument clauses, then the percentage of preverbal phrases is only 9%. The data are given in Table 6.11 for direct arguments. (Table 6.11 gives number of references to direct arguments. Table 6.4 above gives number of clauses.)

			PREVERBAL NP	POSTVERBAL NP	CLITIC	TOTAL
V-only	intransitive	S			761	761
	transitive	A			172	172
	transitive	O			172	172
1 Argument	intransitive	S	75	210		285
		S-V	7			7
	transitive	A	21	17	204	241
		A-V-A	1			1
		O,AV	3			3
		O	47	150	42	236
		O-V-O	6			6
		A,OV	1			1
2 Argument	transitive	VAO		18 (=A)		18
				18 (=O)		18
		VAOO		1 (=A)		1
				2 (=O)		2
	OVA	11 (=O)		11 (=A)		22
	AVO	14 (=A)		14 (=O)		28
	AVOO	1 (=A)		2 (=O)		3
TOTAL		187	443	1351	1981	
		9%	22%	68%	100%	

Table 6.11 Distribution of Preverbal Noun Phrases, Postverbal Noun Phrases, and Clitic References for Direct Arguments

Table 6.12 summarizes preverbal and postverbal noun phrase (and free pronoun) references, and clitic references to A, S, and O arguments.

	PREVERBAL NOUN PHRASE	POSTVERBAL NOUN PHRASE	CLITIC	TOTAL
A (=transitive subject)	40 9%	47 10%	376 81%	463
S (=intransitive subject)	82 8%	210 20%	761 72%	1053
O	65 14%	186 40%	214 46%	465
TOTAL	187 9%	443 22%	1351 68%	1981

Table 6.12 Cross-tabulation of Syntactic Role Relative to Preverbal Phrase, Postverbal Phrase, and Clitic References to Direct Arguments

Table 6.13 summarizes the distribution of preverbal and postverbal phrases with nouns (and free pronouns), versus clitic references to oblique arguments. Four cases of preverbal oblique phrases contain just clitic references. All other cases of clitic obliques are postverbal. Unlike direct arguments, clitic references are less frequent for obliques than are postverbal phrases containing nouns.

PREVERBAL OBLIQUE PHRASE	POSTVERBAL OBLIQUE PHRASE	CLITIC	TOTAL
189 (noun)	421 (noun)	277	891
4 (clitic)			
= 22%	= 47%	= 31%	= 100%

Table 6.13 Distribution of Preverbal, Postverbal, and Clitic References to Oblique Arguments

Comparison of Tables 6.12 and 6.13 shows a ranking of clitic versus noun phrase references relative to different syntactic roles. A's are most likely to be coded with clitics (81%). S's are the next most likely (72%), and then O's (46%). Obliques are least likely to be coded with clitics (31%). There is a marked difference between subjects (the conjunction of A and S) as opposed to objects and obliques: objects are more like obliques than they are like subjects in this respect. I present it as a hypothesis here that this difference in encoding patterns is the result of a functional pattern. Although intransitive subjects do have a major function in encoding new information (Du Bois 1984), overall they encode a greater number of given or 'continuous' (Givón 1983) rather than new participants. This is shown for Papago in Doris Payne (1984c), for example. Objects and obliques, on the other hand, have a more dominant role in introducing new information into the discourse than do either A's or S's.

The major point I wish to make here is that when preverbal references are opposed to the conjunction of postverbal noun and oblique phrase and clitic references, the number of preverbal references is less surprising: only 13% overall for both direct and oblique arguments. This is summarized in Table 6.14. Although some conjunction-like locatives and demonstrative locatives associated with S_0 clauses are included in these preverbal phrases, the majority of preverbal obliques reflect some pragmatically marked status.

	PREVERBAL PHRASE	POSTVERBAL PHRASE OR CLITIC	TOTAL
A	82 8%	971 92%	1053
S	40 9%	423 91%	463
O	65 14%	400 86%	465
OBLIQUE	193 23%	698 77%	891
TOTAL	380 13%	2492 87%	2872

Table 6.14 Percentage of Preverbal References to Arguments, Versus Postverbal and Clitic references.

6.7. Relative order of direct objects and obliques

I have argued that the pragmatically unmarked order of verb, subject, and object when overt noun phrases are used is Verb-Subject-Object for transitive clauses and Verb-Subject for intransitive clauses. These orders are based strictly on syntactic role. Accounting for the order of direct objects and obliques relative to one another is less straightforward. In the approximately 1516 clause corpus upon which the conclusions of this chapter are based (Section 1.4), postverbal references to both an object and an oblique participant occur in 120 clauses. In 45% of these 120 clauses the order is Object-Oblique, and in 55% it is Oblique-Object. These figures include both noun and clitic encoding of the referents. They show that syntactic role alone does not account for order.

The factors governing relative order of objects and obliques are sufficiently complex that I will not be able to account for 100% of the data here.¹⁸ Instead I will present the major generalizations that

account for 70% to 90% of the data. The first approximations are that (1) within certain limits, given, definite, and/or highly continuous information (highly 'topical' in the sense of Givón 1983) occurs at the end of the clause, and that (2) clitic references preferably follow noun phrase references. Though not totally independent, these two generalizations are also not equivalent. The first generalization is in accord with VIN which suggests there may be a tendency to move 'old' information to the end of the clause in verb initial languages. In Yagua, however, this does not extend to placement of subject references at the end of the clause (except for subjects of S_0 clauses; Section 2.1.2).

When there is a difference in given versus new status between object and oblique, given information follows new information in 80% of the cases regardless of syntactic role. The figures are presented in Table 6.15.¹⁹ (In the remainder of this Chapter I use the symbol 'P' to indicate postpositional and other oblique participants. The way in which I use the terms 'given', 'definite', and 'referential' is discussed in Chapter 3.)

	OP	PO	Total	
Given-New order	7	2	9	20%
New-Given order	16	19	35	80%
Total	23 52%	21 48%	44	100%

Table 6.15 Cross-tabulation of Given-New and New-Given Orders Relative to OP and PO Syntactic Role Orders

Similarly, when there is a difference in definite versus indefinite status between object and oblique, definite information follows indefinite information in 73% of the cases. The data are presented in Table 6.16.²⁰

	OP	PO	Total	
Def-Indef order	9	3	12	27%
Indef-Def order	18	14	32	73%
Total	27 61%	17 39%	44	100%

Table 6.16 Cross-tabulation of Definite-Indefinite and Indefinite-Definite Orders Relative to OP and PO Syntactic Role orders

One potential problem with the figures reported in Tables 6.15 and 6.16 is an imposition on the data of a simple dichotomy between given and new, and between definite and indefinite information (see discussion in Chapter 3).

The figures in Tables 6.15 and 6.16 do not say anything about order when object and oblique both encode information of the same pragmatic status: given-given, new-new, definite-definite, and indefinite-indefinite combinations. In these cases the determining

factors are murkier. The number of new-new and indefinite-indefinite combinations is small and unrevealing. In indefinite-indefinite combinations, OP and PO orders occur two times each. In new-new combinations, OP order occurs eight times and PO order occurs two times.

In definite-definite combinations, PO order occurs in 64% of the cases. In given-given combinations PO order occurs in 63% of the cases. These figures are given in Table 6.17. (Given-given and definite-definite categories contain many of the same tokens. Therefore summing across them would give an artificially inflated number of OP and PO occurrences.)

	OP		PO		Total	
Def-Def	25	36%	45	64%	70	100%
Given-Given	23	37%	39	63%	62	100%

Table 6.17 Cross-tabulation of Definite-Definite and Given-Given Information Relative to OP versus PO orders

The data in Table 6.17 suggest that the object is more likely to occur at the end of the clause (i.e. the PO order) when object and oblique are both given or both definite. However, when the value of χ^2 is calculated on cross-tabulations of all four possible combinations of given versus new status relative to OP versus PO order, the resultant value is not significant at the .05 level. Similarly, when the value of χ^2 is calculated on cross-tabulations of all four possible combinations of definite versus indefinite status relative to OP versus PO order, the resultant value is also

not significant at the .05 level. Consequently, on the basis of this data we could not safely conclude that any apparent association between given/new or definite/indefinite combinations and PO versus OP order might not be simply due to chance. Lack of a strong correlation is perhaps because objects and obliques are (statistically) equally likely to be given or new, and equally likely to be definite or indefinite. Table 6.15 above particularly suggests this. OP order occurs 52% of the time and PO order 48% of the time regardless of given/new status. In other words, although we can see tendencies regarding ordering of given and new, and definite and indefinite information relative to one another, the overall tendencies are not sufficiently strong to allow strong predictions as to whether the order will be PO or OP in any given case.

The other crucial factor interacting with definiteness and givenness is choice of encoding devices. Interestingly, ordering of encoding devices in itself correlates significantly with order of syntactic roles (though does not account for 100% of the data). As I will suggest below, this correlation may be partly due to a preferred encoding pattern for syntactic roles, plus a preferred ordering of noun phrases versus clitics. In particular, O's are more likely to be encoded with clitics than are obliques. In the 120 cases where objects and obliques co-occur postverbally, 46% of objects are encoded with clitics, while 31% of obliques are encoded with clitics. In T. Payne's (1985) topic continuity study, 55% of all object participants were encoded with clitics, as opposed to 46% of all obliques. Conversely, 44% of objects were referred to with a noun

phrase (both clitic plus noun phrase and simple noun phrase devices), as opposed to 54% of obliques.

Table 6.18 presents cross-tabulation of encoding combinations for object (O) and oblique (P), relative to OP versus PO order as the dependent variable. I have differentiated between clitic-plus-NP, NP, and clitic devices. In the 120 cases where oblique and object co-occur postverbally, there are no cases where an oblique is encoded with a clitic-plus-NP. For the independent variable, order of devices is not relevant — only choice of devices.

	OP ORDER	PO ORDER	TOTAL
clitic-plus-NP = O & NP = P	16	5	21
NP = O & NP = P	14	8	22
clitic-plus-NP = O & clitic = P	3	6	15
NP = O & clitic = P	9	2	11
NP = P & clitic = O	4	34	38
clitic = O & clitic = P	2	11	13
Total	54 45%	66 55%	120

Table 6.18 Cross-tabulation of Encoding Device Choices Relative to OP versus PO order.

The value of χ^2 for the data in Table 6.18 is 41.6 which is significant at the .001 level with 5 degrees of freedom. It is very

unlikely that the observed association between choice of encoding device combination and syntactic role order is just a matter of chance. Calculation of λ_b statistics successively leaving out various of the encoding choices, shows that the strongest association is seen when a noun phrase encodes the oblique and a clitic encodes the object (the NP = P & clitic = O category). This is also suggested by simple percentages: In 34 out of these 38 cases (89%), reference to the oblique precedes reference to the object.²¹ However, the reason why NP = P & clitic = O correlates so strongly with PO order is because objects are more likely than obliques to be encoded with clitics, and the really determinative factor is NP - clitic order. This is suggested by the figures in Table 6.19. All cases where one argument is encoded by an NP (both NP and clitic-plus-NP) and the other argument is encoded by a clitic are included, regardless of whether the information encoded is given, new, definite, or indefinite.

NP - clitic order	52	81%
clitic - NP order	12	19%
Total	64	100%

Table 6.19 Distribution of NP Plus Clitic Orders

The data in Table 6.20 show that when just new-given cases are considered, NP - clitic order goes up to 100%.

	NP - clitic	clitic - NP
NP = O & clitic = P	18	—
NP = P & clitic = O	16	—
Total	34	100%

Table 6.20 Cross-tabulation of Encoding Choices for Syntactic Roles Relative to NP and Clitic Orders; New-Given Combinations Only

Table 6.21 contains only Given-Given combinations.²² These data also suggest that NP-clitic order is a highly determinative factor in accounting for order of syntactic roles. When both O and P are given, NP - clitic order occurs in 75% of all cases. When P is encoded by an NP but O is encoded by a clitic, NP - clitic order occurs 90% of the time.

	NP - clitic	clitic - NP	TOTAL
NP = O & clitic = P	9 56%	7 44%	16 100%
NP = P & clitic = O	18 90%	2 10%	20 100%
TOTAL	27 75%	9 25%	36 100%

Table 6.21 Cross-tabulation of Encoding Choices for Syntactic Roles Relative to NP and Clitic Orders; Given-Given Combinations Only

Calculation of λ_b statistics on the data in Table 6.18 shows that when both object and oblique are encoded with NP's (both clitic-plus-NP = O & NP = P, and NP = O & NP = P combinations), there is also a fairly strong association with OP versus PO orders (though

not as strong as when one argument is encoded with an NP and the other a clitic). Here we see the exact reversal of syntactic roles: object precedes oblique in 73% of the cases. The percentages are given in Table 6.22.²³

	OP	PO	Total
clitic-plus-NP = O & NP = P	16 76%	5 24%	21 100%
NP = O & NP = P	14 70%	6 30%	20 100%
TOTAL	30 73%	11 27%	41 100%

Table 6.22 Cross-tabulation of NP-plus-NP Encoding Combinations Relative to OP and PO orders

I would like to suggest three principles to account for the major patterns seen, though based on the present study these are best taken as hypotheses rather than as definitively proven.

1. When both object and oblique constituents occur in a clause, the object is more likely to be a central, more highly 'thematic' participant than is the oblique. Central characters are defined in T. Payne (1985) as those 'characters that the text is about', and which 'do not lose their status...even if they are not mentioned for an entire episode'. Central or thematic participants are those which the hearer cognitively expects to recur throughout the discourse (even if referred to primarily by attenuated devices). Fillmore (1977) implies that participants encoded as objects (as well as subjects and indirect objects) are 'in perspective' as opposed to participants

encoded in oblique phrases. Participants that are cognitively 'in perspective' are more likely to be those about which the text or subtext is told. Doris Payne (1984c) shows that in Papago narrative discourse, objects are more likely to encode animate participants than are obliques. Normally animate participants can be expected to have greater continuity throughout a text (to be more highly 'topical' or 'thematic' in the sense of Givón 1983), and to be the entities about which the text or subtext is told.

2. Highly topical (=highly continuous) participants are more likely to be encoded by clitics than by NP's in Yagua. This is substantiated in T. Payne (1985) and reflects the economic principle stated by Haiman (1983).

3. In Yagua, clitic references to participants tend to come last in the clause. This is suggested by the data in Tables 6.18 through 6.21. This ordering pattern correlates with a tendency to place given/definite information last in the clause, as suggested by the data in Tables 6.15 and 6.16.

When factors (1) and (2) work in conjunction, objects will be encoded by clitics. Factor (3) then accounts for the preponderance of PO orders seen in Table 6.18 when the object is encoded by a clitic (i.e. the sum of NP = P & clitic = O, and clitic = O & clitic = P categories).

These principles may also (indirectly) explain the preponderance of OP orders when two noun phrases are used, as seen in Table 6.22. Normally the object is more topical/thematic than the oblique (factor (1) above). Thus there is a tendency to move it towards the end of

the clause (factors 2 and 3). For Yagua speakers we might hypothesize that this is the most neutral situation, the one which is cognitively most expected. However, whenever the speaker chooses to encode the object with an NP, he or she does so based on a situation where the informational content to be encoded is cognitively less-expected. Simple introduction of new information (but without additional pragmatic or semantic marking) may be one such situation. This motivates a reversal to the OP order, reflecting the less-expected nature of the information encoded or the less-neutral communicative situation.

6.8. Summary

Highly pragmatically marked information comes initially in the Yagua clause (Sections 6.2 through 6.5). Although such information may be already in the hearer's active consciousness (i.e. it is given), the speaker may anticipate that the new relationship in which which he or she wishes to establish it, or the added semantic or pragmatic salience which he or she wishes to attribute to it, is going to be judged as relatively surprising and unexpected by the hearer. This is particularly so if the speaker assumes the hearer already has some other information standing in the particular propositional relationship in which this particular piece of (soon-to-be) pragmatically marked information is going to be established.

When arguments are overtly expressed, the neutral order is Verb-Subject-Object (Section 6.2). Verb initial order is also the

most frequent in naturally occurring text (Section 6.6). This order is strictly syntactically based. Order of object and oblique relative to one another when both occur postverbally depends on a combination of pragmatic factors and the encoding device used (Section 6.7). Generally, the most topical, most highly given, most expected, and least surprising of the two comes last.

Overall, there is a general increase in the degree to which information is cognitively expected across the clause, with the important proviso that unmarked placement of the subject noun phrase is syntactically constrained.²⁴ Highly pragmatically marked information comes first, followed by the verb and subject constituents. Whichever of the object and oblique participants is least expected comes next, followed by the most expected one.

NOTES TO CHAPTER 6

¹ This is a simplified idealization of the speaker-hearer context. Actual hearers may be distinct from intended addressees, and the actual speaker may not be the originator of a message intended for the hearer or addressee. I will not pursue these elaborations of the pragmatic communicative system here.

² Dooley (1982) distinguishes 'inner' from 'outer' delimiting components. The former are those which are coreferential with arguments related to the nucleus via the semantic case or subcategorization frame of the verb. A fuller study of pragmatic structuring in Yagua would possibly distinguish these.

³ Dooley says that for Brazilian Guaraní, the Clarification element is 'a mere appendage to the pragmatic structuring of the sentence' and thus is not part of the constituent structure of the sentence. In Yagua the fact that a sentence connective can occur after clarification phrases suggests that unless the connective were also interpreted as a 'mere appendage' to the sentence as a whole, the clarification should be interpreted as within the scope of the following connective.

⁴ Dooley suggests that in all languages, unmarked pragmatic structuring within the pragmatic nucleus of the clause will consist of a 'Topic' and a 'Core' component. Dooley defines Topic as a delimiting component which is related to the pragmatic nucleus by the subcategorization and semantic case frame of the verb. The Core is the most informative part of the sentence. Normally this consists of new information, but also may consist of information that is contrastive. I will not pursue here whether this hypothesis works well for Yagua in pragmatically unmarked predictions. My primary purpose is to discuss motivations for constituent order variation and the discussion will primarily concentrate on pragmatically marked predications.

⁵ The priorative formative -diy is a phrasal clitic, occurring on both nouns and verbs. It thus patterns like the repetitive -ntiy, the emphatic -tée, and -day (function uncertain).

⁶ I will not explore intonational features of marked pragmatic structure in this chapter. Other evidences of marked pragmatic structure mentioned just in passing include use of certain second position clitics. It may be that these features differentiate between various pragmatically marked subtypes. The clitic -niy occurs in numerous examples in Section 2.4.1 (cf. especially (94) and (96)); its contrastive function is discussed in T. Payne (1985, Chapter 7). The clitic jiita correlates strongly (though not exclusively) with pragmatically marked constituent order (cf. examples (90) and (91) of Chapter 2).

⁷ Paul Powlison (personal communication) suggests that the PM' position can also be used to indicate irony, implying the opposite of the literal sense of the proposition given in the rest of the nucleus. In the texts which I have examined in detail, it is not clear that any examples fulfilling this function occur.

⁸ Chafe (1976) doesn't actually use the term 'single focus contrast', but others have applied this term to situations where the three conditions he outlines hold true (e.g Dooley 1982).

⁹ The term 'double focus contrast' is sometimes used in the literature. Asserting a correct match-up between two pairs of items is clearly far more common, though Chafe suggests that situations with triple contrast might be possible.

¹⁰ The effect of the negative particle néé in example (577c) is to rhetorically reinforce the positive assertion (Paul Powlison, personal communication). This is in some ways similar to litotes, in which an affirmative is expressed by the negative of the contrary.

¹¹ Repetition and restatement with added detail or semantically parallel information are definable poetic forms in other languages, as for example Biblical Hebrew psalms and Ixil Mayan ritual texts (Townsend 1980). I doubt that restatement and added detail restatement in Yagua narratives are primarily poetic forms, as they occur in personal and historical narratives, as well as folkloric narrative. But I have not specifically researched this.

¹² This is not necessarily true in child language and in poetic genres, for example. No doubt there is also cultural variation.

¹³ It has been suggested to me by both Paul Powlison and Desmond Derbyshire that the function of this particular instance of restatement could be 'sandwiching' a section of background information in order to clearly mark its boundaries, and in effect to say 'I'm finished talking about that now.' I doubt that most of this information is background, however, given occurrence of jiita on clauses which encode events.

¹⁴ But see Section 5.2. Some adverbials precede the verb as their basic order.

¹⁵ When a particular element is both semantically negated and in some other way pragmatically marked, I have counted it just as pragmatically marked.

¹⁶ The data in Table 6.6 may suggest that A is more commonly encoded with a noun phrase when pragmatically marked and preverbal. However, when the data of Tables 6.5 and 6.6 is taken together, overt cases of preverbal A and postverbal A are more equal. This is reflected in Table 6.12.

17 Zero reference, where there is no clitic or NP, is not a strong option in Yagua. In a count of connected discourse containing 1959 references to participants, less than .5% of 'references' lacked both a clitic and a noun phrase (Tom Payne, personal communication). In this study any 'zero references' are subsumed under the 'clitic' category.

18 Multiple linear regression analysis and a larger data base would be necessary to completely determine how various factors interact to account for this.

19 In Tables 6.15 and 6.16 I have factored out those cases where the oblique is jásiy 'there'. Jásiy has almost an adverbial sense in many cases indicating sequentiality rather than a clearly referential location. It almost exclusively precedes O, regardless of whether O is encoded with an noun phrase or a clitic, and whether O is given, new, definite, or indefinite.

20 Although Tables 6.15 and 6.16 both have 44 tokens each, these sets of tokens are not identical. In some instances a given-new combination might also encode definite-definite information. Thus the particular case would be represented in Table 6.15 but not in Table 6.16. This explains why there are 23 cases of OP and 21 of PO order in Table 6.15, but 27 cases of OP and 17 of PO order in Table 6.16.

21 Percentages are misleading in some of the other cases. For example when clitics encode both O and P, PO order occurs in 11 out of 13 cases, or 85% of the time. However, the number of tokens occurring in the OP versus PO cells is relatively close to the expected values if distribution was simply random.

22 For the given-new order when one argument is encoded by an NP and the other by a clitic, only four cases occur once jásiy 'there' is factored out. When both O and P are new, NP's encode them both. Therefore, cross-tabulation of NP-clitic and clitic-NP orders similar to those in Tables 6.20 and 6.21 are not given for new-new and given-new orders.

23 Jásiy is again factored out of Table 6.22. It was not factored out of Table 6.18 because to do so would have sufficiently reduced certain cell sizes to make calculation of χ^2 invalid.

24 This overall pattern is somewhat (though not exactly) the reverse of that argued for by Firbas (1964:170) in terms of 'basic distribution of [degrees of] communicative dynamism'. Firbas defines degree of communicative dynamism as the 'extent to which the sentence element contributes to the development of the communication, to which it "pushes the communication forward", as it were'. New information clearly pushes the communication forward more than given information, though some piece of new information may push the communication forward more than another piece of strictly new information, simply due to its inherent semantic content. For Firbas, when ordering of

information deviates from the basic distributional order, an emotive or [=pragmatically?] marked coloring is acquired, though the relative degrees of communicative dynamism inhering in particular pieces of information are not changed (273). Thus, I surmise that in Firbas' analysis of Czech, for example, a piece of information high in communicative dynamism might occur at the beginning of the sentence, giving the sentence an 'emotive' force. But this does not reflect a difference in communicative dynamism relative to the non-emotive ordering. What I am suggesting in Yagua, on the other hand, is that within certain limits, changes in order may reflect changes in what the speaker assumes is the degree of cognitive expectation on the part of the hearer.

Chapter 7: Basic Constituent Order in Yagua: Conclusions and Implications

In Chapter 6 I argued that the basic order of major clause constituents in Yagua is Verb-Subject-Object (VSO) when full noun phrases are used. There are, however, reasons to consider that it might be something other than VSO, Subject-Verb-Object (SVO) being the most likely alternative. In this chapter I will review the evidence for and against this alternative order as basic. However, I will conclude that VSO is indeed basic, at least in typological terms, though perhaps alternative conclusions could be drawn in other theory-specific terms (Sections 7.1 and 7.2). Taking Yagua as a verb initial language, other features which do and do not correlate with the verb initial norm are reviewed (Section 7.3). The implications for Hawkins' Universal 2 are discussed. When viewed in terms of head-modifier serialization principles or degree of cross-category harmony, the Yagua facts do not appear particularly coherent (Section 7.4). However, some characteristic tendencies of 'head marking' languages (Nichols, in progress) may have historically brought about the particular cluster of properties seen in the language at the present time (Section 7.5).

7.1. Arguments in favor of SVO as basic

There are at least three reasons to consider positing SVO rather than VSO as the basic order of major clause constituents in Yagua. These are (1) the predictions of Hawkins' Universal 2, (2) the syntactic distribution of Set I clitics, and (3) possible subject - object asymmetries.

7.1.1. Hawkins' Universal 2

In Chapter 3 I argued that the following are the basic orders of (some) constituents in Yagua noun and adpositional phrases:

- (599) Head Noun + Descriptive Modifier (= 'adjective')
 Genitive NP + Head Noun
 NP + Postposition

The order of head noun and descriptive modifier could be argued against (cf. Chapter 3), but given Hawkins' (1983:13) criteria for determining what is 'basic', plus the evidence of naturally occurring discourse data, I have argued that Head Noun + Descriptive Modifier is the basic order. I have avoided using the term 'adjective' simply because what functions as a descriptive modifier is most often syntactically a nominal. Genitive NP + Head Noun is much more frequent than Set I clitic + Head Noun + Genitive NP. NP + Postposition is similarly much more frequent than Set I clitic + Postposition + NP. There is no reason to assume that the latter orders have become the norm when full noun phrases are used, either in terms of frequency or communicative function. Thus, there is no reason to suppose that the dependent noun phrases in adpositional and

possessed noun phrases are basically post-head, with the Set I clitic just being a sign inflectional agreement between the head and its post-head dependent.

Hawkins' (1983:65) Universal 2 states:

- (600) If a language has VSO word order, then if the adjective follows the noun, the genitive follows the noun; i.e.,
VSO \supset (NAdj \supset NGen).

This universal is given as an exceptionless one, ruling out the possibility that a language would have either of the following two occurrence sets as its basic orders:

- (601) VSO/Prepositional/NAdj/GenN (Hawkins' Type 4)
VSO/Postpositional/NAdj/GenN (Hawkins' Type 8)

If we understand Yagua to be a VSO language, then it is in fact a Type 8 language and Hawkins' Universal 2 cannot stand as exceptionless. Given that Hawkins' proposals are based on a respectable sample of the world's languages,¹ it is worth investigating whether Yagua might not be an SVO (or even SOV) language. Any order other than VSO would leave the Universal as exceptionless, at least relative to currently attested languages.²

7.1.2. Set I clitic reference

In Chapters 2 and 3 we saw that subjects of Type 1 clauses, genitives in possessed noun phrases, and objects of postpositions can all be expressed by a noun phrase, a Set I clitic, or both simultaneously. The three different patterns are summarized in Table 7.1: all phrasal categories. In the A pattern a noun phrase

precedes the predicate element or the head (either a possessed noun or a postposition). In the B pattern a Set I clitic precedes that element. In the C pattern a noun phrase follows what would otherwise be the B configuration. The term 'Verb' in Table 7.1 encompasses both semantically main verbs and auxiliaries.

A	B	C
SubjNP + Verb	Set I + Verb	Set I + Verb + SubjNP
GenNP + Possd N	Set I + Possd N	Set I + Possd N + GenNP
NP + Postp	Set I + Postp	Set I + Postp + NP

Table 7.1 Summary of Encoding Possibilities for Subjects of Type 1 clauses, Genitives, and Objects of Postpositions.

What is the commonality uniting the patterns seen in Table 7.1? One hypothesis is that the verb, possessed noun, and postposition are all 'heads' of phrasal categories and that the other element(s) encode the dependent member of the phrasal category. However, in most frameworks the verb is not taken to be the head of a verb plus subject constituent, in the same sense that a head noun and postposition are heads of noun phrases and postpositional phrases, respectively. The verb might, however, be understood as the most head-like surface element in the clause in that it is the constituent to which elements which have scope over the entire clause may gravitate.³

A second hypothesis is that the verb, possessed noun, and postposition are in some sense 'predicates' of their respective phrasal categories, and that the other element(s) encode an argument

of the construction. More precisely, in each case the predicate is a one-place predicate. If we take a transitive verb to be a two-place predicate, the addition of an object argument results in a one-place predicate. In some sense, addition of an object argument to make a one-place predicate must happen 'prior' to addition of the subject argument. This may be motivated on semantico-syntactic grounds, given that verbs have closer selectional restrictions and interpretation requirements relative to their objects, as opposed to their transitive subjects.⁴ It is important to note that not all one-place predicates in Yagua take Set I clitics. In particular, arguments of S_0 clauses and of predicate nominals are morphosyntactically treated in the same way as objects of transitive verbs.⁵

If one were to posit SVO as the underlying syntactic order for major clause constituents, then Set I clitic and noun phrase distribution across all three phrasal categories could be accounted for simply and neatly by rules such as the following (or their translations in whatever framework):

- (602) a. $X \longrightarrow \text{ARGUMENT PREDICATE}_{1\text{-place}}$
 b. ARGUMENT : NP
 c. ARGUMENT : Set I clitic (NP)

Where $X : Y$ is read as 'X is instantiated by Y'

Rule (a) in (602) cannot be interpreted as a standard X-bar rule (Jackendoff 1977). This is because when the PREDICATE is a verb (or auxiliary plus verb), then X cannot be understood as a verb phrase but must be understood as a clausal category (\bar{C} , \bar{C} , or C; see Chapter 2).⁶ A further modification is needed for rule (602c) such that

whenever the 'optional' NP occurs, it will be placed in post-predicate position. Whenever X in rule (a) is a clausal category, the modification to rule (602c) will have to ensure immediately post-verbal placement of the subject NP, rather than placement following verb-plus-object. Some sort of simplicity metric might suggest positing either (602b) or (602c) as the rule accounting for basic, or syntactically underlying, order of the ARGUMENT across all categories. The alternative order might then be derived by a movement transformation, yielding a more surface structure.

I believe there is major problem with stopping at rules such as those outlined in the preceding paragraph (or their translations in whatever framework). Despite their neatness, they ignore what speakers are actually sensitive to when they (subconsciously) choose a variation such as (602b) rather than (602c). The rules in (602a-c) might satisfactorily describe the syntactic possibilities. But they say nothing about what is communicatively basic. As I have argued in Chapters 3 and 6, the A and B patterns in Table 7.1 are communicatively basic for Genitive noun phrases and postpositional phrases, but the B and C patterns are communicatively basic for subject - verb constructions. The A pattern is reflected in rule (602b), the C pattern in rule (602c), and the B pattern in rule (602c) without the optional NP.

Perhaps what is largely at issue here is whether or not the more typologically oriented tradition (as represented by Greenberg, Hawkins, Mallinson and Blake, and Givón, to name just a few scholars), or the syntactic possibilities tradition (as exemplified

by much of X-bar syntax and phrase structure theories) has an exclusive right to the term 'basic constituent [word] order'. Clearly neither one does, unless we choose to disagree with Humpty Dumpty who said: 'When I use a word, it means just what I choose it to mean — neither more nor less'. That is, Humpty Dumpty knew he had a (constitutional?) right to make a term mean whatever he chose it to mean (unfortunately without regard to increased communication of his message). As long as we clearly understand what various writers mean by their terms, perhaps we do not need to argue. But in my own mind, it is not sufficient to stop with an understanding of 'basic constituent order' only in terms of syntactic possibilities, as represented in (602). Failing to explore what is communicatively basic or even most frequent in naturally occurring discourse will leave us with an inadequate understanding of the pressures behind historical change, and the specific pathways by which syntactic change may proceed. In order to have historical change, we must allow that languages can have points where they will not be forced into simple and tidy generalizations, particularly if we wish to do justice to the actual data. If we insist on simple and tidy generalizations at all points, we might as well try to maintain that Natural Serialization Principle (Lehmann 1973; cf. Chapter 1) was right to begin with. But clearly it was not.

In summary, if one were to posit the A pattern in Table 7.1 as syntactically underlying for all categories represented, then just rules (602a) and (b) would be necessary to account for all 'basic' or underlying syntactic orders, while rule (602c) accounts for non-basic

orders. However, I contend that it does not accurately reflect the cognitively and communicatively basic orders across all categories.

7.1.3. Subject - object asymmetries

As discussed in Chapter 5, subject - object asymmetries have to do with phenomena where either the subject or the object, but not both, evidences certain privileges in terms of such things as order variation, 'movement' out of complement clauses, and control of person and number indices of anaphoric elements. One possible way to account for subject - object asymmetries is to posit a structural VP constituent containing the verb and object noun phrase. This is particularly motivated if the subject - object asymmetries in question could be argued to stem directly from the fact that the subject is immediately dominated by the sentence (or clause), whereas the object is immediately dominated by the verb phrase. Positing SVO as the basic (underlying) constituent order would facilitate positing a structural verb phrase in that the verb and object are then contiguous. In Sections 2.8.2 and 5.3 I noted two possible subject - object asymmetries in Yagua: potentially different strategies for questioning subject versus object arguments of embedded clauses, and the fact that subjects but not objects can determine the person/number/animacy index of the coreferential clitics jíy- and -yũ. With regard to the latter I have argued that the real asymmetry is not between subject and object, but between Set I arguments and object. Positing a structural verb phrase consisting of verb and object does not help to resolve this problem. With regard to

question formation strategies, I do not have sufficient information to conclusively say that subjects of embedded clauses are indeed treated differently from objects.

In any case, subject - object asymmetries which may exist could possibly be accounted for on the basis of closer semantic scope and subcategorization relations holding between the verb and object, which do not hold between the verb and (transitive) subject. There is no necessary reason that I know of to argue that subject - object asymmetries have to be accounted for on the basis of a structural verb phrase constituent.

7.2. Arguments against SVO as basic

There are several arguments against positing SVO as the basic order in Yagua, at least within some of the more typological traditions outlined in Chapter 1. First, the statistical evidence presented in Chapter 6 favors basic postverbal order for both subject (both S and A) and object (O). As discussed in Chapter 3 regarding order of genitives, we should not stop at statistics but should investigate the principles motivating the observed statistics. In the case of major clausal constituents, postverbal position is unmarked whereas preverbal position is either pragmatically or semantically marked. Part of what makes something 'marked' is that it occurs less frequently. If it were to become the statistical norm, by dint of sheer frequency it would likely lose its marked status. But low frequency is not the only thing which makes preverbal positioning of subject and object pragmatically marked. As shown in Chapter 6, there

are clear non-neutral communicative intents which correlate with and motivate the preverbal orders.

Second, if we consider the criterion of degree of presuppositionality, SVO order is employed under conditions of greater presupposition than is VSO order (and similarly for other orders with preverbal nuclear constituents). VSO (or VS, VO, or V-Oblique) may be used simply to introduce information where there is little or nothing presupposed at all. But SVO (and all other orders where there are preverbal constituents) are employed when it is assumed that there is some background presupposition in the mind of the hearer which the speaker wishes to modify in some way. This background presupposition provides a context and raison d'être for focus of contrast, restatement, added detail restatement, counter expectation, and other non-neutral communicative intents.

Third, if we were to posit SVO as basic, it is still clear that objects, postpositional and other oblique phrases, adverbs, and discontinuous elements of noun phrases can also occur in preverbal position. If SVO is basic, we might expect to be able to find cases of OSV, Oblique-SV, Adverb-SV, Modifier-SV, etc. where the first element occurs in the pragmatically marked (PM) position within the \bar{C} clause. However, these do not occur. Whenever there are two preverbal constituents, one is always in the non-nuclear delimiting position. This is shown partly by \bar{C} second position clitic placement and by resumptive use of Set I or II clitics whenever the first element is coreferential with an argument of the verb. If SVO is basic, we need to account in a motivated way for why the non-occurring orders are

missing. Why is there a limit of just one pre-verbal constituent within \bar{C} ?

Related to the third objection is the fact that whenever a non-subject constituent occurs in the preverbal position within \bar{C} , if a subject phrase also occurs in the clause it must follow the verb. If we posit SVO as basic, we then have to account for why the subject is 'moved' or extraposed whenever something else occurs in preverbal position. Keenan (1977) claims that in verb medial (SVO) languages, there may be some form of subject postposing either to the end of the clause, or just to postverbal position when non-subjects are fronted. This is what one would have to argue here.

However, there is a fourth objection. The fact remains that no constituent need occur in preverbal position, and the subject is most commonly postverbal even when there is no other preverbal constituent (Chapter 6). What would motivate postposing in this case? If SVO is basic and underlying, we are faced with the rather uncomfortable distributional statement that the subject is extraposed to follow the verb when it is pragmatically UNMARKED, but is retained in its preverbal position and not moved whenever it is marked. Counter to this, whenever any non-subject elements are pragmatically unmarked, they remain in their underlying position, and are moved only when MARKED. It would be simpler to have just one rule: when pragmatically marked, the constituent in question (regardless of what it is) occurs in the preverbal PM position. When pragmatically unmarked, the constituent in question remains in its basic position.

In Chapter 1 I noted Mallinson and Blake's stipulation that basic order should be determined on the basis of transitive clauses where both arguments are definite. Givón (to appear), on the other hand, suggests that basic order should be determined on the basis of clauses where the object is indefinite and referential. Neither of these definiteness criteria really distinguishes between SVO and VSO orders, since both configurations can be used to encode definite information or to introduce indefinite-referential information. There is no necessary relationship between definiteness and one order versus the other in Yagua. In actual fact, the number of clauses with two overt noun phrases in natural text meeting either Mallinson and Blake's or Givón's criteria is extremely small and does not allow us to conclude anything with certainty.

To summarize, Hawkins' Universal 2 (Section 7.1.1) should not be taken as a reason to prefer SVO over VSO as the basic order. The Universal should be based on data and not visa versa. Subject - object asymmetries (if such exist in Yagua; Section 7.1.3) could be accounted for on the basis of subcategorization and semantic scope relations, rather than positing a structural VP constituent. The primary motivation internal to the grammar of Yagua for positing SVO as basic concerns simplicity of description relative to distribution of noun phrases and Set I clitics that encode arguments of (certain) one-place predicates, as in Rules (602a-c; Section 7.1.2). But balanced against this is complication of description when it comes to conditions of use, as I have just discussed. According to criteria such as those suggested by Hawkins (1983:13), Givón, Mallinson and

Blake, and those discussed in Chapter 6, I conclude that VSO is the most basic syntactic order whenever full noun phrases are used.

7.3. Summary of typological traits

Table 7.2 summarizes the verb initial features found in Yagua, according to the verb initial norm (VIN; see Appendix II). Some of these features, such as agglutinative and polysynthetic morphological structure, are not exclusively verb initial characteristics.

1. Basic constituent order is VSO (order of direct object and oblique may vary).
2. Fronting of NP's (or other elements) to the left of the verb is a possibility under pragmatically marked conditions.
3. There is a tendency to move given information to end of the clause (relative to the order of direct object and oblique).
4. The language is agglutinative and polysynthetic.
5. There is essentially no nominal case marking for subject and object (but Set II clitics have case/pronominal features).
6. Relative clauses are post-head.
7. Descriptive modifiers are post-head.
8. Relativization may be by deletion or by retention of a Set I or Set II clitic in the position relativized.
9. Manner adverbs generally follow the verb.
10. Auxiliaries precede the verb.
11. The dominant negative particle née precedes the verb.
12. (Some) modal formatives are affixal to the verb.
13. Embedded verbs generally follow the embedding verb.
14. Clausal objects follow the main verb.
15. There is no overt copula.
16. Placement of the yes/no question particle is specified with reference to the beginning of clause (second position within \bar{C}).
17. In information questions, the questioned NP is fronted ('movement' of questioned NPs from embedded clauses is also a possibility at least for subjects).
18. Some adverbial and complement clause types follow their main clause (though conditionals and other -tiy clauses precede their main clause).
19. Complementizers precede their clause.

Table 7.2 Summary of Verb Initial Features in Yagua

Table 7.3 summarizes features found in Yagua which are not characteristic of verb initial languages. Some of these features are not exclusively characteristic of any one constituent order type, however. For example, suffixing is much more common cross-linguistically than prefixing, probably because of universal phonological tendencies.

1. The language is almost exclusively suffixing.
2. There are postpositions and no prepositions.
3. Demonstratives and numerals are pre-head.
4. Genitive expressions are pre-head.
5. There is some agreement between the head noun and other constituents of the noun phrase (numerals and demonstratives).
6. Adverbs precede descriptive modifiers.
7. Relative pronouns occur.
8. There is a rich variety of means for nominalizing verbs, particularly using classifiers.
9. There is no productive specifically passive construction.
10. The verb agrees with just one argument (though two are potentially referenced in the clause).
11. In the comparative construction the comparative precedes the standard (though comparison is most commonly done by juxtaposition).
12. The coordinate particle jaryeey follows the coordinated phrase.
13. -Daryáju 'because' and -tyunu 'while' are subordinating suffixes (rather than prefixes).

Table 7.3 Summary of Non-Verb Initial Features in Yagua

7.4. Implications for head-dependent ordering principles and Hawkins' Universals

If we look at Yagua in terms of head-dependent ordering, then it is not a well behaved language. At least features 1, 6, 7, 10, 13, 14, 18, and 19 in Table 7.2 could be described as evidencing head-dependent order. But at least features 2, 3, 4, and 13 in Table 7.3 could be described as evidencing dependent-head order. Certain other features could be said to follow from one or the other of these ordering patterns in accord with Lehmann's 'primary concomitant' principle (Lehmann 1973). This principle states that modifiers of a basic syntactic element stand on the opposite side of that element

from its primary concomitant. For example, the object is purportedly the 'primary concomitant' of the verb. Since the object follows the verb, other verbal modifiers should precede the verb. This would motivate pre-verbal positioning of the (primary) negative particle. However, there are discrepancies in the order of noun phrase elements. For example, since the object noun phrase is said to be the primary concomitant of the verb and follows the verb, modifiers of a noun should follow the noun. This might account for post-head positioning of descriptive modifiers and relative clauses, but it does not account for pre-head positioning of demonstratives, numerals, and genitives. Even if we look at Yagua in terms of Hawkins' framework which does not predict the limited number of co-occurrence types that Lehmann (1973) does, we find that Yagua does not behave. In particular, by his own criteria as to what is basic, Yagua stands as a counter example to Hawkins' Universal 2. Consequently, we conclude that the universal is wrongly stated as an exceptionless one. It may hold true with overwhelmingly more than chance frequency, but absolute agreement with the Universal is not guaranteed.

The data base on which Hawkins' proposed universals are founded has two problems. It is not a random sample, and there are language types not represented in the sample (cf. Doris Payne 1985c). The second feature is particularly important in an adequate data base for drawing the type of exceptionless universals Hawkins proposes. The universals must in fact reflect all actually occurring co-occurrence types. Insofar as even one language's co-occurrence set is not

represented in the sample, one might draw the erroneous conclusion that certain universals are exceptionless. This is apparently what has happened in the case of Universal 2.

Perhaps one counter example does not constitute much of an exception and we can still say the universal is 'nearly exceptionless'. But the degree to which it stands as 'nearly exceptionless' awaits further research. Additional data from the Amazon area should contribute significantly to such study. There is at least one pocket of verb-initial/postpositional languages in the western Amazon area. This includes Yagua, Taushiro (genetic relationship unknown; Alicea 1975), and the Arawakan languages Baure (Keenan 1978), Matsiguenga (Betty Snell, personal communication), Nomatsiguenga (Wise 1971), Caquinte (Kenneth Swift, personal communication), some Asheninca dialects (David Payne, personal communication), and Amuesha (Martha Duff Tripp and Mary Ruth Wise, personal communication). It is worth pointing out that Hawkins has already noted that his Universal 3 must be taken as statistical in its basic form. This universal is: $PREP (NAdj NGen)$.⁷ The fact that both Universals 2 and 3 are best taken as statistical (in their simplest formulation) suggests that the degree to which all of the proposed universals stand as exceptionless or even 'nearly exceptionless' merits further documentation.⁸

7.5. Yagua as a head marking language

Although head - dependent serialization principles do not make much sense out of the Yagua data, and although Yagua should not exist according to Hawkins' Universal 2, there is another framework which may account for at least some of the co-occurring features seen in Tables 7.2 and 7.3. This is Johanna Nichols' notion of head marking versus dependent marking languages (Nichols, in progress). Head marking and dependent marking have to do with the presence and location of overt morphological marking of syntactic relations: are such relations marked on the head or on the dependent element in a syntactic phrase? Briefly put, a head marking language marks dependency relations on the head element in a given construction. A dependent marking language marks such relations on the dependent element. Languages may evidence a mixture of head and dependent marking. At certain points of the grammar they may be neutral with regard to head versus dependent marking, or they may mark both the head and the dependent of certain constructions.

As discussed in Section 3.2.3, Nichols defines the head of a construction as 'the word which governs, or is subcategorized for, or otherwise determines the possibility of occurrence, of the other. It determines the category of its phrase.' This definition yields indeterminate conclusions when it comes to differentiating head and modifying nouns in Yagua noun phrases, and I have amplified it with the discourse based notion of 'pragmatic head'. At the clause level, Nichols considers the verb and/or auxiliary verb to be the head, perhaps because it is the verb which determines the possibility of

occurrence of subject and object (and other) relations. That is, in naturally occurring discourse, occasionally noun phrases can be simply juxtaposed in a paratactic way to other constituents with ellipsis of understood predicates. But when such phenomena occur, the grammatical relations of the overt elements are potentially unclear if not non-existent. In this sense it is the presence of a verb or predicate which guarantees or forces the assignment of grammatical relations to accompanying noun phrases. With regard to the verb phrase, Nichols does not suggest that the verb plus object preferably form a syntactic constituent separate from the subject. This accords well with the facts of Yagua, both in terms of its VSO order, and the difficulties in trying to motivate the object's status as the exclusive 'primary concomitant' of the verb, as opposed to the subject (cf. Chapter 1).

In Nichols' terms the following Yagua constructions evidence head marking:

At the clause level, the verb and/or auxiliary can be marked for the presence and animacy, person, and number of subjects by means of a Set I clitic (Section 2.1.1.1). The subject noun phrase is not marked for case, which would be a type of dependent marking.

At the clause level, the verb is marked for the presence of a semantic instrumental or comitative object (Section 5.10.2). The direct object is not marked for case.

Within the postpositional phrase, the postposition is marked for the presence and animacy, person, and number of the 'pronominal' (clitic) object of the postposition by means of Set I clitics

(Section 3.6). The object of the postposition is not marked for case, which would be a type of dependent marking.

Within the noun phrase, the head noun is marked for presence and animacy, person, and number of the 'pronominal' (clitic) genitive by means of a Set I clitic (Section 3.5). The genitive (possessor) phrase is not marked, which would be a type of dependent marking.

In contrast to the four constructions which evidence head marking in Yagua, the following two constructions evidence dependent marking:

Within the noun phrase, numeral and demonstrative modifiers are marked for the noun class of the head noun (Section 4.2). The head noun is not marked for the presence of modifiers, which would be a type of head marking.⁹

A modification is made within the relative clause such that the argument relativized on is coded only with a Set I or Set II clitic, or else all reference to the relativized argument is deleted within the relative clause (Section 2.11.4). The head noun of the relative clause is not marked for the presence of a relative clause, which would be a type of head marking.¹⁰

Nichols notes that most languages display a mixture of head and dependent marking, though generally they tend towards one type or the other. If a language is mixed, the ranking (partially) presented in Table 7.4 below describes which elements will be preferably head marked. The higher a construction is in the table, the more likely it is to be head marked cross-linguistically. Conversely, the lower a construction is in the table, the more likely it is to be dependent

marked. There is an implicational relation such that in any given language if at some point a construction is dependent marked, everything below it in the ranking is predicted to evidence dependent marking. If a particular construction evidences neither head nor dependent marking, or evidences both, it does not violate the implication. For example, if a language has head marking in adpositional phrases, then it will also evidence head marking in genitive phrases and at the clause level. But if a language has dependent marking at the clause level, it will have dependent marking everywhere.

In adpositional and genitive phrases there is also a ranking between dependent 'pronouns' (I would also include clitics) versus dependent nouns. If the presence and relationship of full noun phrase arguments are marked on the head of the phrase, then pronominal arguments will also be marked on the head. But the reverse implication does not hold: if pronominal arguments are marked on the head, full noun phrase arguments may or may not be marked on the head. In Table 7.4 I use the term 'modifier' to broadly include any non-genitive modifiers of noun phrases. (Nichols uses the term 'adjective' instead of 'modifier', which perhaps may not include numerals and demonstratives. She does not discuss numerals and demonstratives relative to head marking versus dependent marking.)

FAVORED MARKING	LEVEL	CONSTRUCTION	SUBTYPE
↑ Head	Clause	Governed argument	
		Subcategorized ungoverned argument	
	Phrase	Genitive	dependent pronoun dependent noun
Adpositional		dependent pronoun dependent noun	

↓ Dependent	Phrase	Modifier + Noun	
	Sentence	Relative construction	

Table 7.4 Partial Ranking of Head/Dependent Marking Patterns (adapted from Nichols, in progress)

The line in Table 7.4 marks the position in the ranking at which Yagua constructions switch from head marking to dependent marking. The Yagua data is completely in line with Nichols' hypothesis. 'Pronominal' arguments (the functional equivalent in Yagua are indicated by clitics) are marked on the head at the level of the clause, the genitive phrase, and the adpositional phrase (recall that for Nichols the verb is the head of the clause). On the other hand, noun phrase arguments in all these constructions can be said to be marked on the head only if they occur in the C pattern given in Table 7.1. Otherwise they are not marked on the head.

Numerals and demonstratives are both dependent marked (but the presence of a descriptive modifier is not necessarily marked either on the head or dependent element). Relative clauses can be said to be dependent marked in the sense that a modification is made inside the

relative clause rather than on the head noun within the main clause.

How does this relate to the question of constituent order? Based on her 60 language sample, Nichols concludes that head marking morphology favors verb initial order, while dependent marking morphology disfavors it. That is, verb initial languages fall more heavily in the head marking group than in the dependent marking group. She says:

This may have a functional motivation: if the verb comes first in a head-marking language, then the grammatical relations (which are marked on the verb) are established at the outset; if the nouns come first in a language having at least some dependent-marking morphology, then the grammatical relations (which are marked on the nouns) are established at the outset. Establishing grammatical relations at the beginning is communicatively efficacious in that it presumably streamlines hearer processing.

There is not such a strong correlation between marking type and order of elements within noun phrases. This may be because grammatical relations within a noun phrase are not as communicatively crucial as grammatical relations at the clause level.

In contrast to verb initial order, Nichols notes that SOV order is frequent among both head marking and dependent marking languages. We might hypothesize that at an earlier stage Pre-Yagua or Proto-Peba-Yaguan was an OV plus dominantly head marking language. An earlier OV order is supported by the strongly postpositional pattern, by the genitive + noun order, and also by the nature and extent of verbal suffixation. Most if not all of the BOUNDED MOVEMENT, UNBOUNDED MOVEMENT, IMPERFECTIVITY, the causative -tániy, and the potential/optative -rúny suffixes must stem etymologically from

verbs. If Nichols is right about head marking being a predisposing factor for development of verb initial order, we then have an explanation for some of the mixing of features that we see in Yagua at the present time. In particular, it constitutes some degree of explanation for the (apparently rare) verb initial plus postpositional combination. Nichols also hypothesizes that head marking languages have a tendency towards sparse use of noun phrases, i.e. they tend to be 'V-only' languages, given that arguments are indicated on the verb. The extent to which this is true cross-linguistically needs further verification based on quantified text studies. But it is certainly true of Yagua (Chapter 6).¹¹

The problem Yagua presents for Hawkins' Universal 2 is not the combination of VSO plus postpositional orders, but the combination of verb initial order with Noun + Descriptive Modifier and Genitive + Noun orders. The Noun + Descriptive Modifier order is in line with a consistent verb-initial type, but the Genitive + Noun order corresponds to a postpositional type. Greenberg (1963:100) suggests that the order Noun + Adjective is more dominant cross-linguistically than Adjective + Noun, and this accounts for why SOV/Postp/GenN/NAdj languages (like Basque) are nearly as frequent as the totally harmonic SOV/Postp/GenN/AdjN type (such as Hindi). The general dominance of Noun + Adjective order may be one reason why the order of head noun and adjective is the least 'true to type' parameter cross-linguistically, and why it is the least predictive parameter: knowing the order of head noun and adjective in a given language allows us to say nothing about probable order in other categories

(Comrie 1981:93). It is worth noting that both of Hawkins' universals which (now) have attested exceptions (Universals 2 and 3) are the universals for which the more dominant Noun + Adjective order is taken as an implicational precedent for Noun + Genitive order:

(603) Universal 2: 'If a language has VSO word order, then if the adjective follows the noun, the genitive follows the noun; i.e., VSO \supset (NAdj \supset NGen).' (Hawkins 1983:65)

(604) Universal 3: 'If a language has Prep word order, then if the adjective follows the noun, the genitive follows the noun; i.e., Prep \supset (NAdj \supset NGen).' (Hawkins 1983:66)

On the other hand, Hawkins' Universals 1 and 4 have the less-dominant Adjective + Noun order as an implicational precedent:

(605) Universal 1: 'If a language has SOV word order, then if the adjective precedes the noun, the genitive precedes the noun; i.e., SOV \supset (AdjN \supset GenN).' (Hawkins 1983:64)

(606) Universal 4: 'If a language has Postp word order, and if the adjective precedes the noun, then the genitive precedes the noun; i.e., Postp \supset (AdjN \supset GenN).' (Hawkins 1983:67)

But if Noun + Adjective order is dominant over Adjective + Noun, we might not be quite so surprised to see that the former is not an implicational precedent for the order of genitive and noun: it will have a tendency to occur regardless of other orders.

One further hypothesis can be made about the order of head noun and genitive in Yagua. In the great majority of languages in Nichols' sample 'possessives precede their heads regardless of [head versus dependent] marking type'. This suggests (though it needs further investigation in a better language sample) that Genitive + Noun order may be more dominant than Noun + Genitive order.¹² We may further

hypothesize that languages tend to retain dominant orders longer than non-dominant ones. One empirical indicator of this would be greater statistical prevalence of a dominant order in naturally occurring text material at some point in history even when this order was dis-harmonic with basic orders in other phrasal categories in the language in question. If the C pattern in Table 7.1 for genitive noun phrases were to become increasingly frequent, we would have a move towards a more harmonic situation overall, but a move away from the potentially dominant Genitive + Noun order. At the present time, however, the potential dominance of Genitive + Noun order may be one contributing factor to the highly dis-harmonic state of the language.

I have attempted to present facts of the structure of Yagua as they are, drawing from different theoretical approaches where such seems appropriate, rather than explicate the data strictly in terms of a particular model. The Yagua facts should nevertheless be of relevance to broader theoretical formulations about constituent order co-occurrences, possible constraints on historical change, and aspects of morphological and syntactic theory. The importance of data from all language types and areas of the world cannot be underestimated in the process of theory construction. It seems too often true that methodological commitments and state-of-the-art pragmatism exert more influence on theory construction than do data. In any scientific enterprise, hypotheses and methodologies must be taken as disposable primitives which are to be set aside or modified as further data so indicates. Insofar as the Yagua data I have presented here are correct, they should contribute significantly not

only to our knowledge of Amazonian languages, but to our knowledge of
Language itself.

NOTES TO CHAPTER 7

¹ However, Tomlin (n.d.) and Doris Payne (1985c) discuss problems with the type of data base on which Hawkins has based his universals.

² In Chapter 3 I briefly noted Harrison's (1983) claim that Guajajara (Tupi-Guarani) is also a Type 8 language, and thus an exception to Hawkins' Universal 2. As I noted in Chapter 3, it may be that Harrison's conclusions about Noun + Adjective order are based strictly on bound modifying roots. If so, it may be that the basic order of syntactically distinct noun and adjective elements simply cannot be determined, and Guajajara has no implications whatsoever for the universal.

³ Cross-linguistically this is not the only possibility. In many languages such information of clause-level scope gravitates to 'second position' and is encoded in second position clitics. In Yagua, second position clitics encode some mood and aspectual information, but other such information is conveyed in the verb. As we will see shortly, Nichols (in progress) does view verbs (and/or auxiliaries) as heads of clauses.

⁴ See Note 4 of Chapter 1 and Section 5.3. It does not seem to me that this operation of deriving one-place predicates from two-place predicates by addition of object arguments should necessarily predict anything about hierarchical versus 'flat' syntactic constituent structure.

⁵ T. Payne (1985) has discussed affinities between subjects of S₀ clauses and objects of transitive clauses, which correlate with isomorphism of morphosyntactic encoding. Further, Tom Payne (personal communication) has pointed out to me that if subjects of predicate nominals were marked with Set I clitics, predicate nominal constructions would be formally isomorphic with genitive constructions, resulting in significant ambiguity.

⁶ Insofar as the verb itself (plus clitic references) can constitute a clause in Yagua, then X and the PREDICATE might be seen as members of same phrasal category even when the PREDICATE is a verb. That is, X could be recast as X' and PREDICATE could be recast as X across all three phrasal categories.

⁷ Hawkins 1979 and 1980 presented Universal 4 as also statistical. This states that POSTP (AdjN) NGen). In his 1983 work, however, Hawkins reclassifies it as non-statistical based on reclassifying the Daghestan languages of the Caucasus as Type 15 (SVO/Postp/AdjN/GenN) rather than Type 14 (SVO/Postp/AdjN/NGen).

⁸ The distinction between whether a given principle is nearly exceptionless rather than completely exceptionless may have

consequences for theories about the human linguistic facility. I will not begin to explore these here. If we recognize Hawkins' principles as nearly exceptionless rather than absolutely exceptionless, however, Hawkins' (1983) claims about restrictions on historical change are rendered empty. If an ordering principle is nearly exceptionless, we cannot guarantee that a given language did not pass through a highly 'inconsistent' co-occurrence stage, even though the co-occurrence set in question might be statistically rare. But as I have suggested here, the degree to which Hawkins' universals are 'nearly' exceptionless merits further serious study.

⁹ Although it is possibly rare, Nichols cites Tadjik Persian and Shuswap as instances where head nouns are marked for the presence of attributive modifiers.

¹⁰ Again though it is possibly rare, Nichols cites Navajo and Arizona Tewa as instances of head-marked relativization.

¹¹ Several studies have suggested that main clause constituent order may be the last thing to change historically, after adpositional, noun phrase, relative clause, and other subordinate clause orders (cf. Antinucci et al. 1979, Hyman 1975, Li and Thompson 1974). Many more studies are needed before I would want to conclude that this is indeed a preferred tendency governing relative changes in order, however. Ed Keenan (personal communication) has pointed out the case of Amharic which has many OV features and which is SOV historically. However, it has verb initial features at the clause level due to contact with surrounding languages. In a head marking language like Yagua which 'avoids' noun phrases, it seems plausible that a tendency toward verb initial order in naturally occurring discourse might develop prior to fundamental syntactic changes in other phrasal categories. I leave this as nothing more than a hypothesis for the present.

¹² However, Ed Keenan (personal communication) has noted that in his experience, VO and Noun + Genitive are good correlates of each other.

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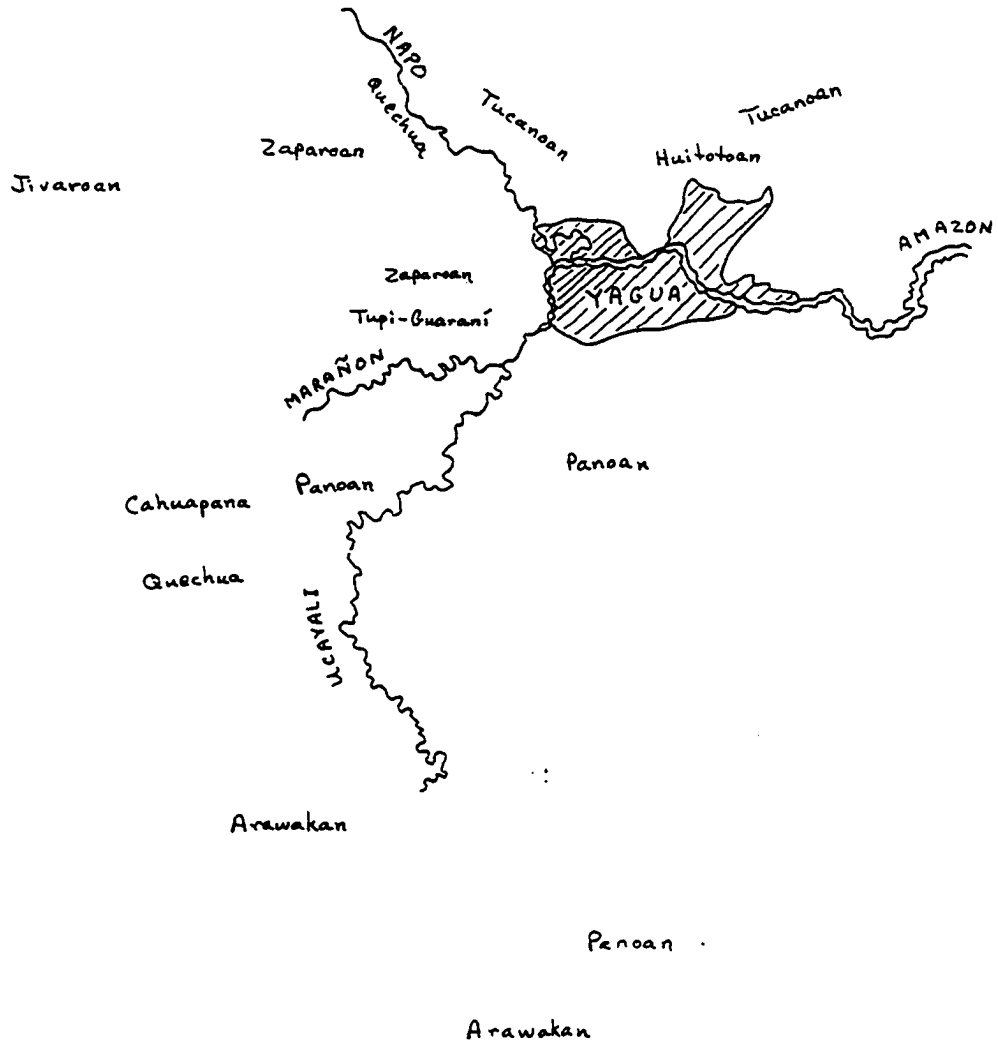
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Appendix I: Yagua Territory and General Location of Selected Neighboring Language Families



Appendix II: The Verb Initial Norm

As far as I know, there is no published statement of features typically found in verb initial languages. Keenan (1978) on the syntax of subject final languages is perhaps the nearest approximation to such a statement. In this appendix I include a number of observations extracted from Keenan (1977) 'Summary of Word Order Typology', and from Keenan (1979a) 'Word Order Typologies: The Verb Initial Typology'. I have recast the observations in complete sentences and made other changes of an editorial nature.

1. General. Verb initial languages are largely, though not entirely, the mirror image of verb final languages.

2. Morphology

2.1 Verb initial languages evidence significant prefixing, though normally there is some suffixing as well. There is a possibility of ambi-fixing (discontinuous affixes), and a somewhat greater than chance tendency for discontinuous demonstratives.

2.2 Verb initial languages may be agglutinative or polysynthetic.

3. Basic word order

3.1 Verb initial languages are comprised of the following types:

- [1]. Verb initial plus free order of full NP's. (Tagalog)
- [2]. V-DO-S-Obl (Fijian, Toba Batak)
- [3]. V-DO-Obl-S (Malagasy, Tzeltal)
- [4]. V-S-DO-Obl (Celtic, Eastern Nilotic, Polynesian, Jacaltec)

Type [4] is by far the most common.

3.2 Freedom. Fronting of subject NP's to the left of the verb is always a possibility, though often it is morphologically marked in some way (not necessarily on the NF). The order after the verb is frequently rigid, though sometimes quite free as in Tagalog and, to a lesser extent, in Chinook.

4. Sentence level syntax

4.1 Topicalization. Topicalization may be done by fronting, though there is a tendency in Nilotic to move old information to the end of the clause.

4.2 Focussing. Focussing of information as in a cleft or information question is done by fronting. Often this may be accompanied by

particles separating the subject from the rest of the clause. The result is always pragmatically marked, i.e. emphatic, contrastive, focussed, etc.

4.3 Comparisons. The comparative form precedes the standard. The comparative marker is commonly a verbal form, or else an adposition. Thus, John is taller than Bill may be expressed as Tall John from-Bill, or as Tall John exceed Bill.

4.4 Questions

4.4.1 In yes-no questions the question particle, if any, occurs sentence initially.

4.4.2 In NP questions, a questioned NP is always frontable and this is the normal pattern. It is possible, but less normal, to leave the questioned NP in the position questioned. A few cases of rightward movement of question words are attested, but there is no attested tendency for the question word to attract to the normal DO position (as is the case for verb final languages).

4.5. Subordinate clauses and sentence complements.

4.5.1 It is very common for many types of subordinate clauses to be finite.

4.5.2 Subordinating markers such as complementizers, nominalizers, and subordinate conjunctions precede their clauses.

4.5.3 Sentences which are subordinate to verbs, adjectives, or nouns invariably follow the element to which they are subordinate.

4.5.4 Adverbial subordinate clauses usually follow their main clauses. For example Will leave John because is tired Mary occurs for John will leave because Mary is tired. However, frontability of conditionals is likely universal (cf. Greenberg 1963).

4.6 Coordinate sentences are commonly expressed as [S and S]. [S, S and] is not attested. Perhaps the existence of overt coordinate conjunctions at the S level, especially or, is less well attested than in verb medial languages.

4.7 Speech act indicators (e.g. question particles, etc.) are normally sentence initial, though other positions are possible.

5. The noun phrase

5.1 Case marking

5.1.1 All major NP's may be case marked (Tongan, Nandi), but it is very common for most major NP's to carry little or no nominal case

marking. Where affixal case marking occurs, it is more likely to be prefixal than in verb final languages, but suffixing is still fairly common.

5.1.2 Where case marking exists it is normally done by prepositions (though some Amerindian languages are exceptions here, such as Machiguenga and Quileute, which have postpositions).

5.1.3 Verbal case marking is attested to a very significant degree. That is, verbs carry affixes indicating that an instrumental, goal locative, benefactee, etc. is present, and the corresponding full NP's carry no adpositions or distinctive case marking.

5.1.4 As with verb final languages, but in distinction to verb medial languages, case marking (and verb agreement) may follow an ergative pattern.

5.2 Adjectives

5.2.1 The demonstrative, numeral, and qualifying adjective follow the common noun in that order or its mirror image (Adj+Num+Dem).

5.2.2 There is probably less agreement with common nouns than in verb final languages, especially case agreement.

5.2.3 Adverbs follow adjectives (but needs further checking).

5.3 Articles

5.3.1 The presence of definite articles distinct from demonstratives is much more common than in verb final languages.

5.3.2 The existence of several articles (definite, indefinite, specific, plural, proper noun) is much more common than in verb final languages (e.g. Maori, Fijian).

5.4 Possessors: With great regularity Possessor NP's follow the head NP, as in father of John rather than John's father.

5.5 Relative clauses

5.5.1 The dominant order is always postnominal.

5.5.2 Occurrence of personal pronouns in positions relativized is fairly common, though relativization by deletion is still the most common strategy.

5.5.3 In distinction to verb final languages, co-relatives are not attested [Note: But see Yagua].

5.5.4 Like verb final languages, but in distinction to verb medial languages, relative pronouns which code the case of the position relativized are rare. It is less rare than in verb final languages, however (e.g. Tamazight, Berber).

5.5.5 Relative pronouns which agree with the head noun in noun class and sometimes even case are attested (e.g. Classical Arabic, Nandi).

5.5.6 In distinction to verb final languages, internally headed relatives are not attested, though the phenomenon is not well studied.

6. The verb phrase

6.1 Tense/aspect, passive, inchoatives, causatives, negation, modals, desideratives and volitionals may appear marked on the verb. There is significantly more prefixing in verb initial languages than in verb final ones, and very possibly more ambifixing and infixing. There is, to my knowledge, always some suffixing, however.

6.2 If expressed by morphemically independent forms, modals, auxiliaries (if such exist), negative particles or words, desideratives and volitionals always precede the main verb, and may themselves have independent verbal morphology. (This may also be true for tense/aspect, passive, inchoatives, and causatives.) The strength of the order correlation here is better than its converse for verb final languages.

6.3 Manner adverbs follow the verb if they are a distinct category (which often they are not).

6.4 Sentential objects always follow the subject and are very commonly finite as opposed to the more usual non-finite/nominalized treatment the receive in verb final languages.

6.5 Sentential objects are never embedded. They normally follow the main sentence but may precede, especially in direct quote contexts.

6.6 Verbal forms subordinate to the 'main' verb (e.g. complements of verbs like want, try, etc.) always follow the main verb, and are commonly finite.

6.7. Causativized verbs follow the causativizing verb.

6.8 'Backward' equi-deletion may occur. That is, 'want John go' or 'want-go John' may occur for 'John wants to go'. This is never a possibility in verb final languages.

6.9 There is possibly less rich means for nominalizing and definitizing verb phrases than in verb final languages. On the other hand, in many but not all verb initial languages the verbal complex

seems historically to be a nominal construction, at least in part (Middle Egyptian, Welsh, Malagasy, Philippine languages, Mayan).

6.10 Verb initial languages always have a passive voice and it is almost always marked in the verbal morphology (rather than by a serial verb construction as in Chinese, for example). It may be marked by a verb plus nominalization as in 'John receive hitting from Bill' (Tzeltal, Mayan).

6.11 With possibly greater than chance frequency, the verb in verb initial languages either agrees with no NP's, or with two NP's (both subject and direct object, or sometimes subject and indirect object).

6.12 Verb initial languages normally have no overt copula.

2. Ratyęęerajáy jíita rumusiy jiyu roorimýúju.
 ray-tąaryą-jáy rumu-siy rooriy-mu-jű
 1SG-return-PROX2 JIITA there-AB here house-LOC-AL
 'I arrived from there here at the house'.
3. Rąąsaachąąsiy jíita.
 rá-jasaacha-jásiy
 INAN-dawn-PROX1 JIITA
 'It dawned (this morning)'.
4. Rayąąsiy jíita ránaachọọ.
 ray-jiya-jásiy rá-naachọọ
 1SG-go-PROX1 JIITA INAN-towards
 'I went towards it'.
5. Rjítachéésiy jíita rúúva
 ray-jitay-siy-jásiy riy-úva
 1SG-say-DEPART-PROX1 JIITA 3PL-DAT
 'I said to them upon leaving'
6. "Trámpa rąą junúudyíiy".
 ray-ą junúuy-díiy
 trap 1SG-IRR see-PRIORATIVE
 "The trap I'm going to see first".
7. Rayąąsiy (a las seis de la manafia creo rayąąsiy).
 ray-jiya-jásiy ray-jiya-jásiy
 1SG-go-PROX1 1SG-go-PROX1
 'I went (at six in the morning I believe I went)'.
8. Rjímúufuvaajásiy jíítarà ríicya.
 ray-jimúuy-nuvaa-jásiy
 1SG-see-upon:arrival:there-PROX1 JIITA-INAN net
 'I saw upon arrival the net'.
9. Jáą jarírya rápuų.
 jariy-rà
 water under-INAN floats
 'The floats were under the water'.
10. Jásiy savichąąsiy ádnmujų quivą.
 sa-vicha-jásiy ádna-nu-jųy
 there 3SG-be-PROX1 two-CL:ANIM:SG-two fish
 'There were two fish'.
11. sarra jiryá
 sara-ra jiy-ra
 hard-CL:NEUT DEMO-CL:NEUT
 'They were hard (scaled) ones.'

12. rúúnay muusirya,
 muusiy-ra
 red tail-CL:NEUT
 'colored tail ones,'
13. játiy r̥ə̀t̥achara
 riy-j̥t̥ay-sara
 that 3PL-say-HABIT
 'that they call'
14. "p̥ij̥yuru quiiv̥á-níí"
 (name) fish-3SG
 'he is a p̥ij̥yuru fish'.
15. R̥ij̥m̥új̥ésiy j̥íita m̥úy sayan̥új̥.
 ray-j̥im̥úy-j̥ásiy sa-yan̥új̥
 1SG-see-PROX1 JIITA there 3SG-beyond
 'I looked there beyond him (the fish)'.
16. Sa-p̥ə̀ə̀y nurut̥ú-súmaa.
 3SG-float alligator-big
 'A big alligator floated'.
17. R̥ə̀s̥ə̀s̥ə̀siy j̥íita ravyátaraníí:
 ray-jasa-j̥ásiy ray-vátara-níí
 1SG-signal-PROX1 JIITA 1SG-woman:without:children-3SG
 'I signalled him to my wife'.
18. /ə̀ə̀ n̥úy nurut̥ú!"
 j̥iy-ə̀ jun̥úy
 2SG-IRR look alligator
 "Look at the alligator!"
19. Nurut̥ú r̥əsarij̥ésiy r̥íicya.
 r̥á-sariy-j̥ásiy
 alligator INAN-hold-PROX1 net
 'The alligator the net held'.
20. M̥útyiy díifunta sanich̥ə̀s̥ə̀siy váriy.
 díiy-nu-nta sa-nicha-j̥ásiy
 like die-CL:ANIM:SG-seem 3SG-be-PROX1 then
 'Like a dead one he seemed then'.
21. Sap̥íitaday náav̥áj̥y̥.
 sa-p̥íita-day náav̥áy-j̥y̥
 3SG-throat-DAY up-AL
 'His throat was upwards'.
22. R̥ə̀ç̥ə̀d̥ə̀ásiy j̥íita muf̥uv̥iim̥új̥uníí.
 ray-s̥ə̀ç̥ə̀nu-j̥ásiy muf̥u-viimu-j̥y̥-níí
 1SG-lift-PROX1 JIITA canoe-inside-AL-3SG
 'I lifted him into the canoe'.

23. Rįmńujęsiy jįita saniisimyu.
 ray-jimńuy-jąsiy sa-niisimyu-mu
 1SG-look-PROX1 JIITA 3SG-eye-LOC
 'I looked in his eye'.
24. Nęę junńufńunuuday.
 junńuy-nu-nuuday
 NEG alive-CL:ANIM:SG-anymore
 'He was not an alive one anymore'.
25. Rafiy supatąąsiy jįita rńicyąąchifńi.
 ray-niy supata-jąsiy rńicya-jachiy-nńi
 1SG-MALF extricate-PROX1 JIITA net-there:from-3SG
 'I tried unsuccessfully to extricate him from the net'.
26. Sńrra rńsarijęsiy nńujįiy sanrńutąąsa,
 sńra-ra rń-sariy-jąsiy nńu-įiiy sa-nurńu-tąąsa
 tight-CL:NEUT INAN-hold-PROX1 near-place 3SG-nose-middle
 'Tight it held near the middle of his nose'.
27. Rafiy jįintanńi "ti"
 ray-niy jįinta-nńi
 1SG-MALF loose-3SG
 'I tried unsuccessfully to loose him'.
28. Nęę rńsupńtaryńńy sanrńutąąsa.
 rń-supńta-y-ńńy sa-nurńu-tąąsa
 NEG INAN-extricate-ANTCAUS-POT 3SG-nose-middle
 'It (the net) didn't want to extricate (from) the middle of his nose'.
29. Rńńańatyadńąsiy jįitanńi tńaripyń. "Ti".
 ray-janaatyada-jąsiy jįita-nńi
 1SG-open:mouth:TRNS-PROX1 JIITA-3SG later
 'I made him open his mouth later'.
30. Nęę rńsupńtaryńńy.
 rń-supńta-y-ńńy
 NEG INAN-extricate-ANTCAUS-POT
 'It didn't want to extricate (him)'.
31. Rafiy jńątya supńtńńra.
 ray-niy sńńta-janu-rń
 1SG-MALF try extricate-INF-INAN
 'I tried unsuccessfully to extricate it'.
32. Parcheemusiy rńńańatyadńńsifńi.
 parichee-mu-siy ray-janaatyada-jąsiy-nńi
 finally-LOC-AB 1SG-open:mouth:TRNS-PROX1-3SG
 'Finally I made him open (his) mouth'.

42. Jādyéeta sātóosiy jāmura jivyimúju.
 jā-dyéeta sa-jatu-jásiy jāmu-ra jiy-viimu-jũ
 water-maybe 3SG-drink-PROX1 big-CL:NEUT COR-inside-AL
 'Water maybe he drank a lot inside his (stomach)'.
43. Jāmura rúcháásiy sapúdaa.
 jāmu-ra rá-jucha-jásiy sa-púdaa
 big-CL:NEUT INAN-be-PROX1 3SG-stomach
 'Big his stomach was'.
44. jiisuryesúmaa.
 jiisurye-súmaa
 swollen(?) -big
 '(It was) swollen big'
45. Raryesubáásiy sapúdaayu.
 raryesuma-jásiy sa-púdaa-yũ
 INAN:swell(?) -PROX1 3SG-stomach-CORO
 'His stomach had swollen itself up'.