

"Perhaps more than any other detailed recent work on an American Indian language, Professor Craig's grammar serves to make the important point that American Indian languages have an enormous contribution to make to the general study of language. Moreover, it is, in my opinion, the best documentation yet available of the syntax of a language belonging to the extremely important Mayan family."

—Kenneth Hale

Based on nineteen months of field work in Jacaltenango, Guatemala, this volume is a reference grammar of the common syntactic features of Jacalteco, giving special emphasis to the structure of complex sentences. The author analyzes such universal linguistic phenomena as relativization, pronominalization, and complementation. *The Structure of Jacalteco* also addresses such language specific phenomena as noun classifier deletion and disambiguation by deletion.

This book will be a research tool for linguists interested in language universals, a basic text for the study of descriptive linguistics and syntax, and a reference manual for all Mayan linguists. Colette Grinevald Craig received her Ph.D. from Harvard in 1975 for her study of Jacalteco syntax. She is now assistant professor of linguistics at the University of Oregon, Eugene.

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This book summarizes and evaluates the progress that has been made in Mayan glyphic studies over the past century. It is valuable both as a synthesis of Mayan research and as a detailed introduction to the script and the art of decipherment.

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Jacalteco

The Structure of Jacalteco

By Colette Grinevald Craig

The Structure of Jacaltec

Colette Grinevald Craig

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For reasons of economy and speed this volume has been printed from camera-ready copy furnished by the author, who assumes full responsibility for its contents.

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Preface

This is a reference grammar of the most common syntactic features of a non-Indo-European, unwritten language. The main focus of this study is on the structure of complex sentences, analyzed within the theoretical framework of transformational grammar. This grammar is the result of nineteen months of field work and reflects my strong feeling as a field worker that the presentation and discussion of ample and reliable data is the first step in the study of the syntax of any unknown and unwritten language.

I chose to work with Jacalteco, in part, because a very good analysis of its phonology, morphology, and elementary syntax was already available (Day, 1973). Christopher Day has been also compiling a Jacalteco dictionary, and both his grammar and dictionary were invaluable tools which allowed me to begin investigating complex sentences within a relatively short period of time. My choice was also guided by a desire to work with María Trinidad Montejo whom I had met previously when I visited the coñob 'town' of Jacaltenango. She was an extraordinary informant who gave to my field work a dimension of incomparable human experience.

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The Structure of Jacalteco

Introduction

1. JACALTEC

Jacaltec is a Mayan language spoken in the Highlands of Guatemala by approximately 15,000 people who live in the municipio of Jacaltenango, Department of Huehuetenango.

The language described in this study is the dialect of Jacaltec spoken in the town of Jacaltenango, the head of the municipio. This dialect represents the urban norm and is tinted by a level of Jacaltec/Spanish bilingualism much higher than in the two other Jacaltec dialects of Concepción and San Marcos. Jacaltec is referred to by native speakers as abxubal meaning 'language' and by Spanish speakers as 'lengua'.

2. INFORMANTS

At the time of this study, María Trinidad Montejo was forty years old, single, and had had no formal education. She was a seamstress by profession. Although she was bilingual, her strongest language was Jacaltec. She learned how to type and was very good at transcribing and translating texts. Her intuition in the language was remarkable, and she was particularly helpful in providing whole sentences when given words to place in context. She was employed full time for ten months--meaning six to eight hours per day, six days per week--and later part-time for an additional three months.

Antonio Feliciano Mendez was thirty-two years old, married, and had a sixth-grade education. He had been Christopher Day's informant and had been a translator for the parish for over ten years. He had written a didactic grammar of Jacaltec in Spanish and was very versed in the handling of

data. He was employed part-time for five months and full time for five months.

Two informants were hired part-time throughout the period of field work. They wrote texts and provided data from direct elicitation. They were Eugenio Mendoza--a bilingual twenty-five year old, part-time artist, part-time agriculture worker --and Chano Silvestre--a bilingual corn grower in his late twenties.

Numerous other informants were interviewed occasionally to obtain more data on a particular question. In addition, I interviewed a representative sample of the population including women and older people with the aid of a prepared questionnaire.

3. FIELD WORK

The data were gathered in the course of five sojourns in Jacaltenango: July-September 1970, July-November 1972, December 1972-March 1973, April-July 1973, and February-April 1974.

Different methods were used successively to collect the data. In the first phase which lasted several months, I concentrated on learning the language from María Trinidad Montejo. I emphasized everyday conversational Jacalteco and complemented my speaking practice by studying recorded texts. In the second phase which started in December of 1972, I collected a great number of texts. Some were taped by me and then transcribed by María Trinidad Montejo; others were taped, transcribed and translated by Antonio Lopez and Chano Silvestre. Still others were directly written and translated by Chano Silvestre and Eugenio Mendoza. The themes of the texts varied from cooking recipes to fables to mythological tales to sketches of everyday life in dialogue form. I analyzed all of

the texts as they were being produced and started a file of sample sentences through a two-way filing system. Sentences were classified under either Jacalteco headings--particle an, suffix -lax, verb -u--or under grammatical English headings--relative clauses, pronominalization, gapping. In the last phase I started the systematic analysis of constructions, first by working with the data produced "spontaneously" by the informants through the texts, and second by conducting direct elicitation to obtain ungrammatical sentences, study variation, and complete paradigms. The chapters of this grammar reflect my dual classification. They alternately treat universal phenomena such as relativization, pronominalization, and complementation and language specific phenomena such as disambiguation by deletion, noun classifier deletion, and boundary markers. The language specific topics treated in this study were chosen on the basis of their high frequency of occurrence.

4. PHONOLOGICAL INVENTORY

The alphabet I chose for this study is the alphabet already in use in Jacaltenango, with a few modifications; it is adapted from the Spanish writing system. The Jacalteco language has five vowels, all short:

i	u
e	o
a	

There are 27 consonants presented in the diagram below:

	bi-labial	labio-dental	alveolar	palatal	retroflexed	velar	back velar	glottal
stops	p		t			c		'
glottalized stops	b		t'			c'	k	
affricates			tz	ch	tx			
glottalized affricates			tz'	ch'	tx'			
fricatives		f	s	x	x		j	h
nasals	m		n			ŋ		
liquids			l					
			r					
glides	w					y		

See Appendix B Phonology for a discussion of alternative transcriptions used in the study of Mayan languages and for the morphophonemic rules of Jacalteco.

5. NOTATIONAL CONVENTIONS

Two systems of notation are used in the Jacalteco examples.

When the identification of specific morphemes is necessary for the analysis, an exact morphological breakdown is provided.

On the other hand, when a complete morphological analysis is

not essential to the point under discussion only a word-by-word English translation is given. This latter transcription system should contribute to an easier reading and to the feeling that Jacalteco is a real and alive language, rather than an artificial construct of a linguist.

A list of the abbreviations used in the analysis of the examples is provided in Appendix D.

6. ABOUT THE PIGS OF JACALTENANGO

Readers will probably notice the frequent apparition of pigs in the examples. Unaware of their obsessive presence in the data until I started to assemble the chapters, I left them where they were mentioned, feeling that they too represent an important component of the life of Jacaltenango. "They are an obsession, a prize possession; like problem children, a source of grief, guilt, anxiety, and love; they are put in jail, freed on bail; rued, shooed, and tattooed; if they are not watched they will eat the town's food; they are expensive to keep; they interrupt sleep; they snort in the night, causing passers-by fright; they're bought and they're sold; they're as good as gold." (Peter V. Gonigam)

1. Typological Characteristics

This chapter is an overview of the basic typological characteristics of Jacalteco, presented in the following order: 1. WORD ORDER and facts related to the verb initial nature of the language; 2. EMPHASIS; 3. QUESTION; 4. COPULAS; 5. NEGATION; 6. COORDINATION, including a discussion of gapping; and 7. COMPARATIVE CONSTRUCTION. Some of the topics included in this chapter will be mentioned only here, others will be expanded in later chapters.

1. WORD ORDER

1.1. Verb-Subject-Object

Jacalteco is a verb initial language. The surface structure word order of clauses is VS0:

(1) a. x'apni naj
V S
'he arrived'

b. xil naj ix
V S 0
'he saw her'

Within the verb form, the ordering of the clitic markers for subject and object is the reverse of the ordering of the NPs:

(2) a. *ch-in haw-il hach hayin
asp-obj subj-V S 0
me you-see you I
'you see me'

b. ch-in haw-il-a
asp-me you-see-stem aug^t
'you see me'

Sentence *(2a) represents the underlying form of (2b) before the rule of Pronoun Drop has applied.¹

The indirect object immediately follows the direct object (3). Oblique nouns such as agentives (4), instrumentals (5), and locatives (6) are the last constituents in a sentence:

(3) xa' ix te' hum wet an
gave cl/she cl/the book to me 1p
'she gave the book to me'

(4) x'elkalaxotoj ch'en melyu yu heb
was stolen cl/the money by pl
naj elkom
cl/the robber
'the money was stolen by the robbers'

(5) xinmak metx tx'i' yu hune' te'
I hit cl/the dog with a stick
'I hit the dog with a stick'

(6) xcolwa naj yit smam txofbal
help cl/he to his father market
'he helps his father in the market'

1.2. Verb Initial Characteristics of Jacalteco

1.2.1.

Jacalteco is a prepositional language:²

(7) caw ay ka' yul te' hah³
very is heat in cl/the house
'it is very hot inside the house'

(8) xahtoj naj yibañ no' cheh
go up cl/he on cl/the horse
'he climbed on the horse'

1.2.2.

As a general rule, adjectives follow the noun, as do relative clauses:⁴

(9) xinlok hune' no' cheh saj'it
I bought a cl horse white

'I bought a white horse'

(10) xawil te' mah ac tu'
you see cl house new that

'did you see that new house?'

(11) xinlo' hune' mancu yax-to
I ate a mango green-still

'I ate a mango that was still green'

(12) chawoche ch'en ome xinloko
you like cl/the earrings I bought

'do you like the earrings that I bought?'

A minority of adjectives may, however, precede the noun, and most of this limited group take the suffix -la:^{5,6}

(13) swatx'e naj hune' te' niman
made cl/he a cl big

saj-la xila
white-suff chair

'he made a big white chair'

1.2.3.

There is no question particle.^{7,8} See Section 3. Question later in this chapter for the formation of questions.

1.2.4.

There are no relative pronouns, and complementizers are sentence initial.⁹

2. EMPHASIS

2.0.

This section presents the two foregrounding constructions of Clefting and Topicalization. In both the NP undergoing the rule is preposed to the left of the whole sentence.

2.1. Clefting

Clefting is the process which brings the focus of the sentence on a particular NP. Since clefting does not introduce new information, the clefted NP may always be a full NP or a pronoun form. In Jacalteco the clefted NP is moved from its post-verbal position to a pre-verbal position and is accompanied by a clefting element ha' which appears in sentence initial position. This particle ha' is optional with full NPs but obligatory with pronouns.

Because the relative position of the subject and object NPs is the only indication of their function, the preposing of one of them raises the question of ambiguity, which is avoided by marking the verb just in case the preposed NP is the subject of a transitive verb.¹⁰ The absence of such marking on the verb indicates that it is the object that has been clefted. Contrasting sentences illustrating this point are presented below:

(14) a. smak naj ix
hit cl/he cl/she

'he hit her'

b. ha' naj xmak-ni ix
cleft cl/he hit-suff cl/her

'it is he who hit her'

c. ha' ix smak naj
cleft cl/her hit cl/he

'it is she that he hit'

(15) a. slok naj pel no' cheh c'ej'it
bought cl Peter cl/the horse black

Peter bought the black horse

b. naj pel xlok-ni no' cheh c'ej'it
cl Peter bought-suff cl/the horse black

'it is Peter who bought the black horse'

- c. no' cheh c'ej'iH slok naj pel
 cl/the horse black bought cl Peter
 'it is the black horse that Peter bought'

The same marking of the verb is found in relative clauses and questions on subjects. For a complete discussion of disambiguation marking see Chapter 7 Disambiguation.

2.2. Topicalization

Topicalization consists of placing an NP which contains new information at the head of the sentence. Therefore pronominalized NPs which correspond to old information may not be clefted.

Topicalization is not a movement rule but a copying process. After the NP has been copied to the left of the verb, the NP from which it was copied is pronominalized. There is no risk of ambiguity and no marking on the verb:

- (16) a. naj pel smak naj ix
 cl Peter hit cl/he cl/her
 'Peter, he hit her'

- b. *naj smak naj ix
 cl/he hit cl/he cl/her
 (he, he hit her)

- c. ix malin smak naj pel ix
 cl Mary hit cl Peter cl/her
 'Mary, he hit her'

- d. *ix smak naj ix
 cl/her hit cl/he cl/her
 (her, he hit her)

- (17) ix xul ewi xcoach yil ix
 cl/she came yesterday saw you cl/she
 yul txoHbal
 in market
 'the girl who came yesterday, she saw you in the market'

- (18) no' niman saj'iH cheh caw ay
 cl/the big white horse very is
 stohol no'
 its price cl

'the big white horse, it is very expensive'

3. QUESTION

3.1. Yes/No Question

As already mentioned in the section on word order, there is no question particle for the yes/no questions. The only question marker is sentence intonation:

- (19) cach bey ilo' kiH
 you went to see fiesta

'did you go to see the fiesta?'

- (20) ay hawuHtaj
 exist your brother

'do you have a brother?' (talking to a man)

- (21) tx'oij ye ha c'ul
 bad is your stomach

'are you sick?'

3.2. Wh-words

The wh-words are found in sentence initial position:

- (22) bay chach toyi
 where you go

'where are you going?'

- (23) bakin xul naj
 when arrived cl/he

'when did he arrive?'

- (24) tzet xawala
 what you said

'what did you say?'

The wh-word for humans is mac 'who'. When mac is the subject of a transitive verb (25-26) the verb receives a special marking; when it is the object of a transitive verb (27-28) or the subject of an intransitive verb (29-30) there is no marking on the verb:

(25) mac xwatx'e-n te' meʔa tu'
 who made-suff̄ cl table that

'who made that table?'

(26) mac xcach mak-ni
 who you hit-suff̄

'who hit you?'

(27) mac xawila
 whom you saw

'whom did you see?'

(28) mac chacolo'
 whom you will help

'whom will you help?'

(29) mac xul ewi
 who came yesterday

'who came yesterday?'

(30) mac x'illax yu anma
 who was seen by people

'who was seen by the people?'

The same marking phenomenon was introduced in the section on Topicalization. Again, refer to Chapter 7 Disambiguation for a detailed discussion of the marking mechanism.

3.3. Question of Object of Preposition

When objects of prepositions are questioned, the ordering preposition + noun is reversed to give wh-word + preposition as is shown in the examples below:¹¹

(31) a. chin to munil yif hin mam
 I go work for my father
 'I am going to work for my father'

b. mac yif chach to munil
 whom for you go work
 'whom are you going to work for?'

(32) a. xwa' hin melyu tet naj
 I gave my money to cl/him
 'I gave him my money'

b. mac tet xawa' ha melyu
 whom to you gave your money
 'to whom did you give your money?'

Prepositions may stay behind and not come to precede the whole sentence with the wh-word. Thus, (31b) and (32b) correspond to (31c) and (32c) below:¹²

(31) c. mac chach to munil yif
 whom you go work for
 'whom are you going to work for?'

(32) c. mac xawa' ha melyu tet
 whom you gave your money to
 'whom did you give your money to?'

The same ordering of words (wh-word + preposition) is found in indirect questions:

(33) mach xal naj mac yif xto naj munil
 not said cl/he whom for went cl/he work
 'he did not say for whom he went to work'

(34) mat wohtajoj mac tet xa'
 not I know whom to gave
 ix smelyu
 cl/she her money
 'I do not know to whom she gave her money'

Prepositions are never stranded in indirect question construction.

3.4. Question of Instrumental Prepositional Phrases

Question of instrumental prepositional phrases does not follow the pattern described above in 3.3. In declarative sentences an instrumental NP is the object of the preposition -u, as shown in (35a) and (36a). However, when an instrumental NP is questioned, it becomes the surface structure subject of the sentence, while the original human subject becomes an agent phrase, as shown in (35b) and (36b).¹³ The agent is the object of the same preposition -u used in passive construction.

On one hand instrumentals cannot be subjects of transitive verbs in declarative sentences, as will be discussed in Chapter 2 The Verb, 3. Voices. On the other hand, they cannot be treated as objects of prepositions in questions. Consider the ungrammaticality of both *(35c, d) and *(36c, d):

- (35) a. xintzoc'ic'oj te' te' yu
I cut cl/the tree with
ch'en machit an
cl/the machete 1p
'I cut the tree with the machete'
- b. tzet xtzoc'nic'oj te' te' hawu
what cut cl/the tree by you
(what cut the tree by you?)
'what did you cut the tree with?'
- c. *stzoc'ic'oj ch'en machit te' te'
cut cl/the machete cl/the tree
'the machete cut the tree'
- d. *tzet yu xatzoc'ic'oj te' te'
what with you cut cl/the tree
'what did you cut the tree with?'

- (36) a. xwacoj stel te' pulta yu te'
I put bar cl/the door with cl/the
te' an
log 1p
'I barred the door with a log'
- b. tzet xanicoj stel te' pulta hawu
what put bar cl/the door by you
(what barred the door by you?)
'what did you bar the door with?'
- c. *xacoj te' te' stel te' pulta
put cl/the log bar cl/the door
'the log barred the door'
- d. *tzet yu xawacoj stel te' pulta
what with you put bar cl/the door
'what did you bar the door with?'¹⁴

Other examples of this construction in the question form are:

- (37) a. xinmak metx tx'i yu hune' te'
I hit cl/the dog with a stick
'I hit the dog with a stick'
- b. tzet xmakni metx tx'i' hawu
what hit cl/the dog by you
(what hit the dog by you?)
'what did you hit the dog with?'
- (38) a. xinlec'ayoj no' cheh yu
I roped cl/the horse with
hune' laso an
a lasso 1p
'I roped the horse with a lasso'
- b. tzet xlec'nayoj no' cheh hawu
what roped cl/the horse by you
(what roped the horse by you?)
'what did you rope the horse with?'

Notice the marking on the transitive verb in the (b) sentences.

It is the same marking as the one found in Topicalization and Question of the subject of a transitive verb and seems to indicate that the wh-word in front of the verb functions as the subject of the sentence.¹⁵

4. COPULAS

4.0.

There are no auxiliary verbs in Jacaltec. Neither is there a copula of identity. No copula of identity appears in the completive aspect or in negative sentences:

- (39) a. sonlom naj
marimba player cl/he
'he is/was a marimba player'
- b. sonlom naj yet payxa
marimba player cl/he when time ago
'he was a marimba player some time ago'
- c. mat sonlom-oj naj
neg marimba player-suff cl/he
'he is/was not a marimba player'

However, the language does possess two copulas of existence--ay and -eyi--which will be presented below with a discussion of their semantics and syntax.

4.1. Copula of Existence ay

This copula is used in three different constructions. It expresses either mere existence, momentary location, or possession.

4.1.1. Existence

Two examples are given below of the copula ay denoting mere existence:

- (40) ay anma yul cottob mach scuy
exist people in town not teach

yuninal yitñ abxubal
their children in Jacaltec

'there are people in town who do not teach their children Jacaltec'
- (41) caw ay ka'
very exist heat

'it is very hot'

The copula ay also accompanies indefinite wh-words. This construction creates a special tone of insistence in comparison to simple sentences:

- (42) ay bay chin toyi
exist where I go

(there is where I am going)
'I am going somewhere'
- (43) ay mac xuli
exist who came

(there is who came)
'somebody came'
- (44) ay tzet chawala
exist what you say

(is there something you are saying?)
'are you saying something?'

This construction is often used in questions and answers to questions. hune' maca 'someone' and hune' tzetet 'something' correspond to the indefinite nouns mac 'who' and tzet 'what'. The wh-word bay 'where' does not have a corresponding indefinite noun 'somewhere'. Compare (43) and (44) to (45) and (46) below:

- (45) xul hune' maca
came someone

'someone came'

- (46) xawal hune' tzetet
 you said something
 'you said something'

The notion of insistence is clear in sentences like (47) and (48) below, where the meaning is 'I want/would like to':

- (47) ay tzet chin kambe tawet
 exist what I ask to you
 'there is something I want to ask you'
- (48) ay tzet xwa' tawet
 exist what I give to you
 'there is something I want to give you'

4.1.2. Momentary Location

When the copula ay combines with a directional verb, it expresses the existence of a person, an animal or an object in a certain place at a given time. I assumes movement of that person, animal or object. Objects like buildings or trees cannot enter this construction since, in the Jacaltec view of things, they are not capable of changing location:

- (49) a. ay-ach-c'oj
 exist-you-dir
 'are you here?' (traditional greeting before one enters a house)
- b. ay-c'oj ha mam
 exist-dir your father
 'is your father here?'
- (50) ay-c'oj no' waca~~x~~ bet san marcus
 exist-dir cl/the cow in San Marcos
 'the cows are in San Marcos'
- (51) *ay-c'oj yatut tiyo~~x~~ scawilal txo~~h~~bal
 exist-dir church next to market
 'the church is next to the market'

ayc'oj is composed of the copula ay, the directional ec' 'go

passing', and the suffix -oj which always follows directional verbs.¹⁶

4.1.3. Possession

The third use of the copula of existence is in expressions of possession. The copula ay is then followed by a possessed noun:

- (52) ay no' hin txitam
 exist cl my pig
 'I have a pig'
- (53) ay-xa cawa~~h~~ yunin ix
 exist-already two her child cl(woman)
 'she already has two children'
- (54) ay ha melyu
 exist your money
 'do you have money?'

4.1.4. Syntactic Characteristics

The copula ay is sentence initial and never inflected. The copula can only be preceded by the adverb caw 'a lot, much, many':

- (55) caw ay anma yul txo~~h~~bal tina~~h~~
 a lot exist people in market today
 'there are a lot of people in the market today'
- (56) caw ay hin munil
 a lot exist my work
 'I have a lot of work to do'

In three particular cases the copula disappears--

A)--in the presence of a quantifier accompanying the indefinite wh-words:

- (57) a. ay mac xa-x'apni
 exist who already-arrived
 'there is somebody who has arrived already'

- b. sunil mac xa-x'apni
all who already-arrived
'everybody has arrived already'
- c. *ay sunil mac xax'apni
- d. *sunil ay mac xax'apni

B)--if the emphasis in a possessive construction is on the quantity rather than the existence of something:

- (58) a. ay ha melyu
exist your money
'do you have money?'
- b. hantaj ha melyu
how much your money
'how much money do you have?'
- c. *hantaj ay ha melyu

C)--if an element is given special emphasis and is moved to the head of the sentence:

- (59) a. ay-xa cawañ wunin
exist-already two my child
'I already have two children'
- b. cawañ-xa wunin
two-already my child
'I already have two children!'
- c. *cawañxa ay wunin

In all three cases--presence of a quantifier, emphasis in possessive construction on quantity, and special emphasis--the semantics of the sentence have shifted from a statement of existence to the presupposition of existence and the copula of existence has been dropped.¹⁷

4.2. Copula of Manner - eyi

The copula -eyi 'to be in a certain way or condition'

expresses a state which either is a transient state of health or mood or is the result of an action.¹⁸

4.2.1. -eyi with Adjectives

Contrast the same adjective with and without the copula in the examples which follow:

- (60) a. c'ul ix
good cl/she
'she is good' (a good person)
- b. c'ul ye ix
good/well is cl/she
'she is fine' (in good health)
- (61) a. tx'oj cu bahni anma
bad we mistreat people
'it is bad to mistreat people' (in a verbal manner)
- b. tx'oj ye sat yibañ kinal tinañ
bad is on on top earth nowadays
'things are bad in the world today'
- c. tx'oj ye beh
bad is trail
'the trail is badly made'

As shown, -eyi may or may not be used in these cases depending on the intended meaning.

The use of -eyi with positional adjectives depends also on the meaning desired. Positionals used with the copula express a durable and static state, while the absence of the copula expresses a momentary position. This difference is illustrated in the sentences below:

- (62) a. c'oñan ye naj
bent is cl/he
'he is hunchbacked'

- b. c'oŋan naj
bent cl/he
'he is bent down'
- (63) a. hojan ye te' te'
in line is cl/the tree
'the trees are lined up'
- b. hojan niŋtej unin
in line little children
'the children are in line'

Certain adjectives require the use of the copula -eyi.¹⁹
They are the adjectives expressing emotional and affective
states, for instance:

- (64) tŋalalal ye naj
happy is cl/he
'he is happy'
- (65) biŋc'ulal ye ix
sad is cl/she
'she is sad'
- (66) akan c'ulal ye naj
peace is cl/he
'he is at peace'
- (67) nahul ye ix
not paying attention is cl/she
'she is not paying attention'
- (68) itz'at ye ix
smart is cl/she
'she is smart'

Most adjectives never take a copula:

- (69) a. how (*ye) naj
violent (is) cl/he
'he is violent'

- b. sac'an (*ye) naj
diligent (is) cl/he
'he is diligent'
- c. isa (*ye) naj
lazy (is) cl/he
'he is lazy'
- (70) a. kalom (*ye) naj
rich (is) cl/he
'he is rich'
- b. tŋ'op (*ye) naj
blind (is) cl/he
'he is blind'
- c. bakich (*ye) naj
fat (is) cl/he
'he is fat'

4.2.2. -eyi with Nouns

The copula -eyi is used with nouns and denotes the appearance
or resemblance of one thing to something else:

- (71) a. aŋ ye te' cape
medicine is cl/the coffee
'the coffee tastes like medicine'
- b. caw ha' ye ixim ulul
very water is cl/the atole
'the atole (corn drink) is like water'

4.2.3. Syntactic Characteristics

The copula ay differs from the copula -eyi in both position
and inflectional pattern. ay is always in initial position,
and -eyi is always in second position. While both are intransitive
verbs uninflected for aspect and while both are inflected for person,
ay takes an absolutive subject marker (A3:Ø) and -eyi takes an ergative
subject marker (E3:y).

The three characteristics of the copula -eyi--non- sentence initial position, absence of aspect marking, and ergative marker for the subject of an intransitive--correspond to the characteristics of an embedded verb:

- (72) a. hanic haw-eyi -- c'ul-He w-eyi
 how E2-are well-only E1-am
 'how are you?' 'I am fine'

5. NEGATION

5.0.

The negation word in Jacalteco is mat. It is sentence initial.

5.1. Negation of Statives

For the negation of statives, the word mat combines with the irrealis suffix -oj:

- (73) a. mat bakich-oj hach
 not fat-suff you
 'you are not fat'
- b. mat sonlom-oj hach
 not marimba player-suff you
 'you are not a marimba player'
- c. mat pet-oj xto naj
 not immediately-suff went cl/he
 'he did not go right away'

As demonstrated, the suffix is placed on whatever constituent follows the negation word, whether it be an adjective, noun, or adverb. See Chapter 2 The Verb for additional discussion of the -oj suffix.

5.2. Negation of Finite Verbs

For the negation of sentences with a finite verb, the negation word mat combines with the existential ay, yielding mach. The phonological derivation of mach from mat + ay is not very clear, but the fact that it has occurred is obvious in the

negation of possessive expressions:

- (74) a. ay hin melyu
 exist my money
 'I have money'
- b. *mat ay hin melyu
 not exist my money
 'I do not have money'
- c. mach hin melyu
 not exist my money
 'I do not have money'

Notice the absence of the suffix -oj. The suffix reappears in the sentence negation machoj 'no'. It is not present in finite verb negation:

- (75) mach chin toyi
 not I go
 'I am not going'
- (76) mach chawoche te' cape
 not you like cl coffee
 'you do not like coffee'
- (77) mach x'illax naj yu anma
 not was seen cl/he by people
 'he was not seen by people'

5.3. Restriction on Negation of Embeddings

Complement sentences with finite verbs and relative clauses are negated as illustrated below:

- (78) xal naj chubil mach xto naj
 said cl/he that not went cl/he
 'he said that he did not go'
- (79) ilc'anab naj mach xmunla tu'
 look cl/man not work that
 'look at that man who is not working'

Gerundive and infinitival types of complement sentences cannot be negated.²⁰ When possible, these aspectless clauses will be turned into complement sentences with a complementizer in order to be negated:

(80) a. *choche naj mat munlahoj
like cl/he not to work

'he likes not to work'

b. choche naj ta mach ~~x~~munla naj
like cl/he if/that not work cl/he

'he likes not to work'

(81) a. *xwilwe mat ayc'ayoj
I tried not to fall

'I tried not to fall'

b. xwilwe ta mach chin ayc'ayi
I tried that not I fall

'I tried not to fall'

(82) a. *xtac hin c'ul mat ha toyi
burn my stomach not you go

'I am sad that you are not going'

b. xtac hin c'ul ta mach chach toyi
burn my stomach if/that not you go

'I am sad that you are not going'

For a more complete discussion of the properties of the different complement sentence types, see Chapter 8 Complement Sentences.

5.4. Negative Imperative

In the negative imperative, the negation mach precedes the finite verb, and the verb does not undergo the deletion of aspect and person of the imperative mood:

(83) a. pisy-af
sit-imp

'sit down!'

b. mach chach pisi
not you sit

'do not sit down!'

(84) a. mak hin an
hit me 1p

'hit me!'

b. mach chin hamaka an
not me you hit 1p

'do not hit me!'

The intonation alone is what distinguishes negative declarative from negative imperative sentences.

5.5. Negative Exhortative

In the exhortative mood the negation word is initial and combines with the irrealis suffix -oj and with the exhortative suffix -ab to give majab.²¹ Compare the formation of the affirmative exhortative construction, with suffixation of both -oj and -ab on the verb in (85a) and (86a), to the placement of both suffixes on the negation word in (85b) and (86b):

(85) a. ta chaltu' hul-uj-ab xo' catin
if that so come-suff-suff cl Catherine

'if that is so, would that Catherine come!'

b. ta chaltu' ma-j-ab chul xo' catin
if that so neg-suff-suff come cl Catherine

'if that is so, would that Catherine not come!'

(86) a. way-uj-ab hotl mach mac ay
sleep-suff-suff we not exist who has

yoc jitl
interest in us

'would that we sleep for nobody cares about us!'

b. ma-j-ab chotl wayi mach mac
 neg-suff-suff we sleep not exist who

ay yoc jitl
 has interest in us

'would that we not sleep for nobody cares
 about us!'

6. COORDINATION

6.0.

The various aspects of coordination in Jacaltec will be presented in this section. These are: 1. coordination within a simplex sentence with the conjunction boj 'and'; 2. coordination of subjects or objects; 3. coordination of sentences by different types of conjunctions; 4. 'or' and 'but'; and 5. verb gapping.

6.1. Conjunction of Coordination boj 'and'

boj conjoins constituents of a simplex sentence and formally differs from prepositions in that it is not inflected for ergative. It conjoins NPs, PPs, adjectives, and adverbs, as shown in the examples below:

(87) chin to boj hach
 I go and you
 'I and you (we) are going'

(88) xal naj hun tu' tet naj
 said cl/he one that to cl/him
boj tet ix
 and to cl/her
 'he said that to him and to her'²²

(89) ay hin cheh saj'itl boj c'ej'itl an
 exist my horse white and black 1p
 'I have a white and black horse'²³

(90) xcin sajchi ewi boj tinaH an
 I played yesterday and today 1p
 'I played yesterday and today'

(91) *woche an ta nimejal boj yax chawute
 I like 1p that big and green you make
 te' siyotl
 cl/the armchair

'I would like you to make the armchair big and green'

The only constituents that boj cannot conjoin are verbs, unless they are in dependent aspectless form, as in:

(92) choche naj bitnoj boj caHtalwoj
 likes cl/he to sing and to dance
 'he likes to sing and dance'

(93) choche naj yila' boj stz'ibHten hej
 likes cl/he he look and he write pl
 ic'ti yitl abxubal
 stories in Jacaltec

'he likes to read and write stories in Jacaltec'

Thus, fully inflected verbs do not coordinate with boj and will be considered in Section 6.3. Coordination of Sentences.

6.2. Coordination of Subject or Object NPs

6.2.1.

The coordination of subject or object NPs requires a more detailed presentation. The use of boj indicates that the two subjects or objects are acting together and that reference is being made to a single act. This is a semantic argument to consider a sentence like (94) as a simplex sentence with coordinated NPs in the deep structure, rather than as the reduced form of two coordinated sentences:²⁴

- (94) chin to boj hach
 I go and/with you
 'we go together'
 'I go with you'

Sentence (94) means that the two agents are going together.²⁵
 The conjunct boj NP is understood as part of the subject of the verb. Note how both conjuncts cleft together as a single constituent in:

- (95) ha' naj pel boj naj xuwan xpotx-ni
 cleft cl Peter and cl John killed-suff
 hune' no' balam
 a cl tiger
 'it is Peter and John that killed a tiger'

boj is also found coordinating the subjects of reciprocal verbs:

- (96) xtzotel naj boj ix
 talked cl/he and cl/her
 'he and she talked together'
 'he talked with her'

6.2.2.

Conjoined NPs in subject or object position cannot remain conjoined. A rule of Conjunct Splitting moves the conjunction boj and the second NP to the right of the nucleus VS0, after a juncture. The rule accounts for the derivation of (97b) from an underlying sentence like *(97a):

- (97) a. *xc-__ to hayin boj ix ilo' kiñ
 asp-__ go I and cl/she to see fiesta
 b. xc-in to ilo' kiñ boj ix
 asp-I go to see fiesta and cl/she
 'I went to see the fiesta with her'
 'she and I went to see the fiesta together'

- c. *xc-off to hayin boj ix ilo' kiñ
 asp-we go I and cl/she to see fiesta
 (I and she we went to see the fiesta)

*(97a) is ungrammatical due to the absence of the absolutive case marking, and *(97c) is ungrammatical due to the failure of application of Conjunct Splitting.

Only the first one of the two conjunct NPs will ever inflect on the verb. This means that either the rule of Conjunct Splitting will have to apply before the rule of Case Marking, or that the rule of Case Marking will have to be formulated so that it takes into account only the first of the two coordinated NPs.²⁶ This question will be considered in Chapter 3 Case Marking.

6.2.3.

Finally, note that the rule of Conjunct Splitting obeys a hierarchy of persons. If the two conjunct NPs are in different persons, the one with the lowest person will be the one to be inflected on the verb. For instance a first person will take precedence over a second or third person, and a second person over a third person, resulting in the following pattern:

- (98) a. chin to boj hach 1 > 2
 I go and you
 'I go with you'
 b. *chach to boj hayin *2 > 1
 you go and I
 'you go with me'
- (99) a. chin to boj naj 1 > 3
 I go and cl/him
 'I go with him'

- b. *xto naj boj hayin *3 > 1
 goes cl/he and I
 'he goes with me'
- (100) a. chach to boj naj 2 > 3
 you go and cl/him
 'you go with him'
- b. *xto naj boj hach *3 > 2
 goes cl/he and you
 'he goes with you'

6.3. Coordination of Sentences

6.3.1.

The coordination of sentences is realized in a variety of ways. When the verb of the second conjunct is intransitive, the most common coordination is simple juxtaposition of sentences:

- (101) yul mohilal chacoj heb ix ix meXa
 at wedding put pl cl/the women table
 -- sonli heb naj winaj
 play marimba pl cl/the men
 'at weddings the women set the table and the men play the marimba'
- (102) xto ix -- maXatic'a xul ix
 went cl/she never came cl/she
 'she went and never came back'

However, if the verb of the second conjunct is transitive, it will take the suffix -n(i), as in:²⁷

- (103) yul mohilal sonli heb naj winaj
 at wedding play marimba pl cl/the men
 -- cha-ni-coj heb ix ix sat meXa
 put-suff-on pl cl/he women on table
 'at weddings the men play the marimba and the women set the table'

- (104) speba ix te' pulata -- sah-ni
 closed cl/she cl/the door open-suff
 ix te' wentana
 cl/she cl/the window
 'she closed the door and opened the window'
- (105) xichecoj ix -- slah-ni
 started cl/she finished-suff
 yunin ix
 her child cl(woman)
 'she started (it) and her child finished (it)'

The suffix -n(i) marks a weak coordination and may be found linking long chains of transitive sentences in the context of a narrative.

6.3.2.

When two sentences share the same subject the clitic -pax 'also, too' is often used for coordination:²⁸

- (106) xwa' naj -- xway-pax naj beti'
 ate he slept-too cl/he here
 'he ate and also slept here'
- (107) sunil xil naj -- sunil xabe-pax naj
 all saw cl/he all heard-too cl/he
 'he saw everything and he heard everything too'

6.3.3.

When the two sentences describe two actions in chronological order, coordination is marked by the aspect word cat 'and then' followed by an embedded form of the second conjunct:

- (108) chin toj chinabul cat
 I will go Huehuetenango and then
 hin canoj betu'
 I will stay there
 'I will go to Huehuetenango and I will stay there'

cat is not restricted to the coordination of independent

sentences but can signal the sequential aspect of a main and subordinate sentence too. See Chapter 2, 1. Aspects for examples of the different types of clauses cat may introduce.

6.4. 'or' and 'but'

6.4.1.

There are two conjunctions for the meaning 'or'. maca 'or' is used in declarative sentences, and mato 'or' in questions:

- (109) ta sje ha cul chach to ilo'
if wants your stomach you go to see
sine maca chach wayi
movie or you sleep
'if you feel like it, you go to the movies or you go to sleep'
- (110) chuluj carro tinaH maca hecal
will come car today or tomorrow
'the car will come today or tomorrow'
- (111) choH to chinabul mato choH cani
we go Huehuetenango or we stay
'are we going to Huehuetenango or are we staying?'
- (112) xa-x'ahiloj ixim awal mato maX-to
already-came up cl/the corn or not-yet
'has the corn come out already or not (yet)?'

In declarative sentences, the conjunction is sometimes macato instead of maca.

6.4.2.

yaja', with the alternative form yaj, is the conjunction meaning 'but':

- (113) chinlok hune' txitam walni yaj mach
I buy a pig I say but is not
hin melyu an
my money 1p
'I would like to buy a pig but I do not have any money'

6.4.3.

wal 'but on the other hand' is a more emphatic conjunction. It conjoins paired clauses and attracts the elements in contrast to the head of the second clause:

- (114) mach xil naj ix wal ix xil
not saw cl/he cl/her but cl/she saw
ix naj
cl/she cl/him
'he did not see her but she saw him'
- (115) Xwoche sajchoj pelota an wal cañalwoj
I like to play ball 1p but to dance
mach Xwoche an
not I like 1p
'I like to play ball but I do not like to dance'
- (116) sunil anma xpaxtoj scoñob
all people went back their village
wal hach chach cani
but you you stay
'everybody went back to their village but you are staying'

When a contrasted element is the subject of the second conjunct, a pronominal copy of it is left behind the verb. Note the second instance of ix which appears in the second clause of (114).²⁹

wal can attract two contrastive elements, for instance the subject and the object of the second verb. In this case only the subject leaves a pronominal copy behind:

- (117) swatx'e naj Xuwan hune' Xila wal naj
made cl John a chair but cl
pel hune' meXa swatx'e naj
Peter a table made cl/he
'John made a chair but Peter made a table'

6.5. Gapping

Gapping occurs in Jacaltec in the wal construction of emphatic contrast, deleting the verb of the second conjunct:³⁰

(118) a. slotoj ix hune' mancu' wal naj
eats cl/she a mango but cl/he

hune' lahanxeX slotoj naj
an orange eats cl/he

'she eats a mango but he eats an orange'

b. slotoj ix mancu' wal naj hune'
lahanxeX

'she eats a mango but he an orange'

The deletion affects both the second verb and the pronominal copy of the subject.

Gapping may operate only forward and never backward (deleting the verb of the first conjunct):

(119) *ix hune' mancu' wal naj hune'
cl/she a mango and cl/he an

lahanxeX slotoj naj
orange eats cl/he

'she a mango and he an orange he eats'

The only context in which Gapping was obtained naturally was with the wal construction.³¹ As was discussed in the preceding paragraphs, wal requires the reordering of the NP constituents of the second clause. It seems impossible to tell at this point whether Gapping occurs in Jacaltec before or after the reordering of the wal attraction rule. If it did occur after it, however, notice how the deletion rule of Gapping would have to be allowed to affect nonsymmetrical constituents, since it would apply on a string like: [V S O wal S O V.] The verb would be in initial position in the first clause but in final position in the second. In either case, the unidirectionality of Gapping can be established.

In Jacaltec Gapping operates only forward.³²

7. COMPARATIVES

7.0.

The comparative of superiority will be shown to have two constructions—the phrasal type and the clausal type. The constraint discussed by Hankamer (1973) on the movement of an element out of the clausal type applies in Jacaltec.³³

Several key words need to be defined before discussing the comparative construction. The topic is the constituent in the matrix sentence which is compared to the target, and the target the constituent which appears after the preposition or the conjunction of comparison. A phrasal comparative construction is one in which the target is an NP which is the object of a comparative preposition. A clausal comparative construction is one introduced by a conjunction followed by a clause.³⁴

7.1. Phrasal Comparative

The matrix sentence is introduced by ka' meaning 'very, more' and the target by the preposition sataj meaning literally 'in front of'. An example of the preposition sataj in a non-comparative construction is given below:

(120) x'ayc'ay ni'an unin t-a-sataj
fell little child aug_t-you-in front
'the child fell down in front of you'

Examples of comparative constructions are:

(121) ka' icham hin s-sataj naj pel
more old I him-than cl Peter
'I am older than Peter'

(122) ka' kalom naj t-a-sataj
more rich cl/he aug_t-you-than
'he is richer than you'

7.2. Clausal Comparative

In addition to the adverb ka' and the preposition sataj the conjunction haca' appears after the preposition. As shown in (123) and (124) haca' by itself means 'the way, like, how':

- (123) mat c'uluj haca' xawute ha tz'ahni.
not good the way you made you paint
bitz'ab ti'
wall this
'it is not good, the way you painted this wall'
'you did not paint this wall well'
- (124) haca' yabxubal heb naj xamicel
the way their language pl cl San Miguel
hac'tu' yabxubal heb naj soloma
that way their language pl cl Soloma
'the way the language of the men of San Miguel
is, that is the way the language of the men
of Soloma is'
'the language of the men of San Miguel is like
the language of the men of Soloma'

In the clausal comparative construction, the conjunction haca' follows immediately the preposition sataj and introduces an aspectless embedded clause, which is characterized by an ergative marker for the subject of an intransitive verb or a suffix -n(i) on a transitive verb:

- (125) ka' lembil xtz'ibli ix sataj
more slow writes cl/she prep
haca' ha tzibli
conj you write
'she writes more slowly than you write'
- (126) ka' chawoche hawilni sajach sataj
more you like you see game prep
haca' wocheni
conj I like
'you like to watch the game more than I like it'
'you like to watch the game more than I do'

Sentences (125) and (126) provided examples of comparative constructions in which the target is the subject of the second clause. Sentence (127) shows that objects can be targets too:

- (127) ka' wohtaj naj sataj haca'
more I know cl/him prep conj
hach wohtajteni
you I know
'I know him better than I know you'

In Jacalteco the clausal construction does not reduce to leave an NP alone after the conjunction. Further reduction of the verb oche 'like' of sentence (126) would yield the ungrammatical *(128):

- (128) *ka' chawoche hawilni sajach sataj
more you like you see game prep
haca' ----- hayin
conj DELETION I
'you like to watch the game more than I'

hayin is the first person independent pronoun form which would not undergo the rule of Pronoun Drop in the absence of verb.

7.3. Targets of Comparatives

Only targets of phrasal comparative constructions can be questioned (129a), clefted (129b), or relativized (129c). The three constructions have in common that they affect the target NP by movement or deletion.

- (129) a. mac ka' icham hach sataj
who more old you prep
(who are you older than?)
b. ha' naj ka' icham hach sataj
cleft cl/he more old you prep
(it is he who you are older than)

- c. wohtaj ix ka' icham hach sataj
 I know cl/her more old you prep
 (I know the woman who you are older than)

In the sentences of *(130) below, the three operations have applied to a clausal comparative construction. The ungrammaticality of such sentences is a widespread phenomenon as shown in Hankamer's discussion:³⁵

- (130) a. *mac ka' lembil xtz'ibli ix sataj
 who more slow writes cl/she prep
 haca xtz'ibli
 conj write
 (who does she write more slowly than?)

- b. *ha' naj ka' lembil xtz'ibli
 cleft cl/him more slow writes
 ix sataj haca'
 cl/she prep conj
 (it is he that she writes more slowly than)

- c. *wohtaj naj ka' lembil xtz'ibli
 I know cl/him more slow writes
 ix sataj haca'
 cl/she prep conj
 (I know the man that she writes more slowly than)

7.4. Summary

Jacalteco possesses both a phrasal and a clausal comparative construction. In both types of comparative, the matrix sentence is introduced by ka' 'more' and the target by the preposition sataj 'in front of, then'. The clausal construction makes use of the additional conjunction haca' 'how, the way' immediately following the preposition. The clausal construction does not reduce to the single target NP and does not allow Question, Clefting or Relative Clause Formation on NPs contained within it.

NOTES

1. Pronoun Drop applies to all nonemphatic first and second person pronouns which inflect either on a verb, a preposition, or a noun. See Chapter 3 Case Marking, 1.2. Independent Pronouns.

2. This fact and the following two observations (1.2.2. and 1.2.3.) conform to Greenberg's enumeration of Universals (1963).

Greenberg Universal #3: languages with dominant VSO order are always prepositional.

3. The object of a preposition inflects on the preposition and undergoes Pronoun Drop; for example:

(a) *cu-cataŋ hayoŋ E1pl-with we/us 'with us'	(b) *w-ibaŋ hayin E1-on top I/me 'on me'
(a') cu-cataŋ 'with us'	(b') w-ibaŋ 'on me'

In surface structure the preposition then looks more like a prefixed postposition.

4. Greenberg Universal #17: with overwhelmingly more than chance frequency languages with dominant order VSO have adjectives after the noun.
5. Greenberg Universal #19: when the general rule is that the descriptive adjective follows, there may be a minority of adjectives which usually precede, but when the general rule is that descriptive adjectives precede, there are no exceptions.

6. Preposed adjectives can be divided into two groups, depending on whether or not they take the suffix -la when preposed. Those taking -la form the largest group and include the following:

A. color adjectives

- (a) saj-la camix'e
white-suff shirt
'white shirt'

The preposed color adjectives may take on a derived meaning:

- (b) yax-la mancu'
green-suff mango
'unripe mango'
- (c) saj-la ha'
white-suff water
'clean water'
- (d) caj-la ha'
red-suff water
'hot water'

B. positional adjectives (i.e., adjectives with suffix -an)

- (e) hopan-la camix'e
torn-suff shirt
'torn shirt'
- (f) chac'an-la weXe
wet-suff pants
'wet pants'
- (g) lohan-la xaftab
loose-suff sandals
'loose sandals'

C. other adjectives

- (h) how-la tx'i'
rabid-suff dog
'rabid dog'
- (i) tz'il-la ha'
dirty-suff water
'dirty water'
- (j) chacan-la anma
deaf-suff person
'deaf person'

Preposed adjectives which do not take -la can be further divided into two semantic groups. One consists of color adjectives used with animals. They take a special suffix -'iŋ whether they stand before or after the noun:

- (k) ay hune' no' hin cheh c'ej-'iŋ
exist a cl my horse black-suff
'I have a black horse'

- (k') ay hune' no' hin c'ej'iŋ cheh

The other group expresses admiration, scorn or fondness:

- (l) ich 'old'
niman 'big'
xil 'used'
leje 'confused'
mattx'ixwil 'shameless'
tz'ulic 'cute'

When a noun takes several of these adjectives, they follow a determined order--ich > niman leje > mattx'ixwil:
old big confused shameless

(m) naj ich leje maŋtx'ixwil hoyom
 cl old confused shameless Todosantero
 caw elkom naj tu'
 very robber cl/he that

'ese fregado viejo sin vergüenza Todosantero
 es muy ladrón'
 'that old shameless confused Todosantero is
 a real thief'

(n) xawil ch'en ich niman ch'en tu' boj
 you saw cl old big rock that and
 te' ni'an tz'ulic mah ti'
 cl little cute house this

'did you see that big old rock and this cute
 little house?'

If these adjectives combine with the suffixed ones,
 they have to precede them:

(o) te' niman saj-la xila tu'
 cl big white-suff chair that
 'that (great) big white chair'

(o') *te' saj-la niman xila tu'

7. Greenberg Universal #10: question particles or affixes,
 specified in position by reference to a particular word
 in the sentence, almost always follow that word; such
 particles do not occur in languages with dominant order
 VSO.

8. There is a dubitative particle -mi which occurs some-
 times in questions. It cliticizes to the first word of
 the sentence:

(a) hecal-mi chuluj naj
 tomorrow-maybe will come cl/he
 'will he come tomorrow maybe?'

This particle is cognate with the question particle mi
 of Tzotzil, a close Mayan language spoken in Chiapas,
 Mexico which has an SVO word order. The particle mi is
 sentence initial in Tzotzil:

(b) mi li' ote
 Q here you
 'are you here?' (greeting)

(c) mi 'oy-xa av-ahnil
 Q exist-already your-wife
 'do you have a wife already?'

9. Such facts may be explained in terms of perceptual strategy. As Kuno (1974) argues, in VSO languages a lack of relative pronouns will not prevent one from identifying the beginning of a relative clause, and clause initial complementizers guarantee that no conjunction juxtaposition will arise.
10. Attention is drawn here to the clearly audible and visible -n(i) suffix. As will be discussed in Chapter 7 Disambiguation, -n(i) is only a secondary disambiguating feature complementing the deletion of the ergative case marker which is not "visible" or audible enough in most cases. Also, see Appendix B Phonology for the alternation xmak/smak which corresponds to the absence vs. presence of the ergative case marker.
11. This is also true of the conjunction boj 'and' NP. See Section 6. Coordination later in this chapter for the use of boj:
- (a) chin munla boj hin mam an
 I work with my father 1p
 'I work with my father'

- (b) mac boj chach munlayi
whom with you work
'whom do you work with?'

12. Also, prepositional phrases can be questioned out of embedded sentences and moved to the head of the whole sentence. In this case, too, pied-piping of the preposition is optional. The preposition is found either in second position after the wh-word or in its original post-verbal position:

- (a) xal ix chubil xil ix xcolwa
said cl/she that saw cl/she gave help
naj yih yuhtaj
cl/he to his brother

'she said that she saw him give a hand to his brother'

- (b) mac yih xal ix chubil xil ix
whom to said cl/she that saw cl/she
xcolwa naj
gave help cl/he

'to whom did she say that she saw him give a hand?'

- (c) mac xal ix chubil xil ix
who said cl/she that saw cl/she
xcolwa naj yih
gave help cl/he to

'whom did she say that she saw him gave a hand to?'

13. Within the framework of Relational Grammar (Postal and Perlmutter, forthcoming) the phenomenon of the instrumental becoming a subject would be treated as a rule of Advancement. The instrumental object of preposition would be said to advance from a non-term function and position to that of the subject. The fact that the old

subject has become the object of an agentive prepositional phrase would be predicted by the Annihilation Law. This law states that an NP which loses its function of either subject or object goes to "chômeur", a non-term function realized as an agentive phrase. See Chapter 13 Causative Constructions, 3. Indirect Causative Construction for another advancement rule.

14. tzet yu, as an expression, means 'why, what for' and example (36d) is a grammatical sentence with the meaning 'why did you bar the door?'
15. The only evidence within such a sentence for the wh-word being the subject of the sentence is that the old animate subject has been demoted. There is no positive evidence that the instrumental has been in turn promoted to subject position. The absence of ergative case marker and subsequent suffixation of -n(i) on the verb may simply indicate the absence of subject. An alternative analysis of this phenomenon is to take the notion of subjecthood as a relative one--some NPs being more subject-like than others. This analysis is expanded in "Properties of Basic and Derived Subjects in Jacaltec" (Craig, 1976).
16. All other directionals can combine with the existential copula ay. A sample of the possibilities is given below:

- (a) ay-ay-oj tx'otx' xih sat tx'otx'
is-down-suff cl/the pot on dirt
'the pot is down on the floor'
- (b) ay-il-oj tz'ayic
is-out-suff sun
'the sun is shining'

(c) ay-ah-toj naj swi' te' nah
 is-up-away cl/he its head cl/the house
 'he is on the roof of the house'

(d) ay-c-oj slem nok sat bitz'ab
 is-against-suff spider web on wall
 'there are spider webs on the wall'

17. The same phenomenon is observed with the compound verb ay -ala' 'to desire, to want to'. When it undergoes Inversion it appears after its originally subordinate verb and loses the copula ay:

(a) ay wala' chin toyi
 is I say I go
 'I would like to go'

(b) chin to walni
 I go I say
 'I would like to go'

See Chapter 8 Complement Sentences, 4. Inversion.

18. For a parallel between the stative manner constructions with -eyi and the active manner adverbial sentences with 'u 'to happen, to do' see Chapter 12 Manner Adverbial Sentences.

19. There is another type of adjectival construction with -eyi; this is the adverbial adjective formed by adding the double suffix -be-hal to a verb stem:

(a) tx'ahbehal ye xil kape
 to wash/for washing are cl/the clothes
 'the clothes are for washing'
 'the clothes are to be washed'

(b) uc'behal ye ha' ha' ti'
 to drink is cl water this
 'this water is for drinking'

20. There is one case of negation of an infinitive verb form. It is in the emphatic construction with a preposed infinitive:

(a) tzet chawu
 what you do
 'what are you doing?'

(b) cahalwoj xwu
 to dance I do
 'I am dancing'

(c) mat cahalwoj-oj xwu
 not to dance-suff I do
 'I am not dancing'

(d) mat cahalwoj-oj xwoche to sajchoj
 not to dance-suff I like but to play
 'it is not dancing that I like but playing'

(e) mat wayoj-oj xcin toyi to munlahoj
 not to sleep-suff I went but to work
 'I went not to sleep but to work'

21. In this case the derivation of the word majab from mat + oj + ab 'neg + irrealis + exhortative' is not directly accounted for phonologically. Note also the absence of the imperative suffix -aŋ in the negative imperative form and the presence of the exhortative suffix -ab on the negative compound for the exhortative construction.
22. The second preposition of conjoined prepositional phrases is sometimes deleted. However, no consistent data were obtained to determine when deletion was possible. It

seems to depend on (1) the preposition (more common deletion with -ibaH 'on top' and -alaH 'under' than with -et 'to'); (2) the person (if the first NP is a first or second person and the second NP a third person, deletion may occur, but if both objects are third person, no deletion is possible); and (3) the speaker.

23. Preposed adjectives with the suffix -la may be coordinated by boj; the suffix of the first one is optional:

- (a) laH^{an} staj kap hopan(-la) boj
 prog dry cl/the ripped(-suff) and
 chac'an-la cami^{xe}
 wet-suff shirt
 'the ripped and wet shirt is drying'

24. Two coordinated sentences referring to two distinct acts are not reduced in Jacaltec the way they may be in English:

- (a) you and I went
 (i) you and I went together: one act
 (ii) you went and I went separately: two acts

For the (ii) construction, Jacaltec has:

- (b) chin toyi chach to-pax
 I go you go-too
 'I went and you went separately'

25. Jacaltec has another construction to express the coordination of two agents. It consists of the incorporation into the verb form of a prepositional phrase composed of the preposition -et and a prefixed ergative person marker. This prepositional phrase is incorporated between the absolutive marker of the first conjunct and the verb stem. Consider the following examples:

- (a) xc-ach w-et-caH^{al}wi
 asp-A2 E1-prep-dance
 'I danced with you'
 (b) x- \emptyset -aw-et-munla naj
 asp-A3-E2-prep-work cl/he
 'you worked with him'

The case markers respect the ordering Absolutive > Ergative within the verb form as is detailed in Chapter 3 Case Marking. In the translation of native informants the object of the preposition is consistently interpreted as the surface structure subject. There is variation among speakers as to whether or not the verb form can take an audible absolutive case marker. For some people the first example above is ungrammatical, and the correct form for the intended meaning is with an independent pronoun preceding the whole verb form:

- (c) hach x-w-et-caH^{al}wi
 you asp-E1-prep-dance
 'I danced with you'
 (d) hayin x-y-et-tzotel ix
 I asp-E3-prep-talk cl/she
 'she talked with me'
 (e) *xc-in-y-et-tzotel ix
 asp-A1-E3-prep-talk cl/she
 'she talked with me'

When the absolutive marker is the third person inaudible \emptyset marker, the sentence is accepted by all speakers.

There is a reflexive form of this construction which is used either when the two agents refer to the same person or when they are morphologically identical:

- (f) x-(y)-et-tzotel s-ba naj
asp-E3-prep-talk E3-refl cl/he
'he talked to himself'
- (g) ha' heb naj x-(y)-et-bey
cleft pl cl/they asp-E3-prep-go
s-ba ilo' kin
E3-refl to see fiesta
'they went together to see the fiesta'

This construction does not allow the progressive form:

- (h) *laʔan ∅ w-et-caʔalwi naj
prog A3 E1-prep-dance cl/him
'I am/was dancing with him'

Many other intransitive verbs can enter this construction, such as oki 'to cry', sajchi 'to play', and wa'i 'to eat'. The construction is also productive with transitive verbs, in which case one of the conjuncts has to be outside:

- (i) ha' naj x-∅-w-et-__-watx'e-n
cleft cl/he asp-A3-E1-prep-__-make-suff
hune' munil tu'
a work that
'I did that work with him'
- (i') *x-∅-w-et-s-watx'e naj hune'
asp-A3-E1-prep-E3-make cl/he a
munil tu'
work that
- (j) ha' naj x-∅-w-et-__-'il-ni
cleft cl/he asp-A3-E1-prep-__-see-suff
'I saw it with him'
- (j') *x-∅-w-et-y-il naj
asp-A3-E1-prep-E3-see cl/he

In sentences (i) and (j) one of the NPs has been preposed

to the whole verb form in a clefted construction marked by the corresponding absence of one ergative marker and the suffixation of the verb with -n(i). This time the prepositional phrase has been incorporated between the object absolutive marker and the ergative subject marker of a transitive verb. The reason one of the NPs has to be preposed stems from a constraint on the number of ergative markers that a constituent may contain in the surface structure. By clefting one NP, one of the ergatives is removed from the verb form.

26. Within the framework of Relational Grammar (Perlmutter and Postal, forthcoming), the operation of Conjunct Splitting represents the change from termhood to non-termhood for the NP moved. The fact that the new non-term NP does not inflect on the verb follows automatically from the assumption that only terms inflect on verbs.
27. Besides its function of coordinating marker, the suffix -n(i) has two other functions. It marks subordination of transitive verbs and is a secondary marker of disambiguation. See Chapter 8 Complement Sentences and Chapter 7 Disambiguation.
28. -pax can be used with negation and can alternate or combine with another suffix -ca. Both suffixes have close meanings. The suffix -ca expresses a somewhat more forceful coordination:
- (a) mat yuoj smuluj naj ca
not by his fault cl not-coord.
yuoja smuluj smam naj
by his fault his father cl
'not because of him but because of his father'

(b) mat tawetoj xwa' hin c'as an
 not to you I gave my debt 1p
 mat-ca/pax tet hawixaløj to tet ha c'ahol
 not-coord to your wife but to your son
 'it is not to you that I paid my debt, nor to
 your wife, but rather to your son'

(c) mach ha melyu mach-pax/ca/ca-pax
 not exist your money not exist-coord
 hawixim xtohlan heb naj munlahom
 your corn pay pl cl/the workers
 'you do not have money nor corn to pay the
 workers'

29. The contrastive wal- Attraction rule is different from the Topicalization rule in that the former allows a pronoun to be preposed while the latter does not.

30. There is one instance of coordination reduction which occurs when subjects and verbs are identical. It could be termed a quantitative coordination since it coordinates two NPs containing numerals in the reduced form. The conjunction for such coordination is yoc, which is always accompanied by the suffix -xa 'another' on the second conjunct NP:

(a) xwil hune' no' txitam amak yoc
 I saw one cl pig patio and
 hun-xa no' yul caya
 one-other cl in street
 'I saw one pig in the patio and another in the
 street'

(b) xinlok hune' hin cheh yoc hoc'oñ-xa
 I bought one my horse and five-other
 hin txitam
 my pig
 'I bought a horse and (also) five pigs'

(c) xwil hune' no' sajcheh yoc txihal-xa
 I saw one cl deer and many-other
 no' pay
 cl fox
 'I saw a deer and (also) many foxes'

31. Gapping in the wal construction was the easiest to elicit, while Gapping in the normal [VSO VSO] word order obtained through direct elicitation seemed to be judged marginal.

32. The unidirectionality of Gapping in Jacaltec conforms to the theory of Hankamer (1971) according to which there is only forward Gapping.

33. The comparative of equality uses the positional adjective lahan 'same' and the conjunction of coordination boj 'and, with':

(a) lahan xu walni abxubal boj castiya
 same did I speak Jacaltec with Spanish
 'I spoke Jacaltec as well as I spoke Spanish'

There is no comparative of equality with adjectives corresponding to the English 'as poor as'. lahan, being itself an adjectival form, has to be followed by a nominalized adjective for a topic. The adjective takes the nominalizing suffix -il and the possessive marker of the topic. The target follows the conjunction boj and is an independent personal pronoun:

(b) lahan s-meba-il naj boj hayin an
 same his-poor-ness cl with I 1p
 'he is as poor as I am'

(c) lahan w-icham-il boj naj an
 same my-old-ness with cl/he 1p
 'I am as old as he is'

There is an alternative construction, less used, with haca 'the way' and an adjective:

(d) meba naj haca' hin
 poor cl/he the way I
 'he is as poor as I am'

34. This is the terminology used by Hankamer (1973b) in his article on comparatives, "Why there are two than's in English."
35. The languages were Latin, Greek, Hungarian, Serbo-Croatian and English.

2. The Verb

Verbal aspects, moods, voices, and modals will be presented in this chapter. While in Jacalteco these grammatical categories do not form a homogeneous inflectional system, they are presented together because of their common relation to predicates. The order of the presentation will be: 1. the four ASPECTS--completive, incompletive, progressive, and sequential; 2. the two MOODS--imperative and exhortative; 3. the two VOICES--active and passive; and 4. the MODALS.¹

1. ASPECTS

1.1. Completive

The completive aspect marker is x-, for both transitives and intransitives. x- with an inaudible absolutive case marker of third person (A3) is in complementary distribution with (x)c- in front of an absolutive case marker of first or second person (A1,A2).² This aspect is used for actions that took place in the past and, as the name indicates, are completed.

(1) x-∅-w-al t-aw-et
 asp-A3-E1-say aug^t-E2-to

'I said it to you'

(2) x-∅-aw-abe s-kan molino
 asp-A3-E2-hear E3-noise mill

'did you hear (the noise of) the mill?'

(3) xc-in a*ni yet may
 asp-A1-bathe when morning

'I took a bath this morning'

(4) bay c-ach beyi
 where asp-A2 go
 'where di you go?'

(5) xc-ach w-ila
 asp-A2 E1-see
 'I saw you'

1.2. Incompletive

The incompletive aspect marker for both transitives and intransitives is ch- in front of vowels and x- in front of consonants. It is the unmarked aspect of the language and as such is characterized by multiple uses--

A. for actions happening in the present

(6) tzet yuxin ch-in ha-teye
 why asp-A1 E2-laugh
 'why are you laughing at me?'

(7) ch- \emptyset -(y)-al naj tato mach s-melyu naj³
 asp-A3-E3-say cl/he that not is E3-money cl
 'he says that he does not have any money'

B. as a narrative present

(8) ch- \emptyset -(y)-al-ni s-mam icham naj chubil
 asp-A3-E3-say-suff E3-grandfather cl that
x- \emptyset -to heb naj xol telaj y-eba
 asp-A3-go pl cl/they in hills E3-hide
 s-ba
 E3-refl
 '...and the man's grandfather says that they used to go to the hills to hide'

C. as a habitual present, expressing general statements of repetitive, customary actions

(9) tzet ch- \emptyset -u s-watx'i ixim bitx
 how asp-A3-is E3-made cl/the tamales

babel x- \emptyset -c'och-lax-iloj ixim ixim
 first asp-A3-shell-PASS-suff cl/the corn

... lawitu' xin ch- \emptyset -'ay-toj
 ... and then asp-A3-down-go

s-txoal ixim
 E3-lime water cl

'how tamales are made: first the corn is shelled ... and then lime water is thrown on it'

(10) a. ch- \emptyset -aw-oche te' oñ
 asp-A3-E2-like cl avocado

'do you like avocados?'

b. ho' x- \emptyset -w-oche te'
 yes asp-A3-E1-like cl/it

'yes, I like them'

(11) yul coñob ti' x- \emptyset -to heb ix
 in village this asp-A3-go pl cl/the
 ix \emptyset s-tx'ah-a' s-kap s-ti'
 woman A3 E3-wash-fut E3-clothes E3-mouth

ha' niman
 water big

'in this village, the women go to the river bank to wash their clothes'

D. as a present past for actions started in the past but still continuing; in this case the incompletive is preceded in the sentence by the quantifier particle -xa 'already'

(12) hune'-xa habil ch- \emptyset -in-cuy abxubal
 one-already year asp-A3-E1-study Jacaltec

'I have been studying Jacaltec for a year already'

(13) cab-xa tz'ayic' ch-ach w-echma
two-already days asp-A2 E1-wait
'I have been waiting for you for two days already'

(14) txihal-xa te' Mah ch-Ø-in-watx'e
many-already cl house asp-A3-E1-make
'I have made many houses already'

E. to express simultaneity of action; when two verbs expressing simultaneous actions occur in the same sentence, the first is a "neutralized" form which is realized with the incompletive aspect while the second is marked with the appropriate aspect⁴

(15) x-Ø-cahalwi naj x-Ø-'ec' naj
asp-A3-dance cl/he asp-A3-go by cl/he
yul caya
in street
'he went dancing by in the street'

(16) x-Ø-tzebi naj x-Ø-'el-tij naj
asp-A3-laugh cl/he asp-A3-come-out cl/he
'he came out laughing'

(17) ch-Ø-'ok naj x-Ø-'il-lax naj
asp-A3-cry cl/he asp-A3-see-PASS cl/he
'he was seen crying'

If the action is further marked for irrealis future, both verbs will take the suffix -oj

(18) ch-Ø-'ok-oj naj x-Ø-to-j naj
asp-A3-cry-fut cl/he asp-A3-go-fut cl/he
'he will go crying'

F. as an element of the future construction; the incomplete marker is combined with the suffix -oj for intransitive verbs⁵

(19) tinah ch-oh tzotel-oj yih abxubal
today asp-E1pl talk-fut in Jacaltec
'today we will talk in Jacaltec'

(20) cochte ch-Ø-ul-uj ha' Mah
seems asp-A3-arrive-fut cl/the rain
'it looks like it is about to rain'

The suffix is -b or -v' for transitives

(21) tzet ch-Ø-aw-u-b
what asp-A3-E2-do-fut
'what will you do?'

(22) tita' ch-Ø-in-lok-o' hun-uj txitam
maybe asp-A3-E1-buy-fut a-suff pig
'maybe I will buy a pig'

1.3. Progressive

1.3.1.

The progressive aspect is morphologically more complex than the aspects presented above. It is composed of an aspect word followed by an embedded verb. The aspect word is lattan meaning 'long and flexible'.⁶ It behaves like an upper stative verb and requires an embedded complement sentence to follow it.⁷ The embedding process consists of marking all subjects for ergative and suffixing -n(i) on transitive verbs:

(23) lattan ha-wayi
prog E2-sleep
'you are sleeping'

(24) lattan hach s-mak-ni naj
prog A2 E3-hit-suff cl/he
'he is hitting you'

See Chapter 3 Case Marking and Chapter 8 Complement Sentences for a related discussion.

1.3.2.

The progressive form can be used with passive embedded verbs:

(25) laŋan hin-tzele-laxi
 prog E1-laugh-PASS
 'I am being laughed at'

(26) laŋan s-mak-ot naj
 prog E3-hit-PASS cl/he
 'he is being beaten'

1.3.3.

The progressive aspect can be used with verbs of perception:

(27) laŋan Ø w-abe-ni ta x-Ø-ul naj
 prog A3 E1-hear-suff that asp-A3-come cl/he
 'I (am) hear(ing) that he came'

(28) x-Ø-ul naj laŋan Ø w-il-ni
 asp-A3-come cl/he prog A3 E3-see-suff
 naj an
 cl/him 1p
 'he came, I (am) see(ing) him'

1.3.4.

The laŋan construction, which expresses actions happening either in the present or in the past, is often used in contrast with the completive aspect:

(29) tolob caw laŋan y-ec' heb ya'
 they say just prog E3-pass pl cl/they
 boj ch'en campana yul ha' ha'
 with cl/the bell on cl/the water
 tu' yet x-Ø-'el-toj sulna ch'en
 that when asp-A3-come-out off cl/it
 y-ibaŋ te' batxbal
 E3-on top cl/the stretcher
 'they say that they were just passing with the bell over the water when it slipped off the stretcher'

(30) laŋan Ø y-a'-ni ha' ɰab
 prog A3 E3-give-suff cl/the rain
 yet xc-in apni
 when asp-A1 arrive
 'it was raining when I arrived'

1.3.5.

There is no progressive form with stative verbs or with verbs which are used with no aspect marker, like -ohtaj 'to know' and -je 'to like':⁸

(31) *laŋan meba hof
 prog poor A1pl
 (we are being poor)

(32) *laŋan tzalalal haw-eyi
 prog happy E2-be
 (you are being happy)

(33) *laŋan sonlom hach
 prog marimba player A2
 (you are being a marimba player)

(34) *laŋan Ø w-ohtaj hun-tu'
 prog A3 E1-know one-that
 (I am knowing that)

(35) *laŋan s-je naj caŋalwoj
 prog E3-want cl/he to dance
 (he is wanting to dance)

1.4. Sequential

1.4.1.

The sequential aspect is a special aspect used to coordinate sentences which express actions happening in a chronological order. It is formally parallel to the laŋan progressive construction and is composed of the aspect word cat followed by an aspectless embedded verb:⁹

- (36) ch-oh wa'i cat cu-way-oj
 asp-A1pl eat and then E1pl-sleep-suff
 'we eat and then we will sleep'
- (37) ch-oh wa'i cat Ø cu-tx'ah-ni
 asp-A1pl eat and then A3 E1pl-wash-suff
 cu-munlabal
 E1pl-dish
 'we eat and then we wash our dishes'

1.4.2.

The sequential construction is restricted to the temporal sequence of present (or future)/future:¹⁰

- (38) babel xcuwatx'e skoyehal cat
 first we make dough and then
 cu coc'tenocoj ixpix xol cat sto
 we grind tomato in and then goes
 yoxal cat janicoj yibaH ka'
 achiote and then we put on fire
 'first we make the dough, and then we grind tomatoes in it, and then in goes the achiote, and then we put it on the fire'

1.4.3.

This type of construction does not apply to the sequence of past (or plus perfect)/past, as shown by the ungrammaticality of *(39b). In the completive aspect the two clauses are simply juxtaposed if intransitive (39c) or coordinated by the suffix -n(i) if transitive (40b):

- (39) a. choH to yichtenam xin cat jelapnoj
 we go Yichtenam then and then we arrive
 sc'ataH ix casimira
 at cl Casimira's
 'we go to Yichtenam and then we visit Casimira's'

- b. *xcoH to yichtenam xin cat jelapnoj
 we went Yichtenam then and then we arrived
 sc'ataH ix casimira
 at cl Casimira's
 'we went to Yichtenam and then we visited Casimira's'
- c. xcoH to yichtenam xin xcoH elapnoj
 we went Yichtenam then we arrived
 sc'ataH ix casimira
 at cl Casimira
 'we went to Yichtenam and then we visited Casimira's'

- (40) a. *xinlok ixim ixim cat winitoj
 I bought cl corn and then I carry
 ixim yibaH cheh
 cl/it on horse
 'I bought corn and I carried it by horse'
- b. xinlok ixim ixim xwinitoj ixim
 I bought cl corn I carried cl/it
 yibaH cheh
 on horse
 'I bought corn and I carried it by horse'

1.4.4.

The sequential aspect is insensitive to the type of sentence it introduces. It can coordinate two independent sentences which may even be in the imperative mood. It can also coordinate main and subordinate clauses, as well as two subordinate clauses of the same main verb. Examples of all of these different combinations are provided below--

A. independent coordinated sentences

- (41) \textbackslash wechma tato \textbackslash tocan heb naj
I wait that go for sure pl cl/they
cat hin toyi
then I go

'I wait for them to go for sure and then I go'

B. independent coordinated imperative sentences

- (42) peba te' pul \textbackslash ta cat hawani \textbackslash coj
close cl/the door and then you put on
stel te'
its bar cl

'close the door and put on the bar!'

- (43) jah te' ca \textbackslash xa cat hawani \textbackslash atoj
open cl/the chest and then you take out
 \textbackslash il kap saj
cloth clean

'open the chest and take out the clean cloth!'

C. subordinate sentence followed by the main clause

- (44) masanto \textbackslash lahwoj ita ti' hawu
not until finishes food this by you
cat ha toj
and then you go

'you will not go until you finish the meal'

- (45) c'am tx'oj ye ha c'ul cat
in spite of sick is your stomach and then
hawa \textbackslash nipaxoj
you are bathing also

'on top of being sick, you are taking a bath'

- (46) ha' \textbackslash wilni suji ha' ha' cat
when I see boil cl/the water and then
winihayoj ha' yiba \textbackslash ka'
I take down cl/it on fire

'when I see the water boil, I take it off the fire'

- (47) tolob tato hach to yi \textbackslash ix cat
they say if you go with cl/her and then
sto ix yalni
goes cl/she she says

'they say that she says that, if you go with her,
she will go'

D. main clauses followed by coordinated subordinate sentences

- (48) skan heb naj cab tz'ayic' tet naj
ask pl cl/they two days to cl/the
alcal yu \textbackslash te ya'ni pensar heb naj
alcalde in order to think pl cl/they

tzet yelapnoj cat ya'ni heb naj
what it means and then give pl cl/they

spaj tet naj
their answer to cl/him

'they asked the alcalde for two days to think
about what it meant, and to then give him an
answer'

- (49) xal ya' tet naj pel tato ch'oc ya'
said cl/he to cl Peter that enters cl/he
yul te' Mah ti' cat-xin yoc naj
in cl house this and-then enters cl
pel yul te' xil-xa
Peter in cl/it old-already

'the old man said to Peter that he would move into
this house and that Peter would move into the old
one'

- (50) choche ix stachtze te' cenea cat
likes cl/she cook cl/the bananas and then
slonitoj ix te'
eats up cl/she cl/them

'she likes to cook the bananas and eat them'

2. MOODS

2.0.

The two moods of Jacaltec--imperative and exhortative--are marked by suffixes.

2.1. Imperative

The imperative form is different for transitive and intransitive verbs. With transitives the verb appears in its bare stem form with no aspect or subject marker. When there is an overt object, its absolutive case marker is postposed to the verb:¹¹

(51) a. ch-in ha-mak an
asp-A1 E2-hit 1p
'you hit me'

b. mak hin an
hit A1 1p
'hit me!'

(52) a. ch-∅-aw-al hune' tzoti' w-et an
asp-A3-E2-say one word E1-to 1p
'you say a word to me'

b. hal hun-uj tzoti' w-et an
say one-suff word E1-to 1p
'say a word to me!'

The suffix -uj in (52b) signifies that the noun following it is not specific.

The imperative of the intransitive is formed from the bare stem of the verb and the suffix -aŋ. There is neither an aspect nor a subject marker:

(53) oc-aŋ -- pisy-aŋ
enter-IMP sit-IMP
'come in and sit down!'

(54) eh-aŋ co-c'ataŋ tinaŋ
stay-IMP E1pl-with now
'stay with us now!'

For the first and third person imperative, the verb keeps

the person markers but has no aspect marker. In addition, the absolutive of the subject of intransitives is suffixed to the verb rather than prefixed. The verbs are in the future form, suffixed with -oj for intransitives and -V' or b for transitives:

(55) ∅ cu-lah-a' tzet tzabilcoj
A3 E1pl-finish-suff what was started
j-u an
E1pl-by 1p
'let us finish what we have started'

(56) hach j-aŋne
A2 E1pl-bathe
'let us bathe you!'

(57) a. caŋalw-øj hoŋ
dance-suff A1pl
'let's dance!'

b. *hoŋ caŋalwoj

(58) a. wa'-øj hoŋ
eat-suff A1pl
'let's eat!'

b. *hoŋ wa'øj

However, if anything comes to precede the verb, there is no deletion of aspect nor person marker in the imperative mood. The elements that can precede the verb in the imperative mood are the negation word and adverbials:¹²

(59) mach ch-ach pisi
not asp-A2 sit
'don't sit down!'

(60) mach ch-in ha-maka
not asp-A1 E2-hit
'don't hit me!'

- (61) c'ul ch-(y)-u ha-cattalwi
well asp-A3-do E2-dance
'dance well!'
- (62) niman ch-Ø-aw-ute ha-c'ul
big asp-A3-E2-make E2-stomach
'be patient!'
- (63) sac'an ch-Ø-aw-ute ha-ba
diligent asp-A3-E2-make E2-refl
'be diligent!'
'behave diligently!'

2.2. Exhortative

The exhortative mood is marked by the morpheme -ab. If the verb is transitive, the stem is in its bare form. If it is intransitive, the suffix -oj of irrealis is added to it:¹³

- (64) chiwa-oj ab s-c'ul anma tu'
get angry-suff EXH E3-stomach people that
'let them get angry!'
- (65) can-oj ab hun-uj t-aw-et
stay-suff EXH one-suff aug^t-E2-to
'would that one stay for you!'
'would that you keep one!'
- (66) ta chaltu' hul-uj ab xo' catin
if that way come-suff EXH cl Catherine
'if this is so, would that Catherine come!'
- (67) hach s-mak ab naj mach mac
A2 E3-hit EXH cl/he not who
ay yoc y-if
has interest E3-in
'would that he hit you, nobody cares about it!'

The distribution of case markers is the same as in the imperative forms--that is, if an absolutive marker is alone, it follows the verb; compare (57) and (58) above with (68) below. In the exhortative mood the absolutive subject marker

of an intransitive follows the verb:

- (68) way-oj ab hoH mach mac
sleep-suff EXH A1pl not who
ay yoc j-if
has interest E1pl-in
'would that we sleep, nobody cares about us!'

In the negative exhortative, the negation word attracts the mood suffixes too, as was the case in the negative imperative sentences:

- (69) maj-ab ch-ach s-mak naj
not-EXH asp-A2 E3-hit cl/he
'mejor que no te pegue'
'would that he not hit you!'
- (70) ta mat s-je ha-c'ul wayoj
if not E3-want E2-stomach to sleep
maj-ab ch-ach wayi
not-EXH asp-A2 sleep
'si no quieres dormir, mejor que no duermas'
'if you don't want to sleep, would that you not sleep!'

3. VOICES

3.1. Active--a Restriction on Subjects of Transitives

The active voice is characterized by a selectional restriction on subjects of transitive verbs; that is, the subjects are restricted to animate nouns:

- (71) a. speba naj te' pulta
close cl/he cl/the door
'he closed the door'
- b. *speba cake te' pulta
close wind cl/the door
'the wind closed the door'

- (72) a. schac'anŋe ix tx'otx' tx'otx'
 wet cl/she cl/the floor
 yu stz'isni kalem
 in order to sweep garbage
 'she wet the floor in order to sweep the
 garbage'
- b. *schac'anŋe ha' ŋab tx'otx' tx'otx'
 wet cl/the rain cl/the ground
 'the rain wet the ground'
- (73) a. chin haxibte an
 me you scare 1p
 'you scare me'
- b. *chin xibte sc'ejalholo
 me it scares dark
 'the dark scares me'

However, transitive verbs of complete destruction seem to accept inanimate subjects which express the power behind the destruction:

- (74) xetatoj ha' ŋab ixim awal
 destroyed cl/the rain cl/the cornfield
 'the rain destroyed the corn field'
- (75) spotx' yabil no' txitam
 killed disease cl/the pig
 'the disease killed the pig'
- (76) xic'oj cake te' ŋah
 smashed wind cl/the house
 'the wind smashed the house'

On the other hand, transitive verbs of destruction which are formed with causative derivational suffixes like -tze are restricted to animate subjects:

- (77) a. xtz'a-toj te' ŋah yu ka' ka'
 burned-down cl/the house by cl/the fire
 'the house burned down because of the fire'
- b. xtz'a-tze-toj heb naj te' ŋah
 burned-CAUS-down pl cl/they cl/the house
 'they (men) burned down the house'
- c. *xtz'a-tze-toj ka' ka' te' ŋah
 burned-CAUS-down cl/the fire cl/the house
 'the fire burned down the house'

The subjects of intransitive verbs may or may not be animate, as is shown in the examples below:

- (78) xtaŋiloj ixim ixim
 finished cl/the corn
 'the corn ran out'
- (79) xto naj
 went cl/he
 'he went'
- (80) xcam no' cheh
 died cl/the horse
 'the horse died'

3.2. Agentive and Instrumental Prepositional Phrases

Those inanimate agents which cannot be subjects of transitives appear in agentive prepositional phrases. Sentences (81) and (82) are the correct forms of *(71b) and *(73b):

- (81) xpehi te' pulta yu cake
 close cl/the door by wind
 'the door was closed by the wind'
 'the wind closed the door'
- (82) chin xiw yu sc'ejalholo
 I am scared by dark
 'I am scared by dark'
 'the dark scares me'

The same preposition -u is used in transitive sentences to express the instrumental case. The instrumental follows subject and object:

(83) xintzoc'ic'oj te' te' yu ch'en
I cut cl/the tree with cl/the
machit an
machete 1p

'I cut the tree with the machete'

(84) xinmak metx tx'i' yu hune' te' an
I hit cl/the dog with a stick 1p

'I hit the dog with a stick'

(85) xinlec'ayoj no' cheh yu hune' lasu an
I roped down cl/the horse with a lasso 1p

'I roped the horse with a lasso'

In questions these by-phrase instrumentals behave like surface structure subjects of the transitive verbs. This was discussed in Section 3. Question of Chapter 1 Typological Characteristics.

In the active voice the -u prepositional phrase is also used for indirect agents, in both transitive and intransitive sentences:¹⁴

(86) smak naj pel yixal yu
hit cl Peter his wife because of
niXtej unin
little children

'Peter beat his wife because of the children'

(87) xcin xiw hawu
I am scared because of you

'I am scared because of you'

(88) yu ha mul yu xin xcin ayc'ayi
by your fault because of that then I fell down

'it is because of you that I fell down'

3.3. Passive

3.3.1.

Jacalteco has four passive suffixes which differ in their semantics and productivity. The suffixes are: -ot, -lax, -lo, and -cha. The four types of passive share several characteristics:

- they are derived from transitive sentences;
- the surface structure subject takes an absolutive case marker;
- they can take an agentive phrase introduced by the preposition -u 'by'.

These characteristics are illustrated in the example below:

(89) x-Ø-tz'ah-ot/lax/lo/cha te' hah
asp-A3-TRANS-PASS cl/the house
y-u naj
E3-by cl/him

'the house was painted by him'

3.3.2. -ot and -lax

The first two passives--the ones in -ot and -lax--have in common that they are used preferably in an agentless form and that when an agent is expressed it is restricted to the third person. First and second person agents produce awkward sentences:

(90) a. x-Ø-c'och-lax/ot ixim ixim
asp-A3-shell-PASS cl/the corn
(y-u ix)
(E3-by cl/her)

'the corn was shelled (by her)'

b. *x-Ø-c'och-lax/ot ixim ixim w-u
asp-A3-shell-PASS cl/the corn E1-by

'the corn was shelled by me'

The agentive phrase in the third person is indistinguishable from a prepositional phrase expressing the indirect agent or the cause of an action. This accounts for the ambiguity of the following sentence:

- (91) x- \emptyset -mak-ot naj pel y-u naj Xuwan
asp-A3-hit-PASS cl Peter E3-by cl John
'Peter was hit by/because of John'¹⁵

If the prepositional phrase appears clefted however, the sentence is no longer ambiguous. The prepositional phrase can only be interpreted as an indirect agent:

- (92) y-u naj Xuwan x- \emptyset -mak-ot
E3-because cl John asp-A3-hit-PASS
naj pel
cl Peter
'it is because of John that Peter got hit'
*'it is by John that Peter got hit'

- (93) y-u s-mi' ix x- \emptyset -cuy-ut
E3-because E3-mother cl asp-A3-teach-PASS
abxubal¹⁶
Jacaltec
'it was because of her mother that she was
taught Jacaltec'
*'it was by her mother that she was taught Jacaltec'

While the passive agent is restricted to third person, the prepositional phrase of the indirect agent can be any of the three persons:

- (94) x- \emptyset -mak-ot naj haw-u
asp-A3-hit-PASS cl/he E2-because
'he was hit because of you'
- (95) haw-u xc-in tzeeye-laxi
E2-because asp-A1 laugh-PASS
'it is because of you that I was laughed at'

The differences between the passives in -lax and -ot are quite subtle and involve the nature of the agent. The -ot passive is the most impersonal of all the passives. In the -ot construction there is no mention or suggestion of who the agent is. The focus is totally on the action that was performed:

- (96) x- \emptyset -mak-ot naj
asp-A3-hit-PASS cl/he
'he got hit'
- (97) x- \emptyset -txoH-ot sunil no' txitam
asp-A3-sell-PASS all cl/the pigs
'all the pigs got sold'

This passive is preferred in the completive aspect and in fact cannot combine at all with the irrealis morpheme -oj, while -lax can:¹⁷

- (98) a. *chi-m- \emptyset -awte-ot-oj naj
asp-maybe-A3-call-PASS-fut cl/he
'maybe he will be called'
- b. chi-m- \emptyset -awte-lax-oj naj
asp-maybe-A3-call-PASS-fut cl/he
'maybe he will be called'
- (99) a. *x- \emptyset -tohla-ot-oj ix
asp-A3-pay-PASS-fut cl/she
'she will be paid'
- b. x- \emptyset -tohla-lax-oj ix
asp-A3-pay-PASS-fut cl/she
'she will be paid'

In contrast, the -lax passive presupposes the existence of the agent. Whether expressed or not, the agent is understood as an impersonal authority or some collective agent. In translation this agent is rendered as 'people' or 'they'

and is understood to be relatives, friends or a person of authority. The contrast between the use of -ot and -lax is presented in the following pairs of sentences:

(100) a. x'illax naj (yu anma)
was seen cl/he (by people)
'they saw him'

b. x'ilot naj
was seen cl/he
'he was seen' (was caught)

(101) a. xpelax campo bay chu sajach
was closed field where happens game
yet kiŋal ca'fi
when fiesta in two days
'they closed the field where there will be a game for the fiesta in two days' (whoever the authority is, president of the soccer club or alcalde)

b. xpehot campo bay
was closed field where . . .
'the field got shut . . . ' (by an unknown agent)

If the agent mentioned in the -u phrase is specific and represents unpredictable information, it is then understood as the indirect agent with the -lax construction, but as either the direct or the indirect agent with the -ot construction:

(102) xcolaxiloj naj pel tet preso
was freed cl Peter from jail
yu smam
because his father
'Peter was freed from jail because of his father'

(103) xmakot naj yu svesino
was hit cl/he by/because his neighbor
'he was hit by/because of his neighbor'

The ambiguity of (103) disappears if the object of the preposition is a first or second person, as mentioned earlier:

(104) xmakot naj hawu
was hit cl/he because of you
'he was hit because of you'
*'he was hit by you'

The nature of the agentive phrases with the passives -lax and -ot may be summarized as follows:

- (a) with -lax, collective or predictable agents are understood, and may be expressed or not;
- (b) with -ot, the agentless construction is preferred; rarely, an unpredictable and specific agent is expressed.

With both -lax and -ot the direct agent is restricted to the third person. In this third person the agent is always ambiguous; it may express the direct or the indirect agent. In the first and second person the agent may only be an indirect agent.

3.3.3. -lo

The -lo passive takes an agent more commonly than not. This agent is not restricted to the third person:

(105) laŋo xloklo hin camiŋ wu an
barely was bought my shirt by me 1p
'I could barely afford my shirt'

(106) mach xchalo hin xaŋtab xawactoj yalaŋ
not was found my sandals you put under
tx'at wu an
bed by me 1p
'I did not find my sandals that you put under the bed'

Sentences with -lo passives were rendered as active sentences in Spanish translation by informants.

The -lo construction was commonly found with negative and restrictive words, carrying the connotation of something difficult or impossible to do:

(107) matxa x'illo ha mam wu an
not yet was seen your father by me 1p
'I have not been able to see your father yet'

(108) mach xbelo sunil ha loc'
not was carried all your adobe
'all your adobe has not been carried yet?'

The passive construction with -lo is less productive than the construction with -lax or -ot to which it is compared in examples (109) through (112). It is also rarely used:

(109) a. xcach kambelaxi
you were asked

b. *xcach kambeloyi

(110) a. chach etalaxi
you are being fooled

b. *chach etaloyi

(111) a. xyanelaxcan naj yit kiñ
was chosen cl/he in fiesta

'he was chosen for the fiesta'

b. *xyanelocan naj yit kiñ

(112) a. cha'lax ha c'uluj
is given your stomach

'you are being advised'

b. *cha'lo ha c'uluj

3.3.4. -cha

The -cha passive is a type of causative construction conveying

the idea that the patient (the surface structure subject of the passive verb) is either in a helpless situation or is not involved at all:

(113) chach colcha wu an
you are helped by me 1p

'I help you' (like defending you from somebody)

(114) chach atcha wu an
you are cured by me 1p

'I cure you' (you could not do it yourself)

(115) xcin tzujcha hawu an
I am followed by you 1p

'you caught up with me'

As with the -lo passive, the agentive phrase may be in any of the three persons. The sentences were also translated into Spanish by the native speakers of Jacaltec into active forms in which the agents were the subjects. The passives in -cha are the most semantically marked of all the passive constructions. Like the -lo constructions they are not as productive as the -lax and -ot forms. However, they are more frequently used than the -lo constructions.

4. MODALS

4.0.

This section will present the modality system of Jacaltec, following closely Steele's study of modals (1973), but expanding its scope to all modal indicators of the language. The presentation will include a discussion of the semantics of modals and an account of their syntax.

4.1. Semantics of Modals

All types of modals--main verb, particle, and clitic--may be grouped together to examine what notions of modality are

realized in Jacaltec. All modals belong to one of two semantic groups. The epistemic modals refer to notions ranging from possibility to probability to certainty or necessity. The corresponding root modals refer to notions of permission, obligation, and imperative requirement.

EPISTEMIC		ROOT	
possibility	tita' -m(i) ¹⁸	-u-	permission
probability	tita' -m(i)	yet ay	obligation
certainty	yilal titañ	yilal	requirement

In the epistemic paradigm, tita' and -m(i) seem to express very close notions of strong possibility or probability:

(116) a. tita' x- \emptyset -to naj bay
maybe asp-A3-go cl/he where

x- \emptyset -(y)-ala
asp-A3-E3-say

'he may have gone where he said'

b. xma-m-to naj bay x- \emptyset -(y)-ala
asp-maybe go cl/he where asp-A3-E3-say

'he may have gone where he said'

(117) a. tita' ha' naj
maybe it is cl/he

'maybe it is he'

b. ha'-m naj
it is-maybe cl/he

'maybe it is he'

(118) a. tita' ch- \emptyset -aw-il-a' naj
maybe asp-A3-E2-see-fut cl/him

txoñbal tinañ
market today

'maybe you will see him in the market today'

b. chi-m- \emptyset haw-il-a' naj txoñbal tinañ
asp-maybe-A3 E2-see-fut cl/him market today
'maybe you will see him in the market today'

Two modals titañ and yilal mark the notion of certainty. Both indicate strong assertions--with titañ, that something is expected to happen; and with yilal, that something has to happen. The notion of necessity conveyed by yilal places it as the strongest of the epistemic modals. Examples of both of these modals are given below:

(119) titañ-xa cu-sajch-oj hecal an
certain-already E1pl-play-fut tomorrow 1p
'we are to play tomorrow'

(120) titañ y-uh-uj sine yiñ sc'ejbalil
certain E3-happen-fut movie in evening
'there ought to be a movie tonight!'

(121) yilal y-ul-uj ha-mam tinañ
sure E3-come-fut E2-father today
'your father is to arrive today'

(122) yilal hin-munlah-oj boj naj
sure E1-work-fut with cl/him
'I am to work with him'

In the root modal paradigm, -u is considered first; it is a main verb expressing the modal notion of permission:

(123) ch- \emptyset -u \emptyset ha-c'ame-n s-chej
asp-A3-may/can A3 E2-borrow-suff E3-horse
naj \emptyset y-al-ni
cl A3 E3-say-suff
'he says that you may/can borrow his horse'

(124) ch- \emptyset -u s-can naj beti'
asp-A3-may/can E3-stay cl/he here
'he may/can stay here'

The next degree to be expressed is one of weak obligation or

suggestion, indicated by yet ay. It represents an avoidable moral injunction, a polite suggestion that something be done or should have been done to conform with the expected moral behavior of the culture:

(125) yet ay maytax x-Ø-ul naj
should earlier asp-A3-arrive cl/he
'he should/ought to have arrived earlier'

(126) yet ay ha-colwa y-iñ ha-mam
should E2-help E3-with E2-father
'you should/ought to give a hand to your father'

In the third position in the paradigm is yilal. It expresses imperative requirement as a root modal, whereas its epistemic modal meaning is absolute certainty or necessity:

(127) yilal ha-munlayi
obl E2-work
'you absolutely have to work'

(128) yilal Ø ha-tohla-n ha-c'as
obl A3 E2-pay-suff E2-debt
'you absolutely have to pay your debt'

In summary, the modal system of Jacaltec has been characterized by the following:

- (a) with the exception of yilal 'certainty/requirement' modals are not ambiguous between root and epistemic modal meaning;¹⁹
- (b) the notions of possibility and probability are merged in either of the modals tita' and -m(i);
- (c) the system expresses extreme degrees of absolute certainty and imperative requirement but lacks modals for less extreme certainty and obligation.²⁰

4.2. Syntax of Modals

All of the modals but -m(i) are found in sentence initial

position. The epistemic modal -m(i) is a clitic which appears in sentence second position, the first position being filled by either an aspect marker, a noun, an infinitive or a particle:²¹

(129) xma-m-to naj
asp-MOD-go cl/he
'he may have gone'

(130) cheh-mi hun-tu'
horse-MOD one-that
'that may be a horse'

(131) sajachoj-mi chu ho'
to play-MOD does cl/he
'he may be playing'

(132) mat-mi yeloj chal naj
neg-MOD true says cl/he
'what he is saying may/might not be true'

The appearance of -m(i) in second position is characteristic of its clitic nature and conforms to the very common position of modals, as was discussed by Steele (1972).

Of all the sentence initial modals, only one--tita' stands as an independent word preceding a fully inflected main verb; tita' is therefore the only completely grammaticized modal of the language:

(133) tita' x-Ø-munla naj
maybe asp-A3-work cl/he
'he may have worked'

(134) tita' ch-Ø-aw-il-a' naj txoñbal tinañ
maybe asp-A3-E2-see-fut cl/him market today
'maybe you will see him in the market today'

All of the other sentence initial modals are higher predicates followed by complement sentences of the aspectless embedded

type. They, therefore, behave like main verbs, which accounts for their sentence initial position in the VS0 language. Of those, only one is inflected for aspect; it is the verb -u- 'can/may' which is always in the third person with a sentential subject:

(135) a. ch-∅-u s-can naj beti'
asp-A3-can E3-stay cl/he here
'he can/may stay here'

b. *ch-∅-u naj s-can beti'
asp-A3-can cl/he E3-stay here

c. *ch-∅-u naj canoj beti'
asp-A3-can cl/he to stay here

(136) a. ch-∅-u ha-can beti'
asp-A3-can E2-stay here
'you can/may stay here'

b. *ch-ach u ha-can beti'
asp-A2 can E2-stay here

c. ch-ach u canoj beti'
asp-A2 can to stay here

The ungrammaticality of *(135b) and *(136b) shows that the verb -u- is not an auxiliary type verb, but rather an impersonal verb with sentential subject.

The modal yet ay, like tita', is neither a verbal root nor an adjective. Its only use is that of a modal functioning like a higher predicate followed by an embedded aspectless complement sentence:

(137) yet ay cu-colwa y-iñ naj
should E1pl-help E3-with cl/him
'we should give him a hand'

The two remaining modal indicators, tifan and yilal, have in common that they are adjectives which may be used with the

copula -eyi:

(138) tifan y-e hune' ch-∅-aw-ala
sure E3-is one asp-A3-E2-say
'what you say is sure and certain'

(139) yilal y-e munil
necessary E3-is work
'the work is necessary/urgent'

When used in a modal capacity yilal does not take the copula of manner -eyi and is simply followed by an aspectless embedded clause:

(140) yilal y-ul-uj ha-mam tinañ
sure E3-arrive-fut E2-father today
'your father is to arrive today'

On the other hand, tifan, a positional adjective, is sometimes accompanied by the copula, even in its modal use and is always followed by an embedded clause:²²

(141) tifan y-uh-uj sine sc'ejbalil
certain E3-happen-fut movie tonight
'there must be a movie tonight'

(142) tifan y-e y-i'wa naj
certain E3-is E3-win cl/he
'he has to win'

In conclusion, there is no grammaticization of the positional tifan or the adjective yilal or the verb -u- since the sentences which contain them are complex sentences with the modal element as main verb followed by complement sentences. The only one of the main verb-type modals not to belong to another category is yet ay. It is uniquely used as a modal, yet is left in the function of a main verb with a complement sentence. tita' and -m(i) are the only grammaticized modals of Jacaltec. They do not require embedding of the verb, and

they are placed as sentence initial and second clitic position, which are the most common positions for modals in a VSO language.

NOTES

1. Jacaltec has morphologically distinct intransitive and transitive verbs. Intransitives are marked by an absolutive marker for their subject and a stem augment -i, -i after a consonant being in variation with -yi after a vowel:

- (a) ch-ach to-yi
asp-A2 go-stem augment
'you go'
- (b) ch-oñ tzotel-i
asp-A1pl talk-stem augment
'we talk'

Transitives inflect for both subject and object. Subjects are assigned an ergative case marker and objects an absolutive, as will be discussed in Chapter 3 Case Marking. Verbs of the shape CVC take a stem augment -a/ -o/ -e:

- (c) ch-ach w-il-a
asp-A2 E1-see-stem augment
'I see you'
- (d) ch-oñ ha-col-o
asp-A1pl E2-help-stem augment
'you help us'

Stem augments are always present when the verb is in sentence final position or before contour. They are not used if the verb is not in final position in surface structure. Verbs ending in a CC cluster, certain intransitives ending in C, and all derived transitives ending

in -e always keep their stem augment:

- (e) ch-ach to_ hecal
asp-A2 go tomorrow
'you go tomorrow'
- (f) ch-oñ tzotel_ yiñ abxubal
asp-A1pl talk in Jacaltec
'we talk in Jacaltec'
- (g) ch-in añni yet may
asp-A1 bathe when morning
'I bathe in the morning'
- (h) x-ø-tz'oñi naj
asp-A3-sit down cl/he
'he sat down'

Derivational processes can produce transitives and intransitives. See Day (1973) for an extensive discussion of verbal morphology and verbal derivation.

2. xma- is a third variant. It is used before the modal -m(i) as in:

- (a) xma-m to naj
asp-MOD go cl/he
'maybe he went'

ma is the only completive aspect marker in the Concepción dialect of Jacaltec.

3. Verbal forms are the most active area of morphophonemic rules in the language. The notation (y) indicates that the -y- E3 is deleted in surface structure. See Appendix B Phonology for a presentation of the other rules applying to verb forms.
4. Simultaneity is also expressed by an aspect word c'un

which does not require the embedding of the verb:

- (a) wa'-aH c'un Ø hin-tz'is kalem an
eat-IMP while A3 E1-sweep garbage 1p
'eat while I sweep the floor'
- (b) way-aH c'un Ø aXni naj
sleep-IMP while A3 bathe cl/he
'sleep while he bathes'

All informants agreed on the use of c'un alone in the incomplete aspect, but there was some variation in the complete aspect. The variations were between c'un, x-c'un, yet c'un, and yet x-c'un. That is, the aspect c'un was used alone or was combined with the complete aspect or with the conjunction of subordination yet 'when' or with both:

- (c) c'un/x-c'un/yet c'un/yet x-c'un hin wa'
when A1 eat
an c-ach to txoHbal
1p asp-A2 go market
'while I ate, you went to the market'

The only time c'un introduces the second clause is when the first one is in the imperative, as in the first examples above. Observe the ungrammaticality of sentence *(e) below:

- (d) c'un hach wa'i cat w-aXni an
while A2 eat and E1-bathe 1p
'while you eat, I bathe'
- (e) *ch-ach wa'i c'un hin aXni an
asp-A2 eat while A1 bathe 1p
- (f) wa'-aH c'un hin aXni an
eat-IMP while A1 bathe 1p
'eat while I bathe!'

5. This suffix -oj is a general suffix of irrealis found in various constructions.

I. It accompanies the negative particle mat in negative stative sentences:

- (a) mat sonlom-oj hach
not marimba player-suff you

'you are not a marimba player'

- (b) mat c'ul-uj
not good-suff

'it is not good'

(-oj undergoes vowel harmony: o----> u/uC+)

II. It is suffixed to intransitives in the exhortative mood:

- (c) way-oj ab naj
sleep-suff EXH cl/he
'would that he sleep!'

III. It marks a noun as non-specific:

- (d) a' cab-oj w-och
give two-suff E1-tortilla
'give me two tortillas'

- (e) x-Ø-'oc heb ix say-a'
asp-A3-start pl woman look for-fut
hun-uj munlabal
a-suff pot
'the women started looking for a pot'

6. Day (1973), p. 32.

7. The fact that laHän is a higher predicate and a stative verb is indicated by the negative construction. laHän takes the negative word mat of stative constructions and receives the suffix -oj:

(a) mat laŋan-oj ha-wayi
not prog-suff A2-sleep
'you are not sleeping'

(b) mat sonlom-oj hach
not marimba player-suff A2
'you are not a marimba player'

Furthermore, laŋan combines with the two particles to 'still' and xa 'already', which is another characteristic of predicates:

(c) laŋan-to s-wa' naj
prog-still E3-eat cl/he
'he is still eating'

(d) laŋan-xa s-to naj
prog-already E3-go cl/he
lit: he is already going
'he is about to go'

(e) laŋan-to haw-uli
prog-still E2-arrive
lit: are you still arriving?
'is it now that you are arriving?'

8. This correlates with the ungrammaticality of the imperative equivalent. The constraint is on whether or not the agent has control over the action; cf. in English, *be tall, *I am being tall.

9. cat is postulated to be related to the suppletive imperative form of the verb tita 'to come', which is cata. See Day (1973), p. 32.

cat has a counterpart, lahwi, which functions with the same type of embedded verb and introduces the first of two sequential sentences with the meaning 'and after X, Y'. It is much less used in the language, however.

lahwi is easily recognizable as the stem of the intransitive verb lahwi 'to finish':

(a) lahwi Ø y-ilwe-n s-ba heb
and after A3 E3-test-suff E3-refl pl
naj x-Ø-to heb naj
cl/they asp-A3-go pl cl/they
'and after they tested themselves, they went'

(b) lahwi w-ul an xc-in to wa'oj an
and after E1-come 1p asp-A1 go to eat 1p
'and after I arrived, I went to eat'

10. Another restriction is that cat, unlike laŋan, cannot be used with negation. This restriction is probably a semantic characteristic of this aspect.

11. As in English, the reflexive imperative form provides an argument for postulating that imperative sentences are derived from fully inflected sentences, since the second person reflexive form ha ba 'yourself' of sentences (a) and (b) below had to arise at the time the coreferential subject and object concurred:

(a) chacach ha ba hawuc'i
you avoid yourself your drinking
'you avoid drinking'

(a') cach ha ba hawuc'i
avoid yourself you drink
'avoid drinking!'

(b) chaweba ha ba yiŋtaj te' pulta
you hide yourself behind cl/the door
'you hide behind the door'

(b') eba ha ba yiŋtaj te' pulta
hide yourself behind cl/the door
'hide (yourself) behind the door'

12. There is one exception to the manner adverbial construction of (61). In the imperative mood the construction with beh 'directly' undergoes deletion of the verbal element chu:

(a) beh chu ha to hawatut
direct do you go your house
'you go home directly'

(b) beh ha to hawatut
direct you go your house
'go home directly!'

(b') *beh chu ha to hawatut

Sentence *(b') may be contrasted to (c) and (d):

(c) c'ul chu ha wayi
good do you sleep
'sleep well!'

(d) nan c'ulal chu ha munlayi
slow do you work
'work slowly!'

See Chapter 12 Manner Adverbial Sentences for further discussion of this construction.

13. The same ab morpheme together with the suffix of irrealis -oj is used with adverbial constructions and is then rendered as 'even if . . .':

(a) c'ul-uj ab chu cu cañalwi matzet
well-suff do we dance nothing
xjicanloj yiñ
we get in(it)
'even if we dance well, we do not get anything out of it'

(b) beh-oj ab chu cu to jatut mach
directly-suff do we go home not is
mac ay yoc yiñ
who has interest in(it)

'even if we go home directly, nobody cares about it'

(c) sac'an-oj ab xjute cu ba mach
diligent-suff we make ourselves not
chu cu lahwi yiñ munil
do we finish in work

'even if we busy ourselves, we cannot finish the work'

14. The -u phrase is a very common element of idiomatic expressions:

(a) xcan wixal yul coñob wu an
stayed my wife in village by me 1p
'I left my wife in the village'

(b) ch'oc hin melyu wu
uses my money by me
'I need money'

(c) mach ch'ah ha familia hawu
not rise your family by you
'you do not support your family'

15. The ambiguity in this Jacaltec sentence is rendered in Guatemalan Spanish by the use of the same preposition por for both the meaning of 'by' and 'because'. With third person plural impersonal constructions and with the agent (indirect or direct) in a prepositional phrase one hears the following in Guatemalan Spanish:

(a) le pegaron a Juan por Miguel
lit: they hit John by/because of Michael
'John was hit by/because of Michael'

- (b) le echaron jabón a la mesa por María
lit: they soaped up the table by Mary
'the table was soaped up by Mary'
16. A reminder. Vowel assimilation has changed the o of the passive suffix to u, as is explained in Appendix B Phonology.
17. It also seems that the -ot passive is preferred in the negative:
- (a) mach xtohlaot ix yu ya'
not was paid cl/she by cl/her
'she was not paid by her'
- (a') ?mach xtohlalax ix yu ya'
- (b) mach x'ilot naj yu anma
not was seen cl/he by people
'he was not seen by people'
- (b') ?mach x'illax naj yu anma
18. The i of mi drops when the modal is suffixed to a vowel. Compare ch_h-m_i to xma-m to naj.
19. The fact that the two meanings of yilal represent the corresponding notions of certainty and requirement supports Horn's hypothesis of a necessary connection between root and epistemic modal meaning. See Steele (1972).
20. This is seen in sentences like:
- 'I have to work now'
- 'children must obey their parents'
- 'children must respect older people'
- Between yet ay meaning that something would be proper to

- do and yilal meaning that it is urgent or absolutely necessary to do something, there is an area of statements of certainty or obligation expressed as simple declarative sentences in Jacaltec.
21. This provides an argument for considering aspect markers as higher predicates. Three of them--completive, incomplete, and simultaneous c'un--would then undergo predicate raising while the other two--progressive lañan and sequential cat--are still followed by an embedded form of the verb.
22. tiñan is also sometimes used with a complement sentence introduced by a complementizer:
- (a) tiñan yeyi chubil ha' naj x'iwayi
certain is that cleft cl/he won
'it is certain that it is he who won'

No grammaticization process affects the positional adjective tiñan, which still uses the copula -eyi and behaves like a main verb, even in its modal meaning. This is to be put in contrast with the other positional adjective lañan which, as a progressive aspect marker, has undergone grammaticization to a certain degree, since it is never accompanied by the copula -eyi in its aspect marker function. However, grammaticization is not complete since the complex structure marked by the embedded form of the verb has not been collapsed.

3. Case Marking

Jacaltec is an ergative language. The case markers also carry the agreement feature of person, as is discussed in Section 1. Section 2 is an analysis of the morphological shape and distributional use of the case markers. The mechanism of case assignment is discussed in Section 3, the placement of the case markers in Section 4. Section 5 is a conclusion, with remarks on the ergativity of the language.

1. PERSON MARKING

1.1. Three Persons

There are three persons in Jacaltec—first, second, and third—in the singular and the plural. In the first person plural a distinction can be made between exclusive and inclusive meanings. This is accomplished by the addition of the sentence particle an, which is further discussed in Chapter 9 A Boundary Marker.

First and second person independent pronouns and clitic markers have different morphological shapes in the singular and the plural. The third person has the same clitic marker in the singular and in the plural, is always accompanied by a noun classifier, and takes a plural morpheme in the plural. This plural marker is heb for humans and hej for non-humans:¹

(1) x-∅-to-pax heb naj winaj
asp-A3-go-back pl cl/the man
'the men returned'

(2) a. ilc'anab hej te' #ah
look at pl cl/the house
'look at the houses!'

b. ilc'anab hej no' txitam
look at pl cl/the pig
'look at the pigs!'

Person is marked in surface structure by either an independent pronoun or a clitic pronoun, or in emphatic context by both.

1.2. Independent Pronouns

First and second independent pronouns are compound formations. They are formed with the particle ha' and the absolutive set of pronouns:²

(3) a. ha' + hin = hayin 'I'
b. ha' + hach = hach 'you'
c. ha' + hoŋ = hayoŋ 'we'
d. ha' + hex = hex 'you pl'

The third person independent pronoun is a noun classifier by itself, accompanied in the plural by the plural morpheme:³

(4) a. naj 'he/him' heb naj 'they/them'
cl(man) pl cl
b. ix 'she/her' heb ix 'they/them'
cl(woman) pl cl
c. no' 'it' hej no' 'they/them'
cl(animal) pl cl
d. ch'en 'it' hej ch'en 'they/them'
cl(rock)

In simple declarative sentences, the first and second person independent pronouns are deleted by a rule of Pronoun Drop. The rule applies only to those independent first and second persons which are inflected with a clitic pronoun on a verb, noun, or preposition:

- (5) a. *xc-ach to hach
asp-A2 go you
'you went'
- b. xc-ach to-yi -----
asp-A2 go-stem-aug^t Pron Drop
'you went'
- (6) a. *ch-in aʔni hayin
asp-A1 bathe I
'I bathe'
- b. ch-in aʔni ----- (an)
asp-A1 bathe Pron Drop ip
'I bathe'
- (7) a. *x-∅-w-il hayin ha-mam hach
asp-A3-E1-see I E2-father you
'I saw your father'
- b. x-∅-w-il ----- ha-mam -----
asp-A3-E1-see Pron Drop E2-father Pron Drop
'I saw your father'
- (8) a. *x-∅-colwa ix w-ifʔ hayin
asp-A3-help cl/she E1-to me
'she gave me a hand'
- b. x-∅-colwa ix w-ifʔ -----
asp-A3-help cl/she E1-to Pron Drop
'she gave me a hand'

When the independent pronoun is not duplicated by a clitic pronoun marker, it does not undergo the Pronoun Drop rule.

This is the case with a pronoun following a conjunction:

- (9) ch-in to boj hach
asp-A1 go with you
'I go with you'

- (10) ...haca' hach
and how you
'...and what about you?'

The third person pronoun, the noun classifier, does not drop either:

- (11) x-∅-caʔalwi naj
asp-A3-dance cl/he
'he danced'
- (12) a. *x-∅-aw-il hach ix
asp-A3-E2-see you cl/her
'you saw her'
- b. x-∅-aw-il ----- ix
asp-A3-E2-see Pron Drop cl/her
'you saw her'

Pronoun Drop is therefore limited to those cases in which the deletion does not result in any loss of information of person or noun class.

In emphatic constructions the independent pronouns appear in their original position and are generally accompanied by the post-nominal demonstrative ti'/tu' 'this/that':

- (13) caw ya'taj x-∅-w-abe hayin ti'
very difficult asp-A3-E1-feel I this
lit: for my part, I feel it very difficult
'it seems very difficult to me'
- (14) toʔe ch-∅-(y)-al heb naj nan
always asp-A3-E3-say pl cl/they differently
ch-in to-j hayin ti'
asp-A1 go-fut I this
'all they do is talk; I am going my own way'

The emphatic pronoun may also be found at the head of the whole sentence in a clefted position:⁴

- (15) hayin x-Ø-w-ute hun-ti'
I asp-A3-E1-do one-this
'I did this'

- (16) hach-tic'a i'ne tato ch-Ø-Ø toyi
you-always depends that asp-A1pl go
'it is still up to you whether we go (or not)'

Only one element can be clefted in a sentence, but a post-verbal emphatic independent pronoun can co-occur with a clefted NP:

- (17) a. ha' tu' ch-Ø-aw-a' pensar
cleft that asp-A3-E2-give to think
hach ti'
you this
'that's what you think!'
- b. *hach ti' ha' tu' ch-Ø-aw-a' pensar
you this cleft that asp-A3-A2-give to think

In the third person, the clefted noun classifier is preceded by the clefting particle ha', which is an obligatory particle with a classifier alone in a pronoun form, but optional with full NPs:

- (18) a. ha' naj x-Ø- -'ute-n hun-tu'
cleft cl/he asp-A3-DEL-do-suff one-that
'it is he who did that'
- b. (ha') hune' te' hah ti' babel
(cleft) one cl house this first
x-Ø-(y)-acañ naj
asp-A3-E3-build cl/he
'it is this house which is the first one that he built'

2. THE MORPHOLOGY AND USE OF CASE MARKING

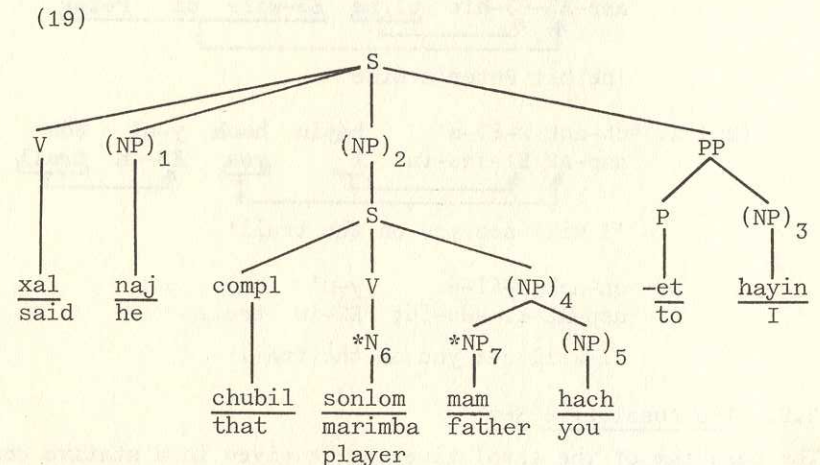
2.0.

Jacalteco has two sets of case markers, an absolutive set and

an ergative set. In the morphological analysis of examples, they are referred to as A/E1,2,3--A for absolutive, E for ergative, and 1 2 3 for the persons. The following paragraphs will present the morphological shape of each set and the different constructions to which they belong.

2.1. Preliminary Remarks

Those NPs which are marked for case fulfill one of the four nominal functions--subject, object, object of preposition, possessor NP. Included are non-terminal NPs which dominate sentential subjects or objects and possessive constructions; excluded are the terminal nodes of nominal predicates and possessed NPs.⁵ In the tree diagram below the NPs marked for case are in parentheses, constituents not in nominal functions which will not inflect for case are starred:



1. subject NP
2. sentential object
3. object of preposition
4. subject NP
5. possessor NP
- *6. nominal predicate
- *7. possessed NP

The tree structure (19) corresponds to sentence (20) in which the numbers refer to the inflected NPs of the tree:

- (20) x- \emptyset -(y)-al naj w-et an chubil
 asp-A3-E3-say cl/he E1-to 1p that
 2 1 3
- sonlom \emptyset ha-mam
 marimba player A3 E2-father
 4 5

'he said to me that your father was a marimba player'

Case markers are not attached to their NPs but appear in different positions in the sentence. The arrowed lines in the samples below relate the case markers to their NPs:⁶

- (21) x- \emptyset -s-mak naj y-ixal naj pel
 asp-A3-E3-hit cl/he E3-wife cl Peter
 ↑ ↑ ↑ ↑
 'he hit Peter's wife'

- (22) a. *ch-ach w-il-a' hayin hach y-ul beh
 asp-A2 E1-see-fut I you E3-in trail
 ↑ ↑ ↑ ↑
 'I will see you on the trail'

- b. ch-ach w-il-a' y-ul beh
 asp-A2 E1-see-fut E3-in trail
 'I will see you on the trail'

2.2. The Absolutive Set

The paradigm of the absolutive set is given in a stative construction with the adjectival predicate meba 'poor':

- (23) sg 1- meba hin 'I am poor'
 2- meba hach 'you are poor'
 3- meba \emptyset naj 'he is poor'
 cl/he

- pl 1- meba hotl 'we are poor'
 2- meba hex 'you (pl) are poor'
 3- meba \emptyset heb naj 'they are poor'
 pl cl/he

The initial h- of the first and second person drops when the morpheme boundary is lost in normal speech. It is always lost when the case marker for either the subject of an intransitive or the object of a transitive is cliticized to the aspect marker. The third person absolutive is a \emptyset morpheme.⁷ As mentioned earlier, it will always be accompanied by a noun classifier and will take a plural morpheme (heb/hej) in the plural.

The absolutive set fulfills the following functions--

A. subject of a stative verb:

- (24) a. winaj hach
 man A2
 'you are a man'

- b. sicinaj hin
 tired A1
 'I am tired'

- c. nimejal \emptyset te' #hah
 big A3 cl/the house
 'the house is big'

B. subject of an intransitive verb:

- (25) a. ch-oŋ wayi
 asp-A1pl sleep
 'we sleep'

- b. xc-ach toyi
 asp-A2 go
 'you want'

- c. x- \emptyset -cam no' cheh
asp-A3-die cl/the horse
'the horse died'
- d. x- \emptyset -'ayc'ay hej te' te'
asp-A3-fall down pl cl/the tree
'the trees fell down'

C. object of a transitive verb:

- (26) a. ch-in haw-ila
asp-A1 E2-see
'you see me'
- b. ch-oh s-col naj
asp-A1pl E3-help cl/he
'he helps us'
- c. x- \emptyset -s-watx'e naj te' hah
asp-A3-E3-make cl/he cl/the house
'he made the house'

D. subject of passives:

- (27) a. x- \emptyset -'il-lax naj
asp-A3-see-PASS cl/he
'he was seen'
- b. xc-ach mak-ot
asp-A2 hit-PASS
'you were hit'
- c. ch-oh tzuj-cha haw-u
asp-A1pl follow-PASS E2-by
lit: we are followed by you
'you catch up with us'

2.3. The Ergative Set

The ergative set has two variants depending on whether the following stem is consonant initial or vowel initial:

- (28)
- | | | | | |
|----|----|---------|------------------|--------------------|
| | | -mam | | 'father' |
| sg | 1- | hin-mam | | 'my father' |
| | 2- | ha-mam | | 'your father' |
| | 3- | s-mam | naj
cl | 'his father' |
| pl | 1- | cu-mam | | 'our father' |
| | 2- | he-mam | | 'your (pl) father' |
| | 3- | s-mam | heb naj
pl cl | 'their father' |

The first person plural has two variants, co- and cu-.

- (29)
- | | | | | |
|----|----|----------|------------------|-------------------|
| | | -atut | | 'house' |
| sg | 1- | w-atut | | 'my house' |
| | 2- | haw-atut | | 'your house' |
| | 3- | y-atut | naj
cl | 'his house' |
| pl | 1- | y-atut | | 'our house' |
| | 2- | hey-atut | | 'your (pl) house' |
| | 3- | y-atut | heb naj
pl cl | 'their house' |

As was the case with the absolutive, the ergative third person is obligatorily accompanied by a classifier and is identical in the singular and the plural. The plural of the third person is signalled by the plural morpheme heb/hej.

The functions of the ergative set are illustrated below--

A. subject of a transitive verb:⁸

- (30) a. ch-in ha-maka
asp-A1 E2-hit
'you hit me'
- b. ch-ach y-oche naj
asp-A2 E3-like cl/he
'he likes you'

B. marker of the possessor NP:⁹

- (31) a. hin-xaḥab
E1-sandal
'my sandals'
- b. s-bak s-sat naj
E3-pit E3-face cl(man)
lit: the pit of his face
'his eye'
- c. ay haw-uḥtaj
exist E2-brother (of a male)
'you (male) have a brother'

C. possessor NP of reflexive and reciprocal pronoun:

- (32) x-∅-w-il hin-ba
asp-A3-E1-see E1-refl
'I saw myself'
- (33) x-∅-a-mak ha-ba
asp-A3 E2-hit E2-refl
'you hit yourself'
- (34) cu-cajyat cu-ba
E1pl-enemy E1pl-refl
'we are enemies (of each other)'

D. object of preposition:

- (35) a. w-et
E1-to
'to me'
- b. j-ibaḥ
E1pl-on top
'on top of us'
- c. y-ul te' ḥah
E3-in cl/the house
'in the house'

- d. s-wi' te' te'
E3-head cl/the tree
'at the top of the tree'

E. subject of aspectless embedded clauses:

- (36) a. sab ichi cu-munlayi
early start E1pl-work
'we started working early'
- b. x-∅-(y)-il naj hin ha-mak-ni
asp-A3-E3-see cl/he A1 E2-hit-suff
'he saw you hit me'

3. CASE ASSIGNMENT RULES

3.0.

The existence of two sets of rules of Case Assignment will be established in this section. One set of rules represents an ergative type of case marking and the other a nominative/accusative type.

3.1. Assignment of Case to Subjects and Objects of Main Clauses: The Ergative Type of Case Marking

A typical ergative type of case marking operates in main clauses; it assigns an ergative to the subject of a transitive verb and an absolutive to both the subject of an intransitive and the object of a transitive:

- (37) xc-ach w-abe
asp-A2 E1-hear
'I heard you'
- (38) xc-ach toyi
asp-A2 go
'you went'

The pattern of case assignment is:

- (44) a. ch-∅-aw-a' t-(y)-et haw-anma ha-cañalwi
 asp-A3-E2-give aug^t-E3-to E2-heart E2-dance
 'you enjoy dancing'
- b. *ch-∅-aw-a' t-(y)-et haw-anma ha-kalom
 asp-A3-E2-give aug^t-E3-to E2-heart E2-rich
 'you enjoy being rich'
- c. ch-∅-aw-a' t-(y)-et haw-anma tato
 asp-A3-E2-give aug^t-E3-to E2-heart that
 kalom hach¹⁰
 rich A2
 'you enjoy being rich'

Stative clauses also behave like finite clauses in that they can be negated:

- (45) mat bakich-oj hach
 not fat-suff A2
 'you are not fat'
- (46) mat sonlom-oj ∅ naj
 not marimba player-suff A3 cl/he
 'he is not a marimba player'

As seen in Chapter 1, Section 5. Negation, clauses with finite verbs may be negated while aspectless embedded clauses may not. This will be discussed again in Chapter 8 Complement Sentences.

Since stative clauses never appear in an aspectless environment and behave like clauses inflected for aspect with respect to embedding and negation, it could be postulated that stative clauses have an aspect marker which is never realized in surface structure and that case assignment of the ergative type applies in clauses marked for aspect. In view of the lack of further arguments to postulate a dummy aspect marker in stative clauses, the domain of the ergative type of case marking will be said to include all main clauses and

embedded finite clauses.

3.3. Assignment of Case to Subjects and Objects of Aspectless Embedded Clauses: The Nominative/Accusative Type of Case Marking

Another mechanism of case assignment applies in the environment of aspectless embedded clauses and aspectless subordinate adverbial clauses.

The use of the expression "nominative/accusative type" of case assignment refers to the type of case marking found in inflectional languages in which all subjects are marked with the nominative case and all direct objects with the accusative case.

A similar process is at work in aspectless clauses in Jacalteco in that subjects of both transitive and intransitive verbs are assigned the ergative case, while the objects of transitive verbs alone are assigned the absolutive case. In intransitive clauses therefore the subject is assigned an ergative with the nominative/accusative type, while it was assigned an absolutive with the ergative type. The nominative/accusative type of case assignment is shown in pattern (47) followed by examples (48) and (49):

- (47) a. Transitive clause: V NP NP
 V S O
 Erg Abs
- b. Intransitive clause: V NP
 V S
 Erg

- (48) x-∅-w-ilwe hach hin-col-ni
 asp-A3-E1-try A2 E1-help-suff
 'I tried to help you'

- (49) x- \emptyset -w-il ha-cañalwi
 asp-A3-E1-see E2-dance
 'I saw you dance'

The case assignment rules operating on aspectless clauses can be formulated as follows:

- (50) a. Ergative Case Assignment #2
 Mark the NP closest to the verb ERGATIVE
- b. Absolutive Case Assignment #2
 Mark the second NP ABSOLUTIVE.

Rule (50a) marks the subject for ergative, no matter whether the verb is transitive or intransitive, and rule (50b) applies only to objects of transitives.

3.4. Assignment of Case in Verbless Constituents

Case marking is not restricted to subjects and objects of verbs. It applies also to possessor NPs and to the objects of prepositions, assigning them an ergative:

- (51) x- \emptyset -ul hin-mam w-atut
 asp-A3-come E1-father E1-house
 'my father came to my house'
- (52) ch-ach colwa y-iñ naj
 asp-A2 help E3-to cl/him
 'you give a hand to him'

The question arises therefore of how to treat case marking in the verbless constructions--as a separate process of case assignment or as a process to be collapsed with one of the two sets of rules established in (40) and (50).

Case assignment in possessive and prepositional phrases could be treated as a genitive type of case marking which would be independent of the verbal case marking discussed above and would then determine a third domain of case marking in Jacaltec. However, such an analysis would be missing a

generalization about case assignment in both aspectless embedded verbal clauses and possessive or prepositional phrases. Since the two sets of constructions have in common the same ergative assignment and the lack of aspect marking, they may be collapsed as shown in pattern (53):

(53) Aspectless domains of case assignment:

Transitive aspectless clauses	V	NP	NP
Intransitive aspectless clauses	V	NP	
Possessive constructions		NP	NP
Prepositional phrases		<u>P</u>	<u>NP</u>
		Erg	Abs

The nature of most Jacaltec prepositions points to more similarity between these constructions than is obvious from the above pattern. Some prepositions are easily recognizable as verb stems and others as nouns:

- (54) y-ul te' ñah
 E3-in cl/the house
 'in the house'

-ul comes from huluj, a verb meaning 'to come'.

- (55) y-u cake
 E3-by wind
 'by/because of the wind'

-u comes from uhuj 'to happen, be possible'.

- (56) s-wi' te' te'
 E3-head cl/the tree
 'on top of the tree'

-wi' comes from wi'e 'head'.

- (57) t-in-sat-taj
 aug^t-E1-front of-suff
 'in front of me'

-sattaj comes from sat 'face'.

3.5. Conclusions: Case Assignment

Two domains of case marking are distinguishable in Jacaltec, each of them corresponding to a different type of case assignment.

A) Ergative type

a. case assignment: the subject of a transitive verb is ergative; the subject of an intransitive verb and the object of a transitive verb are absolutive.

b. domain:

- main clauses, both finite and stative
- complement sentences with complementizer
- subordinate clauses with conjunction
- relative clauses

B) Nominative/Accusative type

a. case assignment: all subjects are ergative; the object of a transitive verb is absolutive.

b. domain:

- embedded aspectless clauses
- aspectless time subordinate clauses
- possessive constructions
- prepositional phrases

Since the rules of Case Assignment for subject and object NPs were formulated in terms of the number of NPs immediately following the verb, Case Assignment has to apply before all rules of movement or deletion--Clefting, Relative Deletion and Noun Classifier Deletion. The deletion of the object would result otherwise in marking the subjects of transitives with an absolutive case marker.¹¹

4. CASE AGREEMENT

4.0.

The case assigned to an NP does not appear on the NP itself but rather as an agreement feature on a predicative constituent to the left of the NP. This section will describe the positions in which the case markers are found.

4.1. Position of Ergative Case Marker

Ergatives are always preposed and, as was noted earlier in this chapter (2.2.), they are sensitive to the nature of the initial phoneme of the stem to which they are preposed. They may precede verb stems, nouns, and prepositions:

(58) a. ch-ach hin-mak-a'
asp-A2 E1-hit-fut
'I will hit you'

b. ch-ach w-il-a'
asp-A2 E1-see-fut
'I will see you'

(59) a. hin-mam
E1-father
'my father'

b. w-uXtaj
E1-brother
'my brother'

(60) a. y-ul te' #ah
E3-in cl/the house
'in the house'

b. w-iba#
E1-on top
'on top of me'

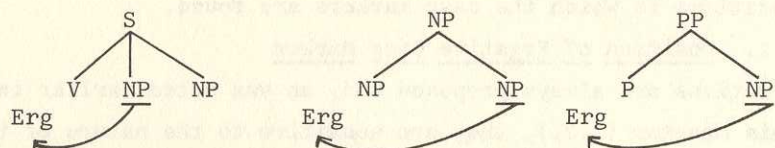
The Ergative Agreement rule is:

(61) Ergative Agreement

Place the ergative immediately before the constituent to the left of the NP.

This rule accounts for the ergative position in all domains--

- (a) main and embedded clauses (b) possessive construction (c) prepositional phrase



4.2. Positions of Absolutive Case Marker

4.2.0.

Absolutives occur in two positions in surface structure, either preceding or following the predicate:¹²

- (62) a. ch-ach w-il-a'
asp-A2 E1-see-fut
'I will see you'
- b. sicinaj hach
tired A2
'you are tired'

4.2.1. Postposed Absolutives

The basic Absolutive Agreement rule positions the case marker following the predicative element. The absolutive is found postposed to the predicate in two constructions--stative clauses and transitive imperatives:

- (63) a. winaj hach
man A2
'you are/were a man'
- b. bakich hex
fat A2pl
'you (pl) are/were fat'
- c. tz'oMan hin
sitting A1
'I am/was sitting'

- (64) a. col hin
help A1
'help me!'
- b. il hoff
look A1pl
'look at us!'

4.2.2. Cliticization of the Absolutive Marker

In the presence of an aspect marker in the surface structure, the absolutive moves to a clitic position and becomes attached to the aspect marker:

- (65) a. *ch-__ 'apni hach
asp-__ arrive A2
'you arrive there'
- b. ch-ach apni
asp-A2 arrive
'you arrive there'
- (66) a. *ch-__ w-il hach
asp-__ E1-see A2
'I see you'
- b. ch-ach w-il-a
asp-A2 E1-see-stem aug^t
'I see you'.

The rule which suffixes the absolutive markers to the aspect markers is as follows:

(67) Absolutive Cliticization

In the presence of an aspect marker, the absolutive case marker is cliticized to it.

There is a word boundary between the compound [aspect + absolutive] and the compound [(ergative +) verb stem (+ stem final V)] as seen in (65b) and (66b). The word boundary is lost when the absolutive is in the third person as A3:∅.

Examples (68a) and (69a) correspond to underlying forms which exhibit the inaudible third person absolutive markers, while examples (68b) and (69b) show the corresponding surface transcriptions:

(68) a. x- \emptyset -haw-il naj
asp-A3-E2-see cl/him

'you saw him'

b. xawil naj
you saw cl/him

'you saw him'

(69) a. x- \emptyset -to naj
asp-A3-go cl/he

'he went'

b. xto naj
went cl/he

'he went'

The completive aspect marker alternates between xc- when an audible first or second person absolutive case marker is suffixed to it and x- when the absolutive is the inaudible third person \emptyset :

(70) a. xc-in haw-il-a
asp-A1 E2-see-stem aug^t

'you saw me'

b. x- \emptyset -aw-il naj
asp-A3-E2-see cl/him

'you saw him'

(71) a. xc-ach to-yi
asp-A2 go-stem aug^t

'you went'

b. x- \emptyset -to naj
asp-A3-go cl/he

'he went'

4.3. A Surface Structure Constraint: A > E¹³

4.3.0.

There is a constraint in Jacalteco on the relative ordering of the case markers to the effect that the absolutive always precedes the ergative if both occur in the same constituent. This constraint will be shown to operate in three constructions.

4.3.1. Possessed Nominal Predicate

As a general rule the absolutive marker is postposed to nominal predicates. However, if the nominal predicate is itself a possessed noun with a possessive ergative marker, the absolutive of the subject must precede the whole predicate:

(72) a. mam-e hach
father-suff A2

'you are a father'

b. s-mam naj
E3-father cl

'his father'

c. *s-mam naj hach
E3-father cl A2

'you are his father'

c. hach s-mam naj
A2 E3-father cl

'you are his father'

(73) a. *haw-amigo hot
E2-friend A1pl

'we are your friends'

- b. hoŋ haw-amigo
 A1pl E2-friend
 'we are your friends'

The constraint on the placement of the absolutive case marker may be formulated as follows:

(74) A > E Ordering Constraint

The absolutive case marker always precedes the ergative case marker within a predicative constituent.

4.3.2. Aspectless Embedded Transitive Verb

The absolutive object marker also precedes the ergative subject marker of an aspectless embedded transitive verb:

- (75) a. *x-∅-w-ilwe hin-col-ni hach
 asp-A3-E1-try E1-help-suff A2
 'I tried to help you'
- b. x-∅-w-ilwe hach hin-col-ni
 asp-A3-E1-try A2 E1-help-suff
 'I tried to help you'

The reordering of the absolutive marker in front of the ergative marker in spite of the absence of aspect marker is probably the result of an analogy with the finite transitive verb forms in which absolutives are always cliticized to the aspect marker and thus always precede the ergatives.

4.3.3. Prepositional Phrase Incorporation¹⁴

The analogical force of the A > E Ordering Constraint becomes manifest in this third construction. The prepositional phrase using the preposition -et may be incorporated in an intransitive verb form between the absolutive of the subject and the verb stem:

- (76) xc-ach w-et cattalwi
 asp-A2 E1-with dance
 'I dance with you'
- (77) xc-oŋ haw-et tzoteli
 asp-A1pl E2-with talk
 'you talked with us'

The translations provided under the examples (76) and (77) are the English equivalents of the Spanish translations provided by the informants. The incorporated object of preposition is taken to be the subject of the sentence. The translation provides a clear indication that an analogical process is operating in the construction. The sequence absolutive-ergative is treated as the equivalent sequence found in transitive verb forms in which the absolutive is the marker of the object and the ergative the marker of the subject.

4.4. Summary--Positions of Case Markers

The positions of the case markers are summarized below:

- | | |
|----------------------------------|-----------------------------------|
| (a) Possessive construction | <u>E</u> -noun |
| (b) Prepositional phrase: | <u>E</u> -prep noun |
| (c) Transitive finite verb: | asp- <u>A</u> <u>E</u> -verb |
| (d) Intransitive finite verb: | asp- <u>A</u> verb |
| (e) Stative predicate: | noun <u>A</u> |
| (f) Transitive imperative: | adj <u>A</u> |
| (g) Possessed nominal predicate: | <u>A</u> E-noun |
| (h) Aspectless embedded verb: | (A) E-verb |
| (i) PP-incorporation: | asp- <u>A</u> <u>E</u> -prep verb |

The ergative case marker is always in preposed position, as seen in (a), (b), (c), (g), (h), and (i). The absolutive case marker is found in three different positions: it is either postposed, (e) and (f), or cliticized on the aspect marker, (c), (d), and (i) or placed before the ergative marker under pressure for analogy, (g) and (h).

The insertion of the prepositional phrase between the absolutive marker and the intransitive verb stem in (i) also conforms to the ordering constraint that absolutive always precede the ergative.

5. CONCLUSIONS

Jacaltec marks all the NPs in nominal function for one of two cases—ergative or absolutive. The language is only superficially an ergative one. Besides the ergative type of case marking of main and finite clauses, a nominative/accusative type of case marking operates in all aspectless constituents characterizing the language as a mixed ergative type.¹⁵

The ergativity of Jacaltec is not a deep phenomenon. No rule of syntax needs to refer in its structural description to a specific case. As will be seen in Chapter 7 Disambiguation the relevant notion in the disambiguation mechanism is that of subject of transitive and not that of ergative case marking. As discussed in Chapter 11 Equi-NP Deletion, the rule of Equi-NP Deletion is restricted to the deletion of subjects of intransitive verbs but the notion of case is irrelevant since all subjects are marked ergative in aspectless embedded clauses in which deletion occurs. The same argument holds for the rule of Promotion in aspectual constructions discussed in Chapter 10 A Promotion Rule; for speakers with a restriction on which subjects may be promoted, the distinction has to be made between subjects of transitives and subjects of intransitives although they are all marked for ergative in the embedded clause.

NOTES

1. The choice of the plural morpheme depends on the presence of the noun classifier. Human beings take the non-human plural morpheme heb in the absence of a surface structure noun classifier:

(a) x'apni heb naj wuʔtaj
arrived pl cl(man) my brother

'my brothers arrived there'

(b) x'apni hej wuʔtaj

'my brothers arrived there'

(c) *x'apni heb wuʔtaj

In expressions with quantifiers, the presence of the plural morpheme is obligatory with human beings, but optional with non-humans:

(d) hun-kahan heb naj winaj
one-few pl cl(man) man

'a few men'

(e) hun-kahan (hej) no' txitam
one-few (pl) cl(animal) pig

'a few pigs'

(f) hun-kahan (hej) te' #hah
one-few (pl) cl(wood) house

'a few houses'

Numerals other than hune 'one' take one of three numeral classifiers, -aʔ [+ human], -c'oʔ [+ animal], -(e)b [-human, -animal]. In the presence of the numeral classifier, the plural morpheme becomes ungrammatical for inanimates:

(g) caw-aʔ heb naj winaj
two-cl[+ human] pl cl man

'two men'

- (h) ca-c'oH (hej) no' txitam
two-cl[+ animal] pl cl pig
'two pigs'
- (i) ca-b *(hej) te' Hah
two-cl[-human, -animal] pl cl house
'two houses'

2. The particle ha' is recognizable as the clefting particle which precedes clefted NPs at the head of the sentence. Sentences (17) and (18) later in the chapter demonstrate this point.
3. For a more complete discussion of the pronominal role of the noun classifier, see Chapter 4 Pronominalization. There are twenty-one noun classifiers, including a \emptyset classifier.
4. Clefting of a first or second person independent pronoun differs from clefting of a third person NP in that its corresponding case marker is not deleted from the verb form and the suffix -n(i) is not added to the transitive verb. Compare sentences (15) and (18). See Chapter 1, Section 2. Emphasis and Chapter 7 Disambiguation.
5. This is meant to also exclude the locative noun phrases which are not accompanied by a preposition. Consider the nouns -atut 'house' and txoHbal 'market place' and their locative use in the following sentences:

- (a) chin to txoHbal
I go market
'I go to the market'
- (b) aycoj ha mam watut
is your father my house
'your father is at my house'

6. The fact that the case marker does not appear on the noun itself will create a problem of ambiguity in transitive sentences in which either the subject or object NP will have been removed by deletion or movement. This is treated at length in Chapter 7 Disambiguation.
7. The inaudible nature of the absolutive third person was noted by Greenberg (1963) as one of the universal tendencies of ergative languages.
8. Most of the morphophonemic rules of Jacaltec apply in verb forms. Besides the dropping of the h- in suffixed case markers, the ergative markers E3 -y- and -s- are involved in two different processes.

I. -y- drops after the aspect marker; underlying E3 -y- is transcribed in the examples as -(y)-:

(a) t-(y)-et naj \longrightarrow tet naj
aug-E3-to cl/him
'to him'

(b) x- \emptyset -(y)-al naj \longrightarrow xal naj
asp-A3-E3-see cl/he
'he said'

II. both aspect markers assimilate to the manner and point of articulation of E3 -s-:

(c) ch- \emptyset -s-mak naj
asp-A3-E3-hit cl/he
↓
x-s-mak
↓
s-s-mak
↓
smak naj
'he hits it'

- (d) x- \emptyset -s-mak naj
 asp-A3-E3-hit cl/he
 ↓
 x-s-mak
 ↓
 s-s-mak
 ↓
 smak naj
 'he hit it'

9. Ergatives are also found in quantifier expressions of the type--the three of us, the three of them:

- (a) j-ox-wa \mathfrak{H} -il
 E1pl-three-cl[+ human]-suffix
 'the three of us'

- (b) s-yox-c'o \mathfrak{H} -al no'
 E3-three-cl[+ animal]-suff cl(animal)
 'the three of them(animals)'

10. Another form of the sentence could be:

- (a) ch- \emptyset -aw-a' t-(y)-et haw-anma
 asp-A3-E2-give aug^t-E3-to E2-heart
 yi \mathfrak{H} ha-kalom-al
 in E2-rich-ness
 'you enjoy being rich'

11. The rule of Conjunct Splitting presented in Chapter 1, Section 6. Coordination is another rule of movement affecting subjects and objects. Three alternative hypotheses (H1, H2, H3) will be made here to account for the fact that only the first of the two conjunct NPs inflects on the verb.

H1: Conjunct Splitting precedes Case Assignment.

This analysis would provide a simple account of case marking, but it would treat Conjunct Splitting

as a deep phenomenon and, in an unwarranted way, as a movement rule different from all other movement rules.

H2: Case Assignment precedes Conjunct Splitting and the rule of Case Assignment is reformulated.

The rule of Case Assignment would have to be reformulated to ensure that only the first of the two conjoined NPs (NP_1) be marked and the second (NP_2) be skipped over:

- (a) V $NP^{[NP_1]}$ boj $NP_2]_{NP}$ NP

The formulation of such a Case Assignment rule would necessitate the undesired complication--given a rule based on linear ordering--of having to refer to constituent structures.

H3: Case Assignment precedes Conjunct Splitting and a distinct rule of Person and Number Agreement is postulated.

No reformulation of the Case Assignment rule is necessary if a distinction is established between case marking and Person/Number Agreement. Case Assignment applies to major NP Constituents of a clause before Conjunct Splitting, and Person/Number Agreement is a late surface operation which operates on terminal nodes. This analysis would account for Case Marking in all complex NP constructions like the conjoined NP structure and the relative clause construction:

- d. $\frac{ix}{cl(woman)}$ x'ahaw moon
'the moon'
- (2) a. $\frac{ixim}{cl(corn)}$ wah tortilla
'the tortilla'
- b. $\frac{te'}{cl(wood)}$ hah house
'the house'
- c. $\frac{ch'en}{cl(rock)}$ machet machete
'the machete'
- d. $\frac{tx'otx'}{cl(earth)}$ xih pot
'the pot'
- (3) a. $\frac{no'}{cl(animal)}$ txitam pig
'the pig'
- b. $\frac{no'}{cl(animal)}$ mis cat
'the cat'
- c. $\frac{no'}{cl(animal)}$ xapun soap
'the soap'
- d. $\frac{no'}{cl(animal)}$ xafab sandal
'the sandal'
- (4) a. $\frac{\emptyset}{cl}$ tx'umel star
'the star'

- b. $\frac{\emptyset}{cl}$ ijatz load
'the load'

Examples (1a, b) illustrate two of the seven human categories and (1c, d) the phenomenon of anthropomorphism. Example (2) shows some of the inanimate categories. Example (3) shows how the animal category includes manufactured goods assigned to the semantic category of their primary substance. Example (4) contains two of the nouns which take a \emptyset classifier. This is the case of all abstract words in the language and some concrete words (new loans or others).

The only instance in which a noun is not accompanied by a noun classifier occurs when a noun is not in a nominal function; for example, if it is a nominal predicate (5) or an incorporated object (6) and (7):

- (5) a. winaj hach
man you
'you are a man'
- b. * $\frac{naj}{cl(man)}$ winaj hach
man you
'you are a man'
- (6) a. chin to ilo' txitam
I go to feed pig
'I go to feed the pigs'
- b. *chin to ilo' no' txitam
I go to feed cl(animal) pig
'I go to feed the pigs'
- (7) a. poho' si' xwu
cutting wood I am
(cutting wood I am)

- b. *poho' te' si' xwu
 cutting cl(wood) wood I am
 (cutting wood I am)

The nucleus combination [noun classifier + noun] is intrinsically definite:

- (8) xcam no' cheh
 died cl(animal) horse
 'the horse died'

- (9) ha' ix catin xwatx'en
 cleft cl(woman) Catherine made
 kap camixe
 cl(cloth) shirt
 'it is Catherine who made the shirt'

- (10) xelkatoj naj elkom sunil ch'en
 stole away cl(man) robber all cl(rock)
 melyu xincuba yul te' caxa
 money I kept in cl(wood) chest
 'the robber stole all the money I was keeping
 in the chest'

This is not to say that the noun classifier is a definite article. The noun classifier in itself does not carry the mark of definiteness. The proof of this is that the noun classifier combines with the indefinite article hune' 'a', as will be seen in the next section.

1.2. Indefiniteness As the Marked Term

The language specifically marks indefiniteness.² In the absence of the indefinite marker, all nominal expressions are taken to be definite.

Indefiniteness is marked with the indefinite numerals. The numeral hune' 'one' is used as the indefinite article and corresponds to the English 'a' and 'one':

- (11) a. xinlok hune' no' txitam
 I bought a/one cl(animal) pig
 'I bought a pig'

- b. swatx'e naj pel hune'
 made cl(man) Peter a/one
 te' xila
 cl(wood) chair
 'Peter made a chair'

- c. xwil hune' naj winaj
 I saw a/one cl(man) man
 'I saw a man'

Numerals other than one take one of the three numeral classifiers: -waf [+ human], -c'of [+ animal], -(e)b [- human, - animal] as in:³

- (12) a. xwil cawaf heb' no' winaj
 I saw two[+human] pl cl(man) man
 'I saw two men'

- b. xinlok cac'of no' txitam
 I bought two[+ animal] cl(animal) pig
 I bought two pigs'

- c. swatx'e naj pel cab
 made cl(man) Peter two[- human, - animal]
 te' xila
 cl(wood) chair
 'Peter made two chairs'

As observed earlier, the presence of the noun classifier in the indefinite NPs of (11) and (12) provides a proof that the noun classifier is not a simple definite article.

1.3. Possessive Article

The possessive marker is the ergative case marker with its prevocalic and preconsonantal allomorphs:

- (13) a. xcam no' hin-txitam
 died cl(animal) E1/my pig
 'my pig died'
- b. chinsay ch'en w-ome
 I look for cl(rock) E1/my-earrings
 'I am looking for my earrings'

1.4. Demonstrative Modifier

In Jacaltec the demonstratives are postnominal modifiers in an adjectival function. They mark proximity with ti' 'this' and distance with tu' 'that':

- (14) a. mac ay yet no' txitam ti'
 who is to her cl(animal) pig this
 'whose pig is this?'⁴
- b. chawoche kap cami~~x~~ tu'
 you like cl(cloth) shirt that

1.5. Co-occurrence of the Modifiers of the Noun

The language allows several modifiers to co-occur with the noun. A noun can be accompanied by its noun classifier, a possessive article, and a demonstrative modifier:

- (15) a. caw bakich no' ha-txitam tu'
 very fat cl(animal) E2/your-pig that
 'that pig of yours is very fat'
- b. caw ~~x~~woche kap ha-cami~~x~~
 very I like cl(cloth) E2/your-shirt
tu' la'
that sentence particle
 'I very much like that shirt of yours'

If the noun phrase is indefinite, the maximum combination is:

- (16) indef num + N Cl + NOUN
 a. hune' no' txitam
 a/one cl(animal) pig
 'a pig'
- b. cac'oñ no' txitam
 two(animal) cl(animal) pig
 'two pigs'

If the noun phrase is definite, the maximum combination is either (17) or (18) depending on the numeral:⁵

- (17) num + N Cl + poss + NOUN + dem
 hune' no' hin txitam tu'
 one cl(animal) my pig that
 'that one pig of mine'
- (18) N Cl + num + poss + NOUN + dem
 no' cac'oñ hin txitam tu'
 cl(animal) two(animal) my pig that
 'those two pigs of mine'

The numeral 'one' always precedes the noun classifier, whether the noun is definite or indefinite. The other numerals will precede the noun if the noun phrase is indefinite (19a) but will follow it if the noun phrase is definite (19b):

- (19) a. cac'oñ no' txitam
 two(animal) cl(animal) pig
 'two pigs'
- b. no' cac'oñ txitam
 cl(animal) two(animal) pig
 'the two pigs'

1.6. Noun Classifier Drop

A rule of Noun Classifier Drop will optionally delete the noun classifier in the presence of any of the other modifiers, indefinite or definite. This rule accounts for the surface

structure alternations of examples (20), (21), and (22):

- (20) a. xwil hune' no' txitam amak
I saw a cl pig patio
'I saw a pig in the patio'
- b. xwil hune' ---- txitam amak
I saw INDEF Cl Drop pig patio
'I saw a pig in the patio'
- (21) a. xcam no' hin cheh
died cl my horse
'my horse died'
- b. xcam ---- hin cheh
died Cl Drop POSS horse
'my horse died'
- (22) a. mac xwatx'en kap camiXe ti'
who made cl shirt this
'who made this shirt?'
- b. mac xwatx'en ---- camiXe ti'
who made Cl Drop shirt DEM
'who made this shirt?'

The rule of Noun Classifier Drop may be formulated as follows:

- (23) Noun Classifier Drop
In the presence of other determiners, the noun classifier of a full NP may be dropped.

1.7. Jacaltec Noun Modifiers--Conclusions

The most important point to be retained from this sketchy discussion of the modifier system of the Jacaltec language is that nouns are always accompanied by a noun classifier, like a gender marker, and that this nucleus of the NP [NOUN CLASSIFIER + NOUN] is intrinsically definite. The noun classifier is not a definite article since it was shown to accompany the noun even in the presence of the indefinite marker.

Indefiniteness is marked by indefinite numerals, in particular by the numeral hune' 'one' which functions as the indefinite article.

A second point is that while the language allows the co-occurrence of several or all of the modifiers of the noun, an optional rule of Noun Classifier Drop can delete noun classifiers when the noun is accompanied by any of the modifiers, indefinite or definite.

2. PRONOMINALIZATION

2.0.

Both Pronominalization under identity of reference (2.1.) and Pronominalization under identity of sense (2.2.) will be considered in order to show that they consist of the same deletion rule. The symmetrical application of the Noun Classifier Drop rule will be considered in Section 2.3.

2.1. Pronominalization Under Identity of Reference

In the discourse environment of two coreferential NPs (referred to as the "controller" NP and "target" NP), the "target" NP is reduced to the mere classifier by deletion of the noun:

- (24) xul naj pel -- xal naj ---- wetan
came cl Peter said cl DELETION to me
chubil xcanoj naj ---- hun-xa
that will stay cl DELETION one-other
semana yul coftob
week in town
'Peter came. He said that he was going to stay another week in town'

Of all the identical constituents, it is the noun classifier alone which is left behind as a pronoun. Adjectives and demonstrative articles are deleted together with the noun:

(25) xinlok hune' no' txitam bakich tu' yiH
 I bought a cl pig fat that for

kiH yaj xcam no' ewi
 fiesta but died cl/it yesterday

'I had bought that fat pig for the fiesta but it died yesterday'

When the coreferential NPs take a \emptyset (zero) classifier, the deletion rule applies the same way and no substitute pro-form is used:

(26) ilc'anab hun-kahan \emptyset tx'umel tu' la'
 look a-few cl star that particle

-- chawila \emptyset
 you see cl/them

'look at those stars! Do you see them?'

The pronominalized NP can be a subject (25), an object (26), an object of preposition (27), or a possessor NP (28):

(27) as ilwal yiH naj pel cat hawalni tet
 go to see to cl Peter and you say to

naj ta mach chu hin to
 cl/him that not is possible I go

sc'ataH naj tinaH
 at cl/his now

'go to see Peter and tell him that I cannot go to his house today'

(28) xal naj pel ta chuluj smam
 said cl Peter that will come his father

naj hecal
 cl(his) tomorrow

'Peter said that his father will come tomorrow'

The rule of Pronominalization under identity of reference therefore says:

(29) Pronominalization

Delete the noun and all other identical

constituents, leaving the noun classifier as pro-form.⁶

2.2. Pronominalization Under Identity of Sense

2.2.0.

Two NPs are identical in sense when they contain identical nuclei [noun classifier + noun] that are not coreferential. The identical nouns are always accompanied by at least one non-identical modifier. The rule of Pronominalization is the same as in (29) above: all identical constituents--both noun and modifiers--are deleted, except the noun classifiers.

2.2.1. Indefinite and Definite Pro-forms

If the NPs are indefinite, they are both composed of an indefinite numeral, a noun classifier, and a noun. The different numerals are kept together with the noun classifier after the deletion of the noun:

(30) cawati heb naj winaj xul ewi
 two(human) pl cl man came yesterday

wohtaj an wal hach xin oxwati heb
 I know 1p but you then three(human) pl

naj hawohtaj
 cl you know

'I know two of the men who came yesterday, but you know three of them'

Both NPs can also be definite in which case the deletion affects only the noun, leaving the classifier together with the non-identical modifiers:

(31) caw xwoche kap camixe ti' yaj ka'
 very I like cl shirt this but more

chawoche kap tu'
 you like cl that

'I like this shirt very much but you like that one best'

- (32) ay wala' chinloko hune' tx'al sintae
 is I want I buy one cl ribbon
yax ti' boj ca-c'itan-xa tx'al
 green this with two-piece-other cl
kan tu' la'
 yellow that particle
 'I would like to buy this green ribbon with
 those two yellow ones'

2.2.2. Possessive Pronouns

The possessive marker cannot stand alone after the deletion of the noun. The ergative case marker needs to be attached to a morpheme. The preposition -et will fulfill the role of morphemic support.⁷ The derivation of the pronominalization of a non-coreferential NP containing a possessive marker is roughly as follows:

(33) a. full NP

no' E3-txitam ix
 cl(animal) POSS-noun cl(woman)
 'her pig'

b. Pronominalization

no' E3-DEL ix

c. Possessive Support

no' E3-et ix

d. spelled out, with the prevocalic E3

no' yet ix
 'hers'

Other examples of non-coreferential possessive pronominalization are given in (34) and (35):

- (34) laʔan-to hin sayni no' hin txitam yaj
 prog-still I look for cl my pig but
 hach xawil no' hawet amak
 you you saw cl yours patio
 'I am still looking for my pig; but you, you saw
 yours in the patio'
- (35) kap hin chaʔ yax sat xwa'a'coj yiʔ
 cl my skirt green on I will wear in
 kiʔ wal hach kap hawet caj sat
 fiesta but you cl yours red on
 'it is my green skirt that I will wear for the
 fiesta, and you, your red one'

2.2.3. Noun Classifier Drop

When Pronominalization operates under identity of sense, a modifier always accompanies the noun classifier and the condition for the application of the rule of Noun Classifier Drop is met. If the rule applies, it obeys a constraint on symmetry and must apply simultaneously to the full controller NP and the pronominalized target NP:⁸

- (36) cac'itan (te') lahanxex xinloko wal hach
 two pieces (cl) orange I bought but you
 xin oxeb (te')
 then three (cl)
 'I bought two oranges, and you three'

- (37) xwil hune' (no') txitam amak yoc hun-xa
 I saw a (cl) pig patio plus one-other
 (no') yul caya
 (cl) in street
 'I saw a pig in the patio and another one in the
 street'

- (38) c'ulch'an jilni (kap) schat ix yaj
 pretty we see (cl) her skirt cl but
 ka' c'ulch'an-to (kap) hawet
 more pretty-yet (cl) yours
 'her skirt is pretty (looking) but yours is
 prettier yet'

After Noun Classifier Drop has applied the only pro-form of the NP is a numeral in (36) and (37), and a possessive pronoun in (38).

Not all non-identical modifiers of the noun may be left as the only pro-form in surface structure. While numerals and possessives may stand as independent pronominal forms, the post-nominal demonstratives may not:

- (39) a. *tzet tu'
 what that
 'what is that?'
 b. tzet hun-tu'
 what one/a-that
 'what is that?'

Hence Noun Classifier Drop does not apply when the only non-identical modifier left with a classifier is a demonstrative:⁹

- (40) a. caw xwoche kap camiXe ti' yaj ka'
 very I like cl shirt this but more
 chawoche kap tu'
 you like cl that
 'I like this shirt very much, but you like that
 one better'
 b. *caw xwoche ---- camiXe ti' yaj ka'
 Cl Drop
 chawoche ---- tu'
 Cl Drop

2.2.4. Conclusion: One Rule of Pronominalization

In both instances of Pronominalization considered in the above

sections, the constituents of the target NP which are identical with constituents of the controller NP are deleted, except for the noun classifier. Under identity of reference, the classifier remains alone as pro-form; under identity of sense the classifier pro-form is accompanied by the non-identical modifier. A non-identical possessive marker just receives a morphemic support -et.

Noun Classifier Drop may apply to the output of Pronominalization provided one of the non-identical modifiers is either a numeral or a possessive and can stand alone as pro-form in surface structure. Demonstratives were seen not to have the capacity to be pro-forms by themselves. When Noun Classifier Drop applies, it obeys a constraint on symmetry and deletes the classifier in both target and controller NPs.

3. PROPERTIES OF THE PRONOMINALIZATION RULE¹⁰

3.0. Jacaltec Pronominalization is a trace-leaving rule. The pro-form of the NP left behind is a noun classifier sometimes accompanied by modifiers. The properties of the rule of Pronominalization considered in this section concern the domain of application of the rule (3.1.), the directionality of the rule (3.2.), the tolerance of the language to the ambiguity produced by the rule (3.3.), and a discourse constraint on the rule (3.4.).

3.1. Domain of Application

3.1.1. Intrasentential

The rule of Pronominalization (Pron Del) applies intrasententially to a possessor NP or an object of preposition, neither of which undergoes reflexivization. The intermediate pronominalized stage of the derivation in *(41b) and *(42b) is followed by the application of a rule of Noun Classifier Deletion (Cl Del) which deletes pronoun classifiers. This rule

is discussed in Chapter 5 Noun Classifier Deletion and yields (41c) and (42c):

(41) a. *xacoj naj pel schamarro naj pel
put on cl Peter his blanket cl Peter
yibaŋ naj pel
on cl Peter

b. *xacoj naj pel schamarro naj ----
Pron Del
yibaŋ naj ----
Pron Del

c. xacoj naj pel schamarro ----
N Cl Del
yibaŋ ----
N Cl Del

'Peter put his blanket over himself'

(42) a. *ka' chach yoche naj pel sataj
more you he likes cl Peter than
naj pel
cl Peter

b. *ka' chach yoche naj pel sataj naj ----
Pron Del

c. ka' chach yoche naj pel sataj ----
N Cl Del

'Peter likes you more than himself'

The only NPs to undergo Reflexivization in Jacalteco are object NPs:

(43) a. *xil naj pel naj pel
saw cl Peter cl Peter
(Peter saw Peter)

b. xil sba naj pel
saw himself cl Peter
'Peter saw himself'

3.1.2. Across Boundaries

Pronominalization applies across sentence boundaries in discourse:

(44) xul naj pel ewi -- xitoj naj
came cl Peter yesterday brought cl/he
ixim ixim -- xwil naj yet may
cl/the corn I saw cl/him when morning
'Peter came yesterday. He brought the corn. I
saw him this morning'

It also applies across clause boundaries into complement sentences (45) and into adverbial clauses (46):

(45) xal naj pel chubil chuluj
said cl Peter that will come
naj hecal
cl/he tomorrow

'Peter said that he will come tomorrow'

(46) x'ok ix ix haxca xtx'aot ix
cried cl/the woman because was bit cl/she
yu metx tx'i'
by cl/the dog

'the woman cried because she had been bit by the dog'

As is characteristic of a trace-leaving rule, it operates freely; it may skip over clauses and operate into islands:

(47) xal naj pel chubil yohtaj ix malin
said cl Peter that knows cl Mary
tato mach smelyu naj
that not exist his money cl

'Peter said that Mary knows that he does not have any money'

- (48) xal naj pel chubil yohtaj ix malin
 said cl Peter that knows cl Mary
 tato ay hin gana hin mohyi boj naj
 that is my desire I marry with cl/him
 'Peter said that Mary knows that I would like to
 marry him'

Pronominalization is a distant rule operating over variables;
 this behavior is a characteristic of trace-leaving rules and
 conforms to the predictions of Hankamer (1971).

3.2. Directionality

The rule of Pronominalization in Jacaltec is unidirectional.
 It applies only from left to right. No pronominalized NP is
 ever found in a subordinate clause preceding a main clause.
 A pronoun form never precedes its controller NP:

- (49) a. ix ix xwatx'en ixim bitx txoñ
 cl/the girl made cl/the tamale sold
ixim yiñ howeb sentavo
 cl/them for five cents
 'the girl who made the tamales sold them for
 five cents'

- b. *ix xwatx'en ixim txoñ ixim bitx
 cl/them cl/the tamale
 yiñ howeb sentavo
 'the girl who made them sold the tamales for
 five cents'

- (50) a. lahwi yalni naj Xuwan hun ti' xtz'ubliayoj
 after said cl John one this spat down
naj sat tx'otx'
 cl/he on floor
 'after he said this, John spat on the floor'

- b. *lahwi yalni naj hun ti' xtz'ubliayoj
 cl/he
naj Xuwan sat tx'otx'
 cl John
 'after he said this, John spat on the floor'

- (51) a. c'ajam icham-xa ya' manel
 although old-already cl Manuel
 xto-ec'-pax ya' munil
 still-walks-also cl/he work
 'although Manuel is already old, he still walks
 to work'

- b. *c'ajam ichamxa ya' xtoec'pax ya' manel
 cl/he cl Manuel
 munil

'although he is already old, Manuel still walks
 to work'

- (52) a. masanto x'apni naj cap yatut
 not until arrived cl Gabriel his home
 xwa' naj
 ate cl/he

'not until Gabriel made it home did he eat'

- b. *masanto x'apni naj yatut xwa'
 cl/he

naj cap
 cl Gabriel

'not until he made it home did Gabriel eat'

3.3. Tolerance to Ambiguity

Jacaltec tolerates ambiguity which results from the impossi-
 bility of identifying the controller of a deletion.¹¹ Since
 Pronominalization operates over great distances, it is pos-
 sible that NPs which could be interpreted as controllers of
 the Pronominalization deletion intervene between the antece-
 dent NP and the pronominalized NP. This creates ambiguity as:

- (53) xal naj pel chubil yohtaj naj Xuwan
 said cl Peter that knows cl John
 tato xcam smam naj
 that died his father cl
 'Peter_i said that John_j knows that his_{i,j}
 father died'

Many potential cases of ambiguity of this type are eliminated by the rule of Noun Classifier Deletion which deletes all co-referential pronoun classifiers within certain boundaries. Examples (54) and (55) show how the application of this rule avoids ambiguous sentences:

- (54) xal naj pel chubil xil naj Xuwan
 said cl Peter that saw cl John
 smam naj
 his father cl
 'Peter_i said that John_i saw his_j father'
- (55) xal naj pel chubil xil naj Xuwan
 smam -----
 N Cl Del
 'Peter said that John_j saw his_j father'

The rule of Noun Classifier Deletion is the topic of the next chapter.

3.4. A Discourse Constraint

Pronominalization in Jacalteco obeys the discourse constraints discussed by Kuno (1972). Pronominalization does not apply to an NP in focus position which carries with it new, unpredictable information:

- (56) a. mac ka' chawoche naj pel ix
 who more you like cl(man) Peter cl(woman)
 malin mato ya' cap --
 Mary or cl(older person) Gabriel
 naj pel /*naj
 cl Peter cl/him
 'who do you like best? Peter, Mary or Gabriel?
 --Peter!/(him!)'

In spite of the fact that the classifier carries enough information in this case to distinguish among the different persons mentioned in the question, the classifier alone cannot be used as the pronominal form of the NP in the answer.

4. CONCLUSIONS

The noun classifier of the intrinsically definite nucleus combination [NOUN CLASSIFIER + NOUN] provides the basic pronoun form of the language.

Pronominalization is the result of a single deletion rule which deletes the noun and all the identical modifiers under both identity of reference and identity of sense.¹² The rule operates from left to right across clause boundaries, and ambiguity of controller is tolerated.

A surface rule of Noun Classifier Drop may delete the noun classifier in both a full NP and a pronoun form in the presence of other modifiers of the noun. The application of Noun Classifier Drop to a pronoun form is marked by two constraints. The rule may not apply if the only modifier left behind is a demonstrative which cannot stand alone as an independent noun form. Also, it must apply symmetrically to both controller and target NP.

NOTES

1. The noun classifiers are:

comam	male deity
comi'	female deity
ya'	respected non-deity, male or female
unin	infant
ho'	non-respected, non-infant, male kin
xo'	non-respected, non-infant, female kin
naj	non-respected, non-child, male non-kin
ix	non-respected, non-child, female non-kin
metx	dog
no'	animal
ixim	corn
tx'al	thread
tx'aŋ	fiber rope
kap	cloth
te'	plant
ha'	water
ch'en	stone
tx'otx'	dirt
ka'	fire
atz'am	salt

See Day (1973, a) for the original presentation of all the Jacalteco noun classifiers; Day (1973, b) and Breitborde (1973 a, b) for a semantic and sociolinguistic analysis of the noun classifiers for persons.

2. The indefinite is also the marked term in other languages, as in Turkish.
3. The numeral classifiers appear only in the plural and co-occur with one of the two plural morphemes heb [+ human]/hej [- human]. See Note 1 Chapter 3 Case Marking. The numeral hune 'one' may be analyzed as composed of the numeral hun 'one' (found in expressions like hun k'ahan 'a few' hun ti 'this') and a numeral classifier -e which remains the same for all nouns.

4. The possessive form yet is discussed in 2.2.2. Possessive Pronouns.
5. The indefinite article/numeral hune 'a/one' differs from the other numerals on two counts: As seen in Note 1 Chapter 3 Case Marking hune takes a distinct numeral classifier; and as seen here, it does not appear in the same position as the other numerals in definite NPs.
6. Notice how this Pronominalization rule constitutes an instance of a rule of deletion applying to a non-constituent.
7. The same morpheme -et is also the dative preposition, as in w-et 'to me'. However, the dative -et is accompanied by a t- augment in the second and third person. Compare -et as dative in (a) and (b) and -et as possessive in (c) and (d):
- (a) x-∅-(y)-al ix t-aw-et
asp-A3-E3-say cl/he aug^t-E2-to
'he said to you'
- (b) x-∅-(y)-al ix t-(y)-et naj
asp-A3-E3-say cl/she aug^t-E3-to cl/him
'she said to him'
- (c) haw-et hun tu'
E2-to one that
'is it yours?'
- (d) mac ay y-et hun tu'
who is E3-to one that
'whose is that?'
8. This is an area of variation among speakers. Some informants have a strictly symmetrical rule of Noun Classifier Drop while others do not.

9. The general constraint is that a demonstrative cannot be left as the only surface structure pro-form. Another manifestation of the constraint is that Pronominalization under identity of sense yields ungrammatical sentences when the only modifier accompanying an inaudible classifier is a demonstrative:

(a) caw c'ulch'an jilni hune' Ø
 very pretty we see one cl
 tx'umel ti' yaj ka' c'ulch'an
 star this but more pretty
 jilni hune' tu'
 we see one that

'this one star is pretty but that one is prettier'

(b) *caw c'ulch'an jilni Ø tx'umel
 very pretty we see cl star
 ti' yaj ka' c'ulch'an jilni
 this but more pretty we see
 Ø tu'
 cl that

10. This section is based on Hankamer's discussion of the properties of deletion rules (1971).
11. The constraint on the recoverability of the controller NP is a very weak one. It is weaker than the no-ambiguity constraint on the recoverability of the site of deletion. See Hankamer's "Unacceptable Ambiguity" (1973a) and the discussion on ambiguity in Chapter 5 Noun Classifier Deletion.
12. Postal (1970) made a similar proposal for the analysis of Pronominalization in English, with the addition of late rewriting rules to account for the surface structure pronoun forms. In Jacaltec, however, no rewriting

rules need to be postulated. This is also true of certain cases of pronominalization in Romance Languages such as French (a,b) and Spanish (c) in which definite articles and pronouns are the same:

- (a) la chanson : je la chante
 (b) le livre : je le lis
 (c) la carta : la escribo

5. Noun Classifier Deletion

Noun classifiers in pronominal function are subject to deletion according to a language specific rule of Noun Classifier Deletion. The characteristics of this rule are presented in Section 1. Two types of clause boundaries are identified on the basis of their behavior with respect to the rule in Section 2, and the relationship between the Jacaltec Noun Classifier Deletion rule and postulated universal constraints on deletion rule is considered in Section 3.

1. THE RULE OF NOUN CLASSIFIER DELETION

1.0.

Noun Classifier Deletion is the rule which accounts for the absence of noun classifiers in the surface structure of many sentences. (1b) and (2b) are derived from *(1a) and *(2a) by application of this rule:¹

(1) a. *xcolwa $\frac{ix}{cl/she}$ yiH smi' $\frac{ix_i}{cl}$
 helped $\frac{cl}{she}$ in her mother \frac{cl}
 'she_i helped her_i mother'

b. xcolwa $\frac{ix}{cl/she}$ yiH smi' ----
 helped $\frac{cl}{she}$ in her mother N Cl Del
 'she_i helped her_i mother'

(2) a. *mach choche $\frac{naji}{cl/he}$ yuXtaj $\frac{naji_i}{cl}$
 not likes $\frac{cl}{he}$ his brother \frac{cl}
 'he_i does not like his_i brother'

b. mach choche $\frac{naj}{cl/he}$ yuXtaj ----
 not likes $\frac{cl}{he}$ his brother N Cl Del
 'he_i does not like his_i brother'

The first noun classifier to appear in the sentence is referred to as the controller, the second as the target of the deletion.

1.1. Deletion Under Identity of Reference

Noun Classifier Deletion operates under a condition of identity of reference between the controller NP and the target NP. Deletion does not occur when the homophonous classifiers are not coreferential:

(3) a. *xil $\frac{naji_i}{cl/he}$ smam $\frac{naji_j}{cl}$
 saw $\frac{cl}{he}$ his father \frac{cl}
 'he_i saw his_i father'

b. xil $\frac{naji_i}{cl/he}$ smam ----
 saw $\frac{cl}{he}$ his father N Cl Del
 'he_i saw his_i father'

c. xil $\frac{naji_j}{cl/he}$ smam $\frac{naji_j}{cl}$
 saw $\frac{cl}{he}$ his father \frac{cl}
 'he_i saw his_j father'

d. *xil $\frac{naj}{cl/he}$ smam ----
 saw $\frac{cl}{he}$ his father N Cl Del
 'he_i saw his_j father'

Deletion is obligatory when the condition of identity of reference is met, as shown in the ungrammaticality of sentences *(1a), *(2a), and *(3a). It will be shown later that the deletion is sometimes optional when it applies across certain boundaries or when ambiguity is likely to arise.

The deletion of coreferential noun classifiers is an operation to be distinguished from that of Noun Classifier Drop discussed in the preceding chapter. The rule of Noun Classifier Deletion is an anaphoric rule which requires identity with a controller NP and affects coreferential pronouns. Noun Classifier Drop is not an anaphoric rule. The condition for its application is the presence of another modifier of

the noun and it may apply to a noun classifier of either a full NP or an NP which has undergone Pronominalization under identity of sense.

1.2. Pronoun Deletion

Noun Classifier Deletion is a rule which deletes noun classifiers in a pronominal form. It applies to the output of the rule of Pronominalization. As discussed in the preceding chapter, the rule of Pronominalization deletes the nominal part of the NP, leaving the noun classifier as a pronoun form. The rule of Noun Classifier Deletion further deletes the coreferential noun classifier. Example (4) demonstrates how Noun Classifier Deletion applies to a classifier which is a pronoun (4c) and not a modifier *(4d).

- (4) a. *xto naj_i kuwan boj smam naj_i kuwan
 went cl John with his father cl John
 (John_i went with John_i's father)
- b. *xto naj_i kuwan boj smam
 went cl John with his father
naj_i ----
 cl Pron Del
 'John_i went with his_i father'
- c. xto naj kuwan boj smam ----
 went cl John with his father N Cl Del
 'John_i went with his_i father'
- d. *xto naj kuwan boj smam
 went cl John with his father
 ---- kuwan
 N Cl Del John
 'John_i went with his_i father'

1.3. Function of the Deleted Classifier

All NPs in pronominal form may be affected by the Noun Classifier Deletion rule. Whether they are subject pronouns (5),

object pronouns (6), possessor NPs (7, 8), or objects of prepositions (9, 10, 11), they all undergo deletion:

- (5) a. *sat stx'at naj_i kuway naj_i
 on his bed cl sleeps cl/he
 'it is on his_i bed that he_i sleeps'
- b. sat stx'at naj kuwayi ----
 on his bed cl sleeps N Cl Del
 'it is on his_i bed that he_i sleeps''
- (6) a. *stx'i' naj_i xtx'ani naj_i
 his dog cl bit cl/he
 'it is his_i dog that bit him_i'
- b. stx'i' naj_i xtx'ani ----
 his dog cl bit N Cl Del
 'it is his_i dog that bit him_i'
- (7) a. *xil naj_i smam naj_i
 saw cl/he his father cl
 'he_i saw his_i father'
- b. xil naj smam ----
 saw cl/he his father N Cl Del
 'he_i saw his_i father'
- (8) a. *xcolwa yunin ix_i yi# smi' ix_i
 helped her child cl in her mother cl
 'her_i child helped her_i mother'
- b. xcolwa yunin ix_i yi# smi' ----
 helped her child cl in her mother N Cl Del
 'her_i child helped her_i mother'
- (9) a. *xacoj naj_i chamarro yiba# naj_i
 put cl/he blanket on cl
 'he put the blanket over himself'
- b. xacoj naj chamarro yiba# ----
 put cl/he blanket on N Cl Del
 'he put the blanket over himself'

- (10) a. *xcan yuXtaj naj_i sc'ataH naj_i
 stayed his brother cl with cl/he
 'his_i brother stayed with him_i'
- b. xcan yuXtaj naj sc'ataH ----
 stayed his brother cl with N Cl Del
 'his_i brother stayed with him_i'
- (11) a. *xa' smam naj_i ch'en melyu
 gave his father cl cl/the money
 tet naj_i
 to cl
 'his_i father gave him_i the money'
- b. xa' smam naj ch'en melyu
 gave his father cl cl/the money
 tet ----
 to N Cl Del
 'his_i father gave him_i the money'

There is no constraint on the controller NP. Like the target of the deletion the controller NP can fulfill any nominal function, and all NPs have the same power to delete.² The sample of possibilities listed in (12) corresponds to examples (5) to (11):

(12)

Example	Controller NP	Target NP
(5)	possessor of object of preposition	subject
(6)	possessor NP	object
(7)	subject	possessor of object
(8)	possessor of subject	possessor of object of preposition
(9)	subject	object of preposition
(10)	possessor of subject	object of preposition
(11)	possessor of subject	object of preposition

1.4. A Late Iterative Rule

The rule of Noun Classifier Deletion is a very late rule. It applies after all movement rules, applies always from left to right, and follows Pronominalization. Example (13) shows how Noun Classifier Deletion operates after Clefting. In example (13b) the possessor of the object of preposition which stands to the right of the coreferential subject classifier is deleted, but in (13d) it is the subject classifier which is deleted after the prepositional phrase containing the new target NP has been preposed to the whole sentence:

- (13) a. *xto naj_i boj smam naj_i
 went cl/he with his father cl
 'he_i went with his_i father'
- b. xto naj boj smam ----
 went cl/he with his father N Cl Del
 'he_i went with his_i father'
- c. *boj smam naj_i xto naj_i
 with his father cl went cl/he
 'it is with his_i father that he_i went'
- d. boj smam naj xtoyi ----
 with his father cl went N Cl Del
 'it is with his_i father that he_i went'

The rule of Noun Classifier Deletion applies simultaneously to all the pronominal classifiers to the right of the controller NP:

- (14) a. *xil naj_i smam naj_i boj yuXtaj
 saw cl/he his father cl with his brother
naj_i yul yatut naj_i
 cl in his house cl
 'he_i saw his_i father with his_i brother in his_i house'

- b. xil naj smam ---- boj
 saw cl/he his father N Cl Del with
 yuxtaj ---- yul yatut ----
 his brother N Cl Del in his house N Cl Del
 'he_i saw his_i father with his_i brother in his_i
 house'

1.5. Conclusion

The rule of Noun Classifier Deletion deletes pronominal forms of the noun classifiers under identity with a controller NP to the left. This rule is obligatory in simplex sentences. Both target NPs and controller NPs can fulfill any function in the sentence: subject, object, possessor NP, or object of preposition. The rule is a very late rule which applies iteratively after all movement rules and must be distinguished from the rule of Noun Classifier Drop.

2. NOUN CLASSIFIER DELETION AS A TEST OF BOUNDARIES

2.0.

In the preceding section the presentation of the rule of Noun Classifier Deletion was limited to its application within the boundaries of a simple sentence, but the rule applies across boundaries as well. Its applicability across boundaries provides a means of determining two types of boundaries--"transparent" and "opaque". "Transparent" boundaries do not prevent the application of the rule while "opaque" boundaries do.

Since the deletion of subject noun classifiers is not a point of variation among speakers, who all agree when it is either obligatory or ungrammatical, the types of boundaries were determined on the basis of the deletability of the subject. As will be discussed in Section 3, object deletion is a more complex matter and does not provide as good a test of clause boundary types. The deletion of an object or of an object of preposition is most often optional and variable

with speakers.³

2.1. Transparent Boundaries

2.1.1. Relative Clauses

The relative clause boundary is the most transparent of all the boundaries in that Noun Classifier Deletion applies freely to all types of NPs across it, as exemplified by sentences (15) to (19) below. The (a) sentences show the underlying full relative clauses. The (b) sentences show the Noun Classifier Deletions (N Cl Del) which have deleted the subject in (15b), the object in (16b), the object of preposition in (17b), and the possessor NP in (18b) and (19b). Noun Classifier Deletion is accompanied in those sentences by the Relative Clause Deletion (Rel Del).

- (15) a. stz'isa ix hune' camiXe tet
 sewed cl/she a shirt to
 snoh ----
 her brother N Cl Del
 'she sewed a shirt for her brother'

- b. xa' ix hune' camiXe stz'isa ----
 gave cl/she a shirt sewed N Cl Del
 ---- tet snoh ----
 Rel Del to her brother N Cl Del
 'she_i gave a shirt that she_i had sewed to her_i
 brother'

- (16) a. smak naj ix yul parce
 hit cl/he cl/her in park
 'he hit her in the park'

- b. mat yohtajoj ix naj xmakni ----
 not knows cl/she cl/him hit Rel Del
 ---- yul parce
 N Cl Del in park
 'she_i does not know the man who hit her_i in the
 park'

- (17) a. xcolwa naj yiH ix
helped cl/he in cl/her
'he helped her'
- b. mat yohtajoj ix naj xcolwa
not knows c̄l/she cl/him helped
---- yiH ----
Rel Del in N Cl Del
'she_i does not know the man who helped her_i'
- (18) a. swatx'e sc'ahol naj yatut ----
made his son c̄l his house N Cl Del
'his_i son made his_i house'
- b. xcin bey wila' yatut naj swatx'e
I went I see his house c̄l made
sc'ahol ---- ----
his son N Cl Del Rel Del
'I went to see his_i house that his_i son made'
- (19) a. spohtoj ni'an unin sxih ya'
broke little child her pot cl
'the child broke her pot'
- b. xchiwa sc'ul ya' yiH ni'an unin
was angry her heart cl at little child
xpohnitoj ---- sxih ----
broke Rel Del her pot N Cl Del
'the lady_i was angry at the child who broke her_i pot'

Not only can the rule of Noun Classifier Deletion operate freely down into relative clauses but it also operates out of relative clauses into the main clause, if the relative clause precedes any coreferential NP of the main clause:

- (20) a. *yiH molino xitoj ix_i ixim c'ochbil
to mill took c̄l/her corn shelled
yu ix_i
by c̄l/her
'to the mill she_i took the corn that she_i had shelled'
- b. yiH molino xitoj ix ixim ixim
to mill book c̄l/she cl/the corn
c'ochbil yu ----
shelled by N Cl Del
'to the mill she_i took the corn that she_i had shelled'
- c. ixim ixim c'ochbil yu ix xitoj
cl/the corn shelled by c̄l/her took
---- yiH molino
N Cl Del to mill
'it is the corn that she_i had shelled that she_i took to the mill'

In example (20b) the controller noun classifier is in the main clause and the target of the deletion is in the relative clause. In example (20c) the controller of the deletion is in the relative clause which has been preposed to the main clause by Clefting, making the subject NP of the main clause the target of the deletion.

2.1.2. Aspectless Embedded Clauses (CS#2)

In aspectless embedded clauses the subject noun classifier is obligatorily deleted if it is coreferential with an NP of the main clause:

- (21) ch-Ø-(y)-oche ix y-u-b ----
asp-A3-E3-like c̄l/she E3-do-fut N Cl Del
hune' munil tu'
a work that
'she likes to do that work'

- (22) sab x-Ø-'ichi naj s-munlayi ----
early asp-A3-begin cl/he E3-work N Cl Del
'he began to work early'
- (23) x-Ø-s-ta'we naj yul s-ti' ----
asp-A3-E3-commit cl/he in E3-mouth N Cl Del
s-cancanoj ---- cu-c'ataf
E3-stay N Cl Del E1pl-with
'he committed himself to staying with us'
- (24) ch-Ø-(y)-iptze naj ix Ø s-col-ni
asp-A3-E3-force cl/he cl/her A3 E3-help-suff
---- s-mi' ----
N Cl Del E3-mother N Cl Del
'he forces her_i to help her_i mother'

The presence of the case markers on the embedded verbs proves that the deletion is due to Noun Classifier Deletion and not to Equi-NP Deletion which deletes both the lexical pronoun classifier and its corresponding case marker on the verb. Equi-NP deletion is discussed in Chapter 11.

The situation is not as clear with the object classifier out of context; certain speakers delete a coreferential object classifier but others do not. The alternation is as shown in (25) below:

- (25) x-Ø-(y)-il ix_i Ø haw-il-ni
asp-A3-E3-see cl/she A3 E2-see-suff
ix_i/----
cl/her// N Cl Del
'she_i saw you looking at her_i'

The deletion of the object is less likely to occur with the causative verb construction or with verbs of desire:⁴

- (26) ch-Ø-(y)-oche ix_i Ø haw-il-ni ix_i
asp-A3-E3-like cl/she A3 E2-see-suff cl/her
'she likes you to look at her'

- (27) ch-ach y-iptze naj_i Ø ha-col-ni
asp-A2 E3-force cl/he A3 E2-help-suff
naj_i
cl/him
'he_i forces you to help him_i'
- (28) ch-Ø-iw naj_i Ø hin-mak-ni naj_i
asp-A3-is afraid cl/he A3 E1-hit-suff cl/him
'he_i is afraid that I will hit him_i'

Possessor NP and object of preposition may be optionally deleted:

- (29) x-Ø-(y)-il ix_i Ø ha-watx'e-n
asp-A3-E3-see cl/she A3 E2-make-suff
s-cami* ix_i/----
E3-blouse cl/N Cl Del
'she_i saw you make her_i blouse'

2.2. Opaque Boundaries

2.2.1. Coordinated Clauses

The subjects of coordinated clauses cannot be deleted. Coordinated sentences are marked with the suffix -n(i) on the verb of the second clause if the verb is transitive. There is no special marking if the verb is intransitive:

- (30) a. xto ix_i maɣtic'a xul ix_i
went cl/she never came back cl/she
'she went and never came back'
- b. *xto ix maɣtic'a xuli ----
went cl/she never came back N Cl Del
'she went and never came back'
- (31) a. speba ix_i te' pulta sajni ix_i
closes cl/she cl/the door opens cl/she
te' wentana
cl/the window
'she closes the door and opens the window'

- b. *speba ix te' pulta sajni ----
 closes cl/the cl/the door opens N Cl Del
 ix wentana
 cl/she window
 'she closes the door and opens the window'

The deletion of object classifiers is subject to variation among speakers. When the subjects are different, some speakers delete the object while others never delete it:

- (32) swatx'e naj xuwan te' meʔa stx'ahni
 made cl John cl/the table painted
 naj pel te' /----
 cl Peter cl/it// N Cl Del
 'John made the table_i and Peter painted it_i'
- (33) ix catin xpatz'ni te'_i lahanʔeʔ
 cl Catherine peeled cl/the orange
 ix tina xlonitoj te'_i /----
 cl Trinidad ate cl/it// N Cl Del
 'Catherine peeled the orange_i and Trinidad ate it'

When both the subject and the object are coreferential, the deletion of the object is more likely to occur with all speakers:

- (34) a. stz'ah ix_i kapj camiʔe sʔelni-pax
 washed cl/she cl/the shirt pressed-too
 ix_i ----
 cl/she N Cl Del
 'she washed the shirt_i and pressed it_i too'

In the appropriate context, as in the case of high predictability of the NP, both the possessor NP and the object of preposition can be deleted too.

2.2.2. Sequential Clauses

The deletion of the subject of sequential clauses coordinated with cat 'and then' is always ungrammatical:⁵

- (35) a. xuwa' ix_i cat swayoj ix_i
 eats cl/she and then sleeps cl/she
 'she_i eats and then she_i sleeps'
- b. *xwa' ix cat swayoj ----
 eats cl/she and then sleeps N Cl Del
 'she_i eats and then she_i sleeps'

Object deletion also varies with speakers and with the context of the discourse in general:

- (36) swatx'e naj xuwan hune' te'_i meʔa
 makes cl John a cl_i table
 cat stz'ahni naj pel te' /----
 and then paints cl Peter cl/it// N Cl Del
 'John is making a table_i and Peter will paint it_i'
- (37) a. hulujab ix_i cat hin colni ix_i
 let come cl/she and then I help cl/her
 'let her come and I will help her'
- b. *hulujab ix cat hin colni ----
 let come cl/she and then I help N Cl Del
 'let her come and I will help her'

The deletion of both the possessor NP and the object of preposition is discourse sensitive--that is, highly predictable target NPs are deleted more freely. Sentences (38) and (39) show the alternation of deletion according to the degree of predictability of the target NP within the context of two coordinated clauses:

- (38) chin toj wila' ix_i malin cat wa'ni
 I will go I see cl_i Mary and then I give
 hun ti' tet ix_i /----
 one this to cl/her// N Cl Del
 'I will go to see Mary and I will give her this'

- (39) chin toj ix_i malin cat winitoj
 I will go cl Mary and then I take
 scamiX ix_i/*----
 her blouse cl/*N Cl Del
 'I will go to see Mary_i and I will take her_i
 blouse'

2.2.3. Complement Sentences With Complementizer (CS#1)

The boundaries of a complement sentence with complementizer seem to be the most opaque of all the boundaries. They do not allow any deletion of noun classifier, not even that of a possessor NP or of an object of preposition:

- (40) chal naj_i chubil chuluj naj_i/*----
 says cl/he that will come cl/he// *N Cl Del
 'he_i says that he_i will come'
- (41) chal naj_i chubil xamak naj_i/*----
 says cl/he that you hit cl/him_i// *N Cl Del
 'he_i says that you hit him_i'
- (42) chal naj_i chubil yatut naj_i/*----
 says cl/he that his house cl/*N Cl Del
 hat xcan ix
 there stayed cl/she
 'he_i says that it is at his_i house that she stayed'
- (43) chal naj_i chubil aycoj yabil yif
 says cl/he that is disease in
 naj_i/*----
 cl/him// *N Cl Del
 lit: he_i says that there is sickness in him_i
 'he_i says that he_i has a disease'

2.3. Summary

The following chart summarizes the conditions under which the rule of Noun Classifier Deletion operates across boundaries:

(44) Classifier Deletion Across Boundaries

	<u>Transparent Boundaries</u>		<u>Opaque Boundaries</u>	
	Rel Cl	CS#2	Coord Cl	CS#1
N Cl Del of:				
subj	yes	yes	no	no
obj	yes	variable	variable	no
poss	yes	variable	variable	no
obj of prep	yes	variable	variable	no

On the basis of the deletability of the subject, which does not depend on either the speaker's dialect or the context, two types of boundaries were distinguished—"transparent," which allows deletion of the subject classifier and "opaque," which never allows the deletion of the subject classifier. Within this major division a set of subdivisions can be made. At one extreme stands the relative clause, which allows all deletions, and at the other extreme stands the complement sentence with complementizer (C#S1), which does not allow any deletion at all. Two intermediate constructions which differ with respect to the deletion of the subject (possible in the aspectless complement sentence, impossible in the coordinate sentence) share variability of the deletion of the other NPs under condition of predictability provided by the context.

3. CONSTRAINTS ON NOUN CLASSIFIER DELETION

3.0.

The three types of constraints on deletion rules discussed by Hankamer (1969, 1973a) will be considered in this section. They are a constraint on the recoverability of the deletion itself (3.1.), a constraint on the recoverability of the site of the deletion (3.2.), and a constraint on the recoverability

of the controller of the deletion (3.3.).

3.1. Constraint on the Recoverability of the Deletion

3.1.0.

This constraint states that one must be able to recognize that the rule of Noun Classifier Deletion has applied.

3.1.1. Recoverability of the Subject

Subject classifiers preceded by a coreferential classifier are always obligatorily deleted, as shown in examples (45) and (46):

(45) a. *smi' ix_i xil ix_i
her mother cl saw cl/she
'it is her_i mother that she_i saw'

b. smi' ix xila ----
her mother cl saw N Cl Del⁶
'it is her_i mother that she_i saw'

(46) a. *yabxubal naj_i xal naj_i
his language cl talked cl/he
'he_i talked his_i language'

b. yabxubal naj xala ----
his language cl talked N Cl Del
'he_i talked his_i language'

If the subject classifiers were not deleted, the sentences would be unambiguously interpreted as containing non-coreferential classifiers.

All subjects are deletable in Jacaltec. Examples (45) and (46) showed instances of subjects of transitive verbs being deleted by the possessors of the objects; examples (47) and (48) will show how subjects of intransitive verbs can also be deleted by a possessor NP of an object of preposition:

(47) a. *sat stx'at naj_i xway naj_i
on his bed cl slept cl/he
'he_i slept on his_i bed'

b. sat stx'at naj xwayi ----
on his bed cl slept N Cl Del
'he_i slept on his_i bed'

(48) a. *yiH smam naj_i xto naj_i
with his father cl went cl/he
'he_i went with his_i father'

b. yiH smam naj xtoyi ----
with his father cl went N Cl Del
'he_i went with his_i father'

The recoverability of the subject is based on the assumption that all verbs have expressed subjects. In the absence of an NP that could fulfill the function of subject in the surface structure, it will always be assumed that a coreferential subject has been deleted. In sentences (47) and (48) the only NP in the surface structure is clearly an object of preposition, and the subject is unambiguously understood as having been deleted under identity since the verbs are intransitive. In sentences (45) and (46) the absence of -n(i) suffixation on the transitive verb signals that the function of the initial NP is that of the object, and the subject is also unambiguously understood as having been deleted under identity. The more complex situation of a sentence with the pattern [PP V S O] is discussed in the next section.

3.1.2. Unrecoverability of the Object

The obligatory and unambiguous deletion of a coreferential subject contrasts with the inextricably ambiguous situation which arises when the coreferential classifier is an object NP. The ambiguity is caused by absence of overt objects in transitive clauses. As seen in Chapter 4 Pronominalization, the noun classifiers provide the basic pronoun forms in the language. However, the noun classifiers classify only concrete nouns and not even all of them. A number of concrete

nouns and all abstract nouns lack an audible noun classifier, because of which many sentences do not have any overt discourse anaphoric pronoun 'it'. In example (49b) the overt object is a pronoun classifier corresponding to a concrete noun. In examples (50b) and (51b) the lack of overt object corresponds to the lack of overt classifier for a concrete noun and an abstract sentential NP respectively:

(49) a. chawoche te' oŋ
you like cl avocado
'do you like avocados?'

b. ho' *woche te'
yes I like cl/it
'yes, I like them'

(50) a. chawil tx'umel
you see star
'do you see the star?'

b. ho' *wila
yes I see
'yes, I see it'

(51) a. chawoche tzet chal naj
you like what says cl/he
'do you like what he says?'

b. ho' caw *woche
yes very I like
'yes, I like it very much'

In a sentence of the pattern [PP V S O] in which the object is coreferential with the possessor of the proposed object of preposition, the deletion of the object classifier is not unambiguously recoverable. When taken out of context a sentence like (52) receives two interpretations. In the first reading the object is understood as being an unclassified object, and in the second reading it is understood as being a deleted

coreferential object:

(52) boj smam naj xil ix
with his father cl saw cl/she
'it is with his_i father that she saw it/him_i'

If the coreferential object is not deleted, the sentence is still ambiguous. The object may be interpreted as a non-coreferential object or as an undeleted coreferential object:

(53) boj smam naj xil ix naj
with his father cl saw cl/she cl/him
'it is with his_i father that she saw him_i/j'

The common occurrence of unspecified objects also interferes with the derivation of sentences in which the object is coreferential with the possessor of the subject, as in the pattern (54a) and the intermediate structure of (54b).

(54) a. V NP [NP NP] NP NP_i
V S NP_i NP₀
*xil smam naj_i naj_j
saw his father cl cl/him
'his_i father saw him_i'

If no deletion applies, the sentence will be interpreted unambiguously as referring to three protagonists:

(55) xil smam naj_i naj_j
saw his father cl cl/him
'his₁ father saw him₃;
1 2 3

If deletion applies, the only meaning is that the object is unspecified:

(56) xil smam naj
saw his father cl
'his father saw it'

The fact that the object may be a deleted coreferential noun

classifier is not recoverable. The sentence simply means 'his father saw it' and is never interpreted as 'his_i father saw him_i'. Thus, whether deletion applies or not, the wrong result is obtained, and the sentence does not even mean 'his_i father saw him_i' as a secondary reading.

3.1.3. Alternative Strategies

The language has recourse to two alternative constructions to remediate the situation. The first alternative is to prepose the subject and then delete the object:

(57) a. *smam naj_i x'ilni naj_i
 his father cl saw cl/him

'his_i father saw him_i'

b. smam naj x'ilni
 his father cl saw

'his_i father saw it/him_i'

(58) a. *stx'i' naj_i xtx'ani naj_i
 his dog cl bit cl/him

'his_i dog bit him_i'

b. stx'i' naj xtx'ani
 his dog cl bit

'his_i dog bit him_i/it'

The nature of the object is still ambiguous when the subject is preposed. It still may be either an unspecified object or a deleted coreferential object, but at least in one of the two readings the object is interpreted as the coreferential one.

The semantics of the sentence may determine which of the two readings is the preferred one. In sentence (57) the preferred reading is the one with the unspecified object, because the verb 'to see' is one of the most common transitive verbs to appear with no overt object. In sentence (58) the preferred reading is the one which interprets the absence of object as the result of the deletion of a coreferential NP,

probably because of the stronger predictability of the object.

If the need to solve the ambiguity is felt, another alternative construction representing a more drastic change of strategy is used. The sentence is passivized, and the passive subject--the old object--becomes the controller of the deletion. It deletes the possessor of the prepositional by-phrase which used to be the possessor of the subject:

(59) a. *x'illax naj_i yu smam naj_i
 was seen cl/he by his father cl

'he_i was seen by his_i father'

b. x'illax naj yu smam ----
 was seen cl/he by his father N Cl Del

'he_i was seen by his_i father'

No ambiguity arises and the deletion of the object of preposition is recoverable.

3.1.4. Conclusions on the Recoverability of the Deletion

The difference between the simple deletion of the subject classifier and the more complex deletion of the object classifier is a function of their recoverability. While deleted subjects are always recoverable, deleted objects are not. When a sentence lacks an expressed object, the first interpretation is always that the object is an unspecified one, and the second is that it is a deleted coreferential one. In the pattern [V S O] the object is always unambiguously interpreted as being an unspecified object. Because of the unrecoverability of a deleted coreferential object the language resorts in this case to alternative constructions resulting from either clefting the subject or passivizing the sentence.

3.2. The Site Recoverability Constraint

3.2.0.

The site recoverability constraint states that a deletion is

possible as long as one is able to recognize where it has occurred. The question does not arise when the deletion leaves a trace behind marking the exact location of the deletion, as with the deletion of an object of preposition or a possessor NP noun classifiers. Ambiguity arises when either the subject or the object of a transitive verb is deleted. This is characteristic of languages with a VSO or SOV word order in which the subject and the object are contiguous and the NPs themselves are not marked for case. In Jacaltec subjects and objects are assigned cases, but since the case markers are cliticized on the verb the remaining NP does not carry the information necessary to signal its function.

3.2.1. Ambiguity: Subject or Object Deletion?

The only construction in which the deletion of a classifier NP creates a structural ambiguity--i.e., ambiguity as to the site of the deletion--is in a sentence in which a preposed object of preposition is coreferential with either the subject or the object NP, as in the pattern (60a) and the intermediate structures (60b) and (60c):

- (60) a. $PP [P \begin{matrix} NP \\ PP \end{matrix} \begin{matrix} NP_i \\ PP \end{matrix}] PP \begin{matrix} V \\ V \end{matrix} \begin{matrix} NP_i/j \\ S \end{matrix} \begin{matrix} NP \\ O \end{matrix} j/i$
- b. yul yatut smam naj_i
in his house his father cl
xil naj_i ix
saw cl/he cl/her
'it is in his_i father's house that he_i saw her'
- c. yul yatut smam naj_i
in his house his father cl
xil ix naj_i
saw cl/she cl/him
'it is in his_i father's house that she saw him_i'

When Noun Classifier Deletion occurs in either (60b) or (60c)

the result is (61):

- (61) yul yatut smam naj xil ix
in his house his father cl saw cl/she/her
'it is in his_i father's house that she saw him_i'
'it is in his_i father's house that he_i saw her'

The circumstances allowing the ambiguity to arise are that there is no case marking on the remaining NP as was already mentioned but also that the deletion can apply over a non-coreferential NP, as will be discussed below in 3.3.

3.2.2. A Peripheral Gap Principle

Hankamer (1973a) argues that languages have a tendency to eliminate structural ambiguities such as the one shown in example (61) by drastic means. The most drastic solution is to make all deletions impossible and to reject any output of the deletion rule.⁷ A less drastic alternative is to impose a single reading to the surface structure sentence after deletion has applied.⁸ Jacaltec has an intermediate solution. The ambiguity is not completely eliminated, but one reading takes definite precedence over the other.⁹

If the surface structure is missing an NP--and this is noticeable since transitivity is morphologically marked on the verb--the missing NP is interpreted as the object rather than the subject:

- (62) boj smam ix xil naj
with her father cl saw cl/he/him
'it is with her_i father that he saw her_i/it'
'it is with her_i father that she_i saw him'

The first reading of (62) takes the gap of the missing NP to be the object in sentence final position although it is ambiguous regarding the nature of the object, which is either an unclassified object or a deleted coreferential one. The other reading of (62) which interprets the missing NP as a

coreferential subject is very secondary. Its acceptability would be improved if the sentence were placed in an appropriate context.

The deletion of the coreferential noun classifier is optional, but the sentence is still ambiguous if it does not apply:

(63) boj smam ix xil naj ix
with her father cl saw cl/he cl/her
'it is with her_i father that he saw her_{i/j}'

(64) boj smam ix xil ix naj
with father cl saw cl/she cl/him
'it is with her_i father that she_{j/i} saw him'

In either case, with or without deletion of the classifier, the sentences are ambiguous. The language tolerates the ambiguity, although a preferred reading is assigned to the sentence if deletion has been applied. The fact that the preferred reading is the one which takes the deleted NP to be the object, and therefore the last NP, conforms to Hankamer's Peripheral Gap Principle:

(65) Peripheral Gap Principle¹⁰
If any interpretation is possible for an unacceptable ambiguous structure, it will be that interpretation under which the location of the deletion site is peripheral rather than internal.

There is no "unacceptable ambiguity" in Jacalteco but the tendency observed in the language to minimize ambiguity conforms to the Peripheral Gap Principle.¹¹

3.3. A Constraint on the Recoverability of the Controller NP

3.3.0.

Deletion rules may be subject to the constraint that one should be able to identify the controller NP of a deletion.

This is not a strong constraint, and languages commonly allow ambiguity of this type, particularly in the process of Pronominalization.

3.3.1. No Constraint

This constraint does not hold for Noun Classifier Deletion either. Ambiguity of a controller NP is very generally tolerated. The ambiguity is complete if the two NPs which are potential controllers of the deletion stand next to each other:

(66) xil ix naj boj smam smi'
saw cl/she cl/him with his/her parents

N Cl Del

'she_i saw him with her_i parents'
'she_i saw him_j with his_j parents'

3.3.2. Distance

The ambiguity persists when one of the NPs is preposed to the left of the whole sentence and the distance between this potential controller and the target classifier increases. However, the reading which takes the NP closest to the target NP to be the controller of the deletion becomes the preferred reading. For some speakers it even becomes the only reading:¹²

(67) ha' ix x'ilni naj boj smam smi'
cleft cl/she saw cl/him with his/her

N Cl Del

'it was she that saw him with his parents'
'it was she that saw him with her parents'

(68) ha' naj xil ix boj smam smi'
cleft cl/he saw cl/her with her/his parents

N Cl Del

'it was him that she saw with her parents'
'it was him that she saw with his parents'

In sentence (67) the subject is preposed, with the corresponding marking of the verb, and the first reading becomes the one assuming coreferentiality with the classifier closest to the deletion site, the object. In sentence (68) the object has been preposed, and the reverse interpretation is given as a preferred reading, since the subject is now the classifier closest to the deletion site.¹³

An extra NP intervening between two potential controller NPs does not prevent ambiguity from arising, nor is one reading preferred over the other on the basis of closeness to deletion site:

(69) xacan naj slibro ix sat smeʔa
left cl/he her book cl on his/her table

N Cl Del

'he left her book on his/her desk'

Out of context both readings of sentence (69) are equally possible, although when placed in context, one might take precedence over the other.

3.3.3. Hierarchy of Controllers

A hierarchy can be established among the potential controller NPs. If it is a prepositional phrase that is preposed, subject and object classifiers take precedence over a possessor NP or an object of preposition in being interpreted as the most likely controller of the deletion:

(70) sat smeʔa naj xacan ix slibro
on his desk cl left cl/she her book

N Cl Del

'it is on his desk that she left her book'

This sentence has a clear reading, with preference being given to the closest classifier as the controller of the deletion.

The most distant potential controller--the possessor of an object of preposition to the left of the verb--does not even seem to create ambiguity. As seen above this was not the case when the more distant NP was a subject or object classifier.

Even if the semantics point to a particular reading, a sentence may still have the reading that is grammatically correct but semantically awkward. This is illustrated in example (71) in which the deleted classifier is the possessor of a skirt chaʔl, which is a typically feminine piece of clothing:

(71) sat stx'at ix xacan naj schaʔl -----
on her bed cl left cl/he his skirt N Cl Del

'it is on her bed that he left his skirt'

The preferred reading is still 'his skirt' because of the proximity of the classifier naj 'he' to the deletion site and because the other potential controller of the deletion is only the possessor of an object of preposition. The sentence will receive a second reading, however, providing the expected semantic interpretation 'it is on her bed that he left her skirt'.

The situation can also be such that the semantic reading takes precedence over the grammatical reading. This is the case with kinship terms which differentiate between male and female speakers. The term noh refers exclusively to the sibling of a female (without specifying the sex of that sibling) while the term -uxʔaj refers to the brother of a male. Sentences (72) and (73) receive only one interpretation, which is the one of the semantic reading:

(72) boj smam smi' ix xil naj snoh
with her parents cl saw cl/he her sibling

N Cl Del

'it is with her parents that he saw her sibling'

(73) boj smam smi' naj xil ix yuXtaj
 with his parents cl saw cl/she his brother

 N Cl Del

'it is with his parents that she saw his brother'

3.4. Conclusions on the Constraints on Classifier Deletion

Three different types of constraint were considered. The Noun Classifier Deletion rule was shown to obey a constraint on the recoverability of the deletion itself. When the deletion of the object is not recoverable, even as one of two possible readings for a sentence, the language has recourse to different strategies (Clefting and Passive). There is no constraint on the recoverability of the site of deletion. Structural ambiguity is tolerated even though a reading interpreting the missing NP as the peripheral NP is favored. The rule of Noun Classifier Deletion does not obey any constraint on the recoverability of the controller. A controller NP may delete a coreferential classifier to its right passing over intervening NPs. The resulting ambiguity is not eliminated.

4. CONCLUSIONS

As shown in Chapter 4 Pronominalization the noun classifiers are the third person pronouns of the language. However, it is common for those pronoun forms to be absent from surface structure. This chapter has considered the rule of Noun Classifier Deletion which accounts for the frequent lack of noun classifier in the surface structure of sentences in Jacalteco. The rule consists of the deletion of coreferential classifiers in a pronominal form and operates from left to right on classifiers in all functions--subject, object, possessor NP, and object of preposition.

The operation of the rule across clause boundaries provides a two-way classification of complex sentences. Two types of clause boundaries can be distinguished--"transparent" boundaries that the rule passes over and "opaque" boundaries which stop its application. This classification of clauses matches the one obtained with the application of the rule of an an Placement which will be discussed in Chapter 9 A Boundary Marker.

The Noun Classifier Deletion rule obeys a constraint on the recoverability of the deletion itself by using alternative strategies to ensure the recoverability of a coreferential object NP. It does not obey constraints on the recoverability of either the site of the deletion or the controller NP.

Noun Classifier Deletion is a very active rule of the language, subject to variation among speakers in sentences in which ambiguity is likely to arise. Its application across boundaries is in some cases conditioned by the context and does not result in as many ambiguous statements in real life situations as may have been inferred from this study of sentences out of context.

NOTES

1. A reminder about the structure of possessive and prepositional constructions will make the reading of the examples of this chapter easier: in the third person, possessed nouns (a, b) and prepositions (c, d) take a third person ergative marker and are followed by a noun classifier. The ergative marker is s- in front of a consonant and y- in front of a vowel:

(a) s-mam naj
 E3-father cl(man)
 'his father'

(b) y-unin ix
E3-child cl(woman)
'her child'

(c) s-c'ata# ix
E3-at cl(woman)
'at her house'

(d) y-iba# naj
E3-on cl(man)
'on him'

2. There is, however, a hierarchy of NPs between potential controllers of the deletion in an ambiguous sentence as will be discussed in subsection 3.3.3. Hierarchy of Controllers.
3. A list of examples representing all of the different constructions in which the noun classifier pronoun form could be used was checked with many speakers of all ages and levels of bilingualism. While all speakers agreed on whether a coreferential subject classifier must be deleted or not, no definite statement can be given about the deletion of the other noun classifiers. Bilingual speakers have a tendency to avoid deleting noun classifiers in ambiguous and complex sentences more than monolingual speakers do.
4. Those particular two classes of verbs--verbs of movement and verbs of desire--are the verbs which trigger Equi-NP Deletion in embeddings, as is discussed in Chapter 11 Equi-NP Deletion.
5. The coordinated sentences introduced by the sequential aspect marker cat are aspectless embedded clauses. However, they do not behave like the aspectless complement

sentences which have "transparent" boundaries, as seen in 2.1.2. above. The presence of the aspect marker cat marks the boundary as "opaque". Cat behaves like complementizers and conjunctions in stopping the application of the rule of Noun Classifier Deletion.

6. Once the subject classifier is deleted, the verb is in final position and the verbal stem final vowel reappears as in xil ix / xila#, xal naj / xala#. As discussed in Chapter 7 Disambiguation, the absence of the -n(i) suffix on the transitive verb means that the preposed NP is the object. If it were the subject, the verb would be marked with the -n(i) suffix:

(a) ha' naj x'ilni ix
cleft cl/he saw cl/her
'it is he who saw her'

7. See the English gapping constructions discussed by Hankamer (1973a, p. 43).
8. See the Navajo Relative Clauses discussed by Hankamer (1973a, p. 50).
9. Ambiguity arises only if the two NPs following the verb are both animate. No ambiguity arises if the subject is animate but the object is inanimate since the language does not have inanimate subjects of transitives. There is no problem of ambiguity when the subject is deleted in the sentence below:

(a) yul sca#a ix xacan ----
in her chest cl left N Cl Del
stzetet ----
her things N Cl Del
'she left her things in her chest'

The first deleted classifier is understood as the coreferential subject, since the inanimate object cannot be the subject of the transitive verb xacan 'left'.

10. Hankamer (1973a, p. 43).
11. The observed priority in reading is probably due to the tendency for a consistent interpretation of the NP that immediately follows the verb, namely for that of "subject."
12. Some speakers were found to have the no-ambiguity constraint and to not allow deletion to skip over an NP that could be a potential controller. This seemed to be more common among bilinguals for whom Spanish might have become the dominant language.
13. The closeness factor is probably analyzable as a semantic factor. The weak interpretation of sentence (67) corresponds to a sentence in which the deleted coreferential classifier is coreferential with the NP focus of the sentence which represents new information. The same phenomenon is observable in English:

(a) it was Bill who saw Tom with his parents

(b) it was Bill who Tom saw with his parents

In both sentences the first reading of his is Tom's parents. The strangeness of (a) with his referring to Bill seems to be due to the strangeness of the factual situation in which it is known that Tom and Bill's parents saw someone, but in which that someone who is not known is Bill.

6. Relative Clause Formation

The general characteristics of Jacaltec relative clauses are presented in Section 1. The data corresponding to relative clauses in all NP positions are discussed in Section 2, and the analysis of the process of relative clause formation follows in Section 3 in which a universal rule of Relative Deletion is distinguished from a language specific rule of ergative deletion and -n(i) suffixation. The latter rule corresponds to a general phenomenon of disambiguation in Jacaltec which will be the topic of the next chapter.

1. GENERAL CHARACTERISTICS OF JACALTEC RELATIVE CLAUSES

1.1. Generalities on Relative Clauses¹

Sentences (1b) and (2b) are examples of Jacaltec relative clauses:

(1) a. x'apni naj winaj ewi
arrived cl/the man yesterday
'he arrived yesterday'

b. xwil naj winaj x'apni ewi
I saw cl/the man arrived yesterday
'I saw the man who arrived yesterday'

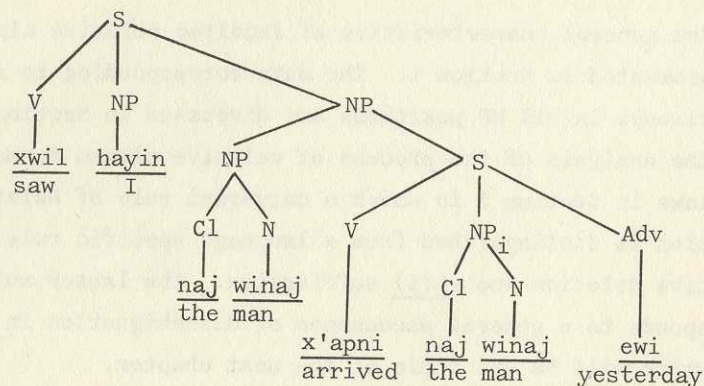
(2) a. xalok hune' kap cami?e
you bought one cl shirt
'you bought a shirt'

b. ?woche kap cami?e xaloko
I like cl/the shirt you bought
'I like the shirt you bought'

The first characteristic to be noted is that relative clauses are right-branching clauses, which is to say that

they are post-nominal, as seen in the tree diagram (3) which corresponds to example (1b):

(3)



This position conforms to the universal prediction of Greenberg that if a language has a VSO word order, relative clauses will follow their antecedent.²

The second characteristic to be noted is that relative clause formation in Jacaltec is not a movement rule but rather a deletion rule which operates from left to right, from the head NP to the coreferential NP inside the relative clause.

A third important characteristic of relative clauses in Jacaltec is the lack of relative markers to introduce the relative clause. No relative marker alters the VSO word order. Jacaltec has complementizers and definite articles, but neither of these constituents is ever used as relative marker.³

1.2. Nature and Function of the Antecedent

The antecedent can be a definite or an indefinite noun; it can be a full NP or a pronoun form:

(4) caw c'ulch'an ch'en ome xinloko --
very pretty cl/the earrings I bought --

ka' c'ulch'an ch'en xaloko
more pretty cl/the ones you bought

'the earrings that I bought are very pretty; the ones that you bought are prettier'

(5) lañan hin sayni hune' mac chu hin scolni
prog I look for one who can me he helps

yih hin munil
in my work

'I am looking for somebody who could help me in my work'

(6) xcin tzotel boj hune' naj winaj ay yala'
I talked with a cl man wants

xllokni hin cheh
buys my horse

'I talked with a man who wants to buy my horse'

(7) xpotx'lax metx tx'i' xtx'ani ni'an unin
was killed cl/the dog bit little child

-- xmaklax hune' x'ec' yih atle
-- was hit one went by in rush

'they killed the dog that bit the child and they hit one that was running by'

The antecedent of a relative clause can be in any function, and a sentence may contain several relative clauses:

(8) x'elkatoj naj winaj [xul yet kani]
stole away cl/the man came when last night

ch'en melyu [xawatij wet] boj xil
cl/the money you gave to me with cl/the

kape [xinlok yih kit]
cloth I bought for fiesta

'The man [who came last night] stole the money [you gave me] and the material [I had bought for the fiesta]'

- (9) say naj winaj [ch'ec' yiH ate]
looks for cl/the man goes by in rush
metx tx'i' [xtxa'ni ni'an unin] [sajchi
cl/the dog bit little child play
yul amak]
in patio
'the man [who goes running by] is looking for
the dog [that bit the child] [who was playing
in the patio]'

No distinction is made between restrictive and non-restrictive relative clauses.

1.3. Extraposition of Relative Clauses

The language has a tendency to avoid center embeddings, which arise whenever the relative clause is not embedded under a sentence final NP. In order to eliminate center embedded structures, the relative clauses may be either moved with the antecedent to focus position at the head of the sentence as in (10b) or extraposed to the end of the sentence with a copy of the antecedent, as in (10c):

- (10) a. xitij naj ah hoyom [x'apni
brought cl/the from Todos Santos arrived
yet kani boj sc'ahol] ixim
when last night with his son corn
'the man from Todos Santos [who came in last
night with his son] brought corn'
- b. naj ah hoyom [x'apni yet
cl/the from Todos Santos arrived when
kani boj sc'ahol] xitij
last night with his son brought
naj ixim
cl/he corn
'the man from Todos Santos [who came last night
with his son], he brought corn'

- c. xitij naj ah hoyom ixim [naj
brought cl/the from Todos Santos corn cl/he
x'apni yet kani boj sc'ahol]
arrived when last night with his son
'the man from Todos Santos brought corn, [the
man who came last night with his son]'

The movement of the relative clause to the right resembles the operation of Extraposition from NP since the antecedent remains in subject position in the sentence. However, a substitute antecedent is placed in front of the dislocated relative clause. This substitute antecedent may be the noun classifier or the numeral:

- (11) ahatoj tx'otx' xih yibaH te' meXa
is up cl/the pot on cl/the table
tx'otx'/hune' wohtaj chubil xpohtoj
cl/it//one I know that broke
'the pot is on top of the table, the pot that
I know is broken'

The copy of the antecedent makes it resemble the operation of Heavy NP Shift in which the whole complex NP is extraposed, both antecedent and relative clause.

2. RELATIVE CLAUSE FORMATION

2.0.

All the possibilities of relative connection will be considered in this section. They include the relative connection between a head noun and the subject or object of a simple sentence (2.1.), a possessor NP (2.2.), and an object of preposition (2.3.).

2.1. Relative Connection with Subjects and Objects of Simple Sentences

The formation of a relative clause in which the coreferential NP is subject of a transitive verb is shown in example (12b):

- (12) a. x- \emptyset -s-watx'e naj hun-ti'
 asp-A3-E3-make cl/he one-this
 'he made this'
- b. x- \emptyset -w-il naj x- \emptyset -__-watx'e-n
 asp-A3-E1-see cl/him asp-A3-DEL-make-suff
 ---- hun-ti'
 Rel Del one-this
 'I saw the man who made this'

By comparing the relative clause of example (12b) with the corresponding independent clause of example (12a) the following three features of the relativization process may be isolated:

- (a) the coreferential NP is deleted;
- (b) the ergative case marker corresponding to the coreferential NP is deleted;
- (c) a suffix -n(i) is added to the verb.

The deletion of the ergative case marker is clear in the case of relativization of subjects of transitive verbs. However, the inaudible nature of the third person absolutive case marker A3: \emptyset makes it impossible to tell whether deletion of case markers occurs in the relativization process of subjects of intransitives or objects of transitives. This uncertainty is signaled by the question mark in (13b) and (14b) below. Example (13) represents the relativization of the subject of an intransitive, and example (14) the relativization of the object of a transitive:

- (13) a. x- \emptyset -to naj ewi
 asp-A3-go cl/he yesterday
 'he went yesterday'

- b. x- \emptyset -w-il naj x-__-to ----
 asp-A3-E10see cl/him asp-?-go Rel Del
 ewi
 yesterday
 'I saw the man who went yesterday'
- (14) a. x- \emptyset -a-watx'e te' tx'at
 asp-A3-E2-make cl/the bed
 'you made the bed'
- b. x- \emptyset -w-il te' tx'at x-__-a-watx'e
 asp-A3-E1-see cl/the bed asp-?-E2-make

 Rel Del
 'I saw the bed that you made'

The relativization process for subjects of intransitives and objects of transitives appears to consist simply of the deletion of the coreferential NP (Rel Del). There is no suffixation on the verb and no way of telling by simple inspection whether deletion of the case marker has occurred or not.

2.2. Relative Connection with Possessor NP

In the relativization process of a possessor NP, only the coreferential NP is deleted; its corresponding ergative case marker is never deleted:

- (15) a. x- \emptyset -cam y-unin ya' cumi'
 asp-A3-die E3-child cl/the lady
 'the lady's child died'
- b. x- \emptyset -'ok ya' cumi' x- \emptyset -cam
 asp-A3-cry cl/the lady asp-A3-die
 y-unin ----
 Ee-child Rel Del
 'the lady whose child died is crying'

- (16) a. x-∅-'elka-lax-il-oj s-melyu naj
asp-A3-steal-PASS-out-suff E3-money cl
y-u heb naj elkom
E3-by pl cl/the robber
'his money was stolen by the robbers'
- b. w-ohtaj y-ic'ti'al hune' naj
E1-know E3-story one cl(man)
x-∅-'elka-lax-il-oj s-melyu ----
asp-A3-steal-PASS-out-suff E3-money Rel Del
y-u heb naj elkom
E3-by pl cl/the robber
'I know the story of a man whose money was
stolen by the robbers'

In both examples (15b) and (16b) the deletion of the ergative marker corresponding to the deleted NP would yield ungrammatical sentences.

2.3. Relative Connection with Object of Preposition

For the relativization of an object of preposition, as for the relativization of a possessor NP, the lexical coreferential NP is deleted but the ergative case marker remains:

- (17) a. ay-coj ka' y-alaʔ tx'otx' xih
is-against fire E3-under cl/the pot
'there is a fire under the pot'
- b. mach ha' ha' y-ul tx'otx' xih
is not cl water E3-in cl/the pot
ay-coj ka' y-alaʔ ----
is-against fire E3-under Rel Del
'there is no water in the pot under which there
is a fire'
- (18) a. xc-ach to y-iʔ naj winaj
asp-A2 go E3-with cl/the man
'you went with the man'

- b. xuwən s-bi naj winaj xc-ach to
John E3-name cl/the man asp-A2 go
y-iʔ ----
E3-with Rel Del
'John is the name of the man you went with'
- (19) a. x-∅-in-c'uba hin-tzetet y-ul
asp-A3-E1-keep E1-things E3-in
te' caʔa
cl/the chest
'I keep my things in the chest'
- b. x-∅-tz'ah te' caʔa x-∅-in-c'uba
asp-A3-burn cl/the chest asp-A3-E1-keep
hin-tzetet y-ul ----
E1-thing E3-in Rel Del
'the chest in which I keep my things burned'

The deletion is the same whether the preposition is one that can be inflected for the three persons (like -ibaʔ 'above' or -alaʔ 'under') or whether it is a preposition restricted to the third person (like -ul 'inside').

Relativization into the position of object of preposition is not absolutely parallel to relativization into the position of possessor NP. The difference is a variation between complete deletion of the lexical object of preposition, as in (17), (18), (19) and partial deletion of that object, which results in the presence of a pronoun in the relative clause as in (20), (21), and (22) below:

- (20) x-∅-tz'ah te' caʔa ch-∅-in-c'uba
asp-A3-burn cl/the chest asp-A3-E1-keep
hin-tzetet y-ul te' / ----
E1-thing E3-in cl/it// Rel Del
'the chest in which I keep my things burned'

- (21) x-Ø-'ayc 'ay te' xila tz'oŋan no'
 asp-A3-fall down cl/the chair sitting cl/the
 mis y-ibaŋ te' /----
 cat E3-on cl/it//Rel
 'the chair on which the cat was sitting fell down'
- (22) as poh te' hum ti' y-iŋ te' /----
 go change cl paper this E3-in cl/it//Rel Del
 ch-Ø-aw-ialoj s-tohol te' ixpix
 asp-A3-E2-take out E3-price cl/the tomatoes
 'go change this bill from which you will take out
 the price of the tomatoes'

The alternation between complete and partial deletion of the coreferential object of preposition depends on the speakers, the prepositions, and the sentences. No clear pattern was obtained to account for the variations.⁴

2.4. Conclusion: Hierarchy of NPs

The process of relativization in Jacaltec represents a manifestation of a hierarchy of NPs similar to the one discussed by Keenan and Comrie (1972). Following the hierarchy of functions--subject > object > possessor NP > object of preposition--the relativization process is marked by less and less deletions. The relativization of the subject of a transitive verb is the most marked of all the operations of relativization. It consists of the deletion of the coreferential NP, the deletion of its corresponding ergative case marker, and the suffixation of -n(i) on the verb. The extensive deletion-suffixation process contrasts with the simple deletion of the coreferential NP for the relativization of a possessor NP. Relativization of an object of preposition is the least marked of the operations since it does not even require the complete deletion of the coreferential NP. The complete deletion of the NP alternates with its restricted deletion by the rule of Pronominalization.

3. RELATIVE CLAUSE FORMATION: TWO STRATEGIES OR ONE?

3.0.

As discussed in the previous section, the case marker corresponding to the deleted coreferential NP is sometimes deleted and sometimes not. These two types of relativization will be referred to as REL 1 (deletion of case marker) and REL 2 (no deletion of case marker). The question to which this section addresses itself is whether the difference observed in the surface structure (REL 1 and REL 2) is the result of one general process of relativization or of two different "strategies." Three hypotheses will be considered. The first one, which takes relativization as a single process, will be rejected on the basis of its requiring a new type of cyclic rule referred to as the wrong cyclic rule (3.1.). The second considers relativization in Jacaltec as two independent strategies. It, too, will be rejected because of its failure to capture a generalization and its lack of explanatory power (3.2.). The third hypothesis will distinguish two rules, a rule of Relative Deletion proper and a rule of case marker deletion and -n(i) suffixation. This third hypothesis will be shown to be the most desirable account of the relativization process in Jacaltec (3.3.).

3.1. The Wrong Cyclic Rule

The hypothesis considered first is based on the assumption that there is only one strategy of relativization in Jacaltec consisting of the deletion of the coreferential NP and that the difference in case marking in the surface structure of relative clauses is to be accounted for by the relative ordering of the Relative Deletion rule and the two Case Marking rules--Case Assignment and Case Placement. In this hypothesis, Case Assignment is cyclic, and Case Placement is post-cyclic. There is no argument for Relative Deletion being

either cyclic or post-cyclic. If it is cyclic, it has to be ordered to follow Case Assignment; if it is post-cyclic, it has to be ordered to precede Case Placement, both requiring ordering of rule applications.

Relative Deletion must apply after Case Assignment. The reverse rule ordering would assign the wrong case to the remaining subject of a transitive verb after a coreferential relativized object has been deleted, as is illustrated below:

(23)		V	NP	NP		V	NP	NP
	Rel Del	V	----	NP		V	NP	----
	Case Assign			Abs			*Abs	

The rule ordering of (23) predicts that the subject of the relative clause in which the coreferential object NP has undergone Relative Deletion would be assigned an absolutive, which example *(24b) shows to be the wrong prediction:

(24) a. x-Ø-w-il te' tx'at x- -a-watx'e
 asp-A3-E1-see cl/the bed asp-DEL-E2-make

 Rel Del

'I saw the bed that you made'

b. *x-Ø-w-il te' tx'at xc- -ach-watx'e
 asp-A3-E1-see cl/the bed asp-DEL-A2-make

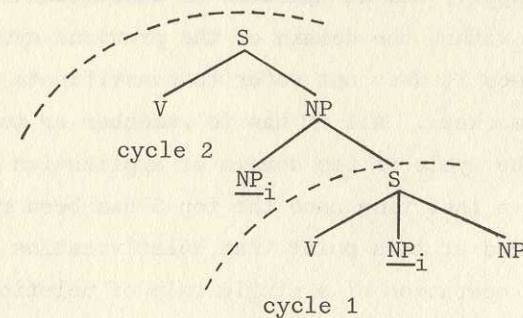
 Rel Del

The ordering in which Case Assignment precedes Relative Deletion corresponds to a feeding ordering. Relative Deletion affects the target NP after the NPs have been assigned a case and before the case markers are placed on the verb. It deletes both the target NP and its corresponding case marker which does not need to be specified in the structural description of the Relative Deletion rule.

However, this solution will not adequately handle the situation in which the case marker of the deleted NP remains (REL 2 constructions of possessive NP and prepositional phrase). In order to account for the presence of the case marker of the deleted NP in those constructions, Relative Deletion would have to apply after Case Placement and delete the NP alone. The only way that Relative Deletion could apply before Case Placement for REL 1 and after it for REL 2 would be if it were postulated that Case Placement is a cyclic rule, and not only a cyclic rule, but a wrong cyclic rule. A wrong cyclic rule is a rule which has to apply during a cycle with a domain one S larger than the domain where its conditions of application are first met.

The necessity for such a rule will be shown with two derivations representing both types of surface structure relative clauses. Only the stages relevant to the discussion here will be represented:

(25) Relativization of Subject

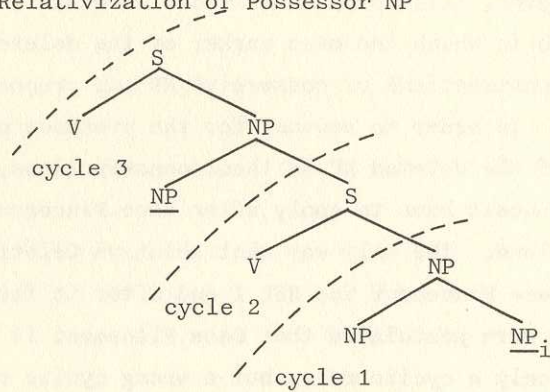


cycle 1: Case Assignment

cycle 2: Relative Deletion in cycle 1

Case Placement in cycle 1

(26) Relativization of Possessor NP



- cycle 1: Case Assignment
 cycle 2: Case Placement in cycle 1
 cycle 3: Relative Deletion in cycle 1

Case placement cannot be cyclic because of (25) and cannot be post-cyclic because of (26). It has to be wrong cyclic. Nothing triggers the application of the rule in the cycle in which it has to apply, and it operates on constituents entirely contained within the domain of the previous cycle. It is not global since it does not refer to constituents of two distinct phrase markers. All it has to remember or to do is to apply after the cycle of its domain of application has passed and to apply a last time once the top S has been reached. It may be concluded at this point that Relativization in Jacaltec is not the operation of a single rule of deletion which would refer only to the coreferential NP. As was shown in the previous paragraphs, this solution would require the awkward device of the cycle lag in the application of a wrong cyclic rule which, with the additional postulation that NPs and PPs define the domain of a cycle, would make this solution undesirable.

3.2. Two Different Strategies

Since relativization does not seem to be the result of a single deletion rule, the extreme opposite situation will be considered. This second hypothesis is that two independent strategies of relativization are at work in Jacaltec.

In this case REL 1 could be handled by the rule of Relative Deletion considered above—a rule which deletes the coreferential NP and its case marker together by being ordered after Case Assignment but before Case Placement. Alternatively it could be a rule of deletion applying after Case Placement and specifying both the NP and its corresponding case marker. REL 2 would be the result of a different deletion rule ordered after Case Placement which would delete the coreferential NP alone.

Several objections can be raised against this approach to the phenomenon of relativization in Jacaltec. The major one is that it misses the generalization of the coreferential NP being deleted in all cases. This is missing a generalization both on internal grounds and on universal grounds, since relativization commonly involves the deletion (partial or complete) of the coreferential NP. Therefore this hypothesis fails to distinguish the deletion of case markers as a language specific operation. It also fails to motivate the existence of such a rule. It offers no explanation for the fact that the deletion of a case marker happens with the subject of a transitive rather than with a possessor NP; neither does it provide any insight into the question of whether or not the absolute third person of the subject of an intransitive or the object of a transitive is deleted.

3.3. Two Different Rules

The third hypothesis to be considered remedies the objections raised by the second hypothesis. It consists of

treating relative clauses in Jacaltec as the output of two rules, only one of which is a rule of relativization proper. The basic rule of relativization is the one that deletes the coreferential NP alone. It is post-cyclic and applies after Case Placement. The deletion of the case marker and the suffixation of -n(i) in REL 1 constitute a separate rule. It is a language specific rule which corresponds to a disambiguating process found also in Clefting and Question. This rule is the topic of Chapter 7 Disambiguation.

The disambiguating function of the rule provides an explanation for the fact that it applies with subjects of transitives rather than possessed NPs. Such an analysis also points to the likelihood that absolute markers are not deleted in REL 1, since the deletion of ergative case markers coupled with the suffixation of -n(i) is a sufficient means of disambiguation. Analyzing the deletion of the case marker as part of a disambiguating mechanism also accounts for the optional use of this mechanism in complement sentences, as will be discussed in the next chapter.

It may be argued that an independent rule of Relative Deletion is not necessary and that the deletion of the coreferential NP is due to the application of the successive rules of Pronominalization and Classifier Deletion. The argument against such an analysis is that when an NP is relativized out of a complement sentence with complementizer, it is deleted. This deletion must be due to the application of a specific rule of Relative Deletion since the rule of Noun Classifier Deletion does not operate across the boundary of such a complement sentence.

4. CONCLUSIONS

Relativization in Jacaltec is possible in all NP positions--

subject, object, possessor NP, and object of preposition. It represents another manifestation of the hierarchy of NPs which was discussed by Keenan and Comrie (1972). The process of relativization consists of a more and more restricted deletion as one proceeds down the hierarchy of subject > object > possessor NP > object of preposition.

Relative clause formation is a rule of Relative Deletion which deletes the coreferential NP post-cyclically, after Case Placement.

In addition to Relative Deletion, a disambiguation mechanism consisting of the deletion of the ergative case marker and -n(i) suffixation is used in the relativization of subjects of transitives. This disambiguation mechanism is discussed in the next chapter.

NOTES

1. The study of relativization provides data for a classification of complex sentences in Jacaltec. On the basis of the application of the two rules of Noun Classifier Deletion (Chapter 5) and an placement (Chapter 9) the boundaries of relative clauses are characterized as being "transparent." Transparent boundaries do not stop the application of the rule, while "opaque" boundaries do. The two types of boundaries provide a distinction between "flat" complex sentence structures with transparent boundaries and "disjunctive" complex sentence structures with opaque boundaries.
2. Kuno (1974) analyzes the post-nominal position of relative clauses as the result of a perceptual strategy. In VSO languages, the post-nominal position of relative clauses avoids center embeddings which create perceptual

difficulty while a pre-nominal position would give rise to center embeddings in all cases of relativization.

3. In almost all the sentences involving relativization of the object of a preposition, a wh-word can replace the preposition and behave as a relative marker. It is generally bay meaning 'where':

(a) xwitoj te' carta tet naj
I will take cl/the letter to cl/him
bay cach tz'ibli
where you wrote
'I will take the letter to the man to whom you wrote'

(b) x'ayc'ay te' xila bay tz'oŋan
fell down cl/the chair where sitting
no' mis
cl/the cat
'the chair on which the cat was sitting fell down'

4. There is a further variation in sentences of this type. The prepositional phrases can be preposed to the head of the relative clause. No clear pattern of variation was observed. The movement of the prepositional phrase is not always possible, even when it involves the same preposition:

(a) wohtaj naj xawatoj ha carta
I know cl/him you sent your letter
tet ----
to Rel Del
'I know the man whom you sent your letter to'

(a') *wohtaj naj tet ---- xawatoj
I know cl/him to Rel Del you sent
ha carta
your letter
'I know the man to whom you sent your letter'

(b) x'ayc'ay te' xila tz'oŋan no'
fell down cl/the chair sitting cl
mis yibaŋ ----
cat on Rel Del
'the chair that the cat was sitting on fell down'

(b') x'ayc'ay te' xila yibaŋ ----
fell down cl/the chair on Rel Del
tz'oŋan no' mis
sitting cl/the cat
'the chair on which the cat was sitting fell down'

(c) xpohtoj tx'otx' xih xatxic hawixim
broke cl/the pot you cooked your corn
yul ----
in Rel Del
'the pot that you cooked your corn in broke'

(c') *xpohtoj tx'otx' xih yul ----
broke cl/the pot in Rel Del
xatxic hawixim
you cooked your corn
'the pot in which you cooked your corn broke'

One of the factors which prevents the prepositional phrase inside the relative clause from moving to the head of the clause is the presence of the antecedent in a prepositional phrase itself:

(d) ayatoj no' mis yibaŋ te' meŋa
 is on top cl/the cat on cl/the table
 ayachictoŋ yalaŋ ----
 you are stuck under Rel Del
 'the cat is on top of the table you are stuck
 under'

(d') *ayatoj no' mis yibaŋ te' meŋa
 is on top cl/the cat on cl/the table
 yalaŋ ---- ayachictoŋ
 under Rel Del you are stuck
 'the cat is on top of the table under which
 you are stuck'

(e) xcin tzotel boŋ naj winaj chach munla
 I talked with cl/the man you work
 boŋ ----
 with Rel Del
 'I talked with the man whom you work with'

(e') *xcin tzotel boŋ naj winaj boŋ
 I talked with cl/the man with
 ---- chach munlayi
 Rel Del you work
 'I talked with the man with whom you work'

7. Disambiguation

The topic of this chapter is a language specific disambiguation mechanism. The circumstances in which ambiguity would be likely to arise and the mechanism which prevents ambiguity are described in Section 1. Two independent arguments in support of this analysis are presented in Section 2. In Section 3 the mechanism is shown to resolve semantic as well as structural ambiguity and in the concluding section it is shown to support the notion of a hierarchy of clauses.

1. DISAMBIGUATION

1.1. Ambiguity: When and Why

Ambiguity might arise because the language has a VSO word order and because it does not mark cases on the NPs themselves but rather on the verb. This means that the only way to identify the subject from the object in transitive forms is by the relative position of the two NPs:

(1) a. x-∅-(y)-il naj ix
 asp-A3-E3-see cl/he cl/her
 'he saw her'

b. x-∅-(y)-il ix naj
 asp-A3-E3-see cl/she cl/him
 'she saw him'

The first NP is the subject and the second NP is the object. Rules that move or delete one of the two NPs would create ambiguity, since there would be no way of recovering the site of the gap, hence the function of the remaining NP. Clefting, Question, and Relative Deletion are three such rules. These rules have been previously described in Chapter 1, Section 2.

Emphasis, Section 3. Question, and Chapter 6 Relative Clause Formation. As an example, the pattern below is presented to illustrate how ambiguity could arise because of the application of Relative Deletion:

- (2) a. Transitive clause: asp-A E-verb NP NP
 b. Deletion of subject: asp-A E-verb -- NP
 c. Deletion of object: asp-A E-verb NP --
 d. Surface structure of
 (b) and (c): asp-A E-verb NP

The presence of two verbal case markers with only one NP following the verb would result in ambiguity, as shown in (2d). In such a circumstance it would be the lack of deletion of one of the case markers which would create ambiguity.

1.2. Marked Operations on Subjects

To eliminate the ambiguity resulting from the deletion or movement of an NP following a transitive verb, the language marks operations on the subject of a transitive by deleting the ergative case marker of the subject and by suffixing -n(i) on the verb.

Operations on objects consist uniquely of the preposing or deletion of the object NPs. The three sentences in example (3) correspond to the Clefting (C), Question (Q), and Relative Deletion (R) of the object of sentence (1), ix 'her':

- (3) C ha' ix xil naj
 cleft cl/her saw cl/he
 'it is her that he saw'

- Q mac xil naj
 whom saw cl/he
 'whom did he see?'

- R wohtaj ix xil naj
 I know cl/her saw cl/he
 'I know the woman that he saw'

In all three sentences the verb remains the same.

The sentences in example (4) represent the same three operations on naj 'he', the subject of sentence (1):

- (4) C ha' naj x'ilni ix
 cleft cl/he saw cl/her
 'it is he that saw her'

- Q mac x'ilni ix
 who saw cl/her
 'who saw her?'

- R wohtaj naj x'ilni ix
 I know cl/him saw cl/her
 'I know the man that saw her'

In all three sentences of example (4) the verb differs in two ways from the one in example (3): it contains a glottal stop and takes the suffix -ni. The presence of this glottal stop in surface structure signals the deletion of the ergative case marker.

The underlying verb form of example (3) is given in example (5), and that of example (4) is given in example (6):

- (5) x-~~ø~~-y-'il
 asp-A3-E3-see
 (6) x- -'il-ni
 asp-DEL-see-suff

The following two morphophonemic rules operate in verb form (5): first, the initial glottal stop is deleted after the ergative case marker, then the ergative -y- is itself deleted because it stands behind the aspect marker due to the inaudible nature of the third person absolutive ø. In verb

form (6) the deletion of the ergative case marker prevents the deletion of the initial glottal stop of the verb stem, and the suffixation of -n(i) accompanies the deletion of the ergative.

1.3. The Disambiguation Mechanism

The disambiguation mechanism is composed of two operations which obligatorily go together: the deletion of the ergative case marker and the suffixation of -n(i). One proof of the close link between the ergative deletion and the -n(i) suffixation is that in sentences with clefted first and second person personal pronouns, in which no deletion of the ergative subject markers occurs, the suffix -n(i) does not appear either:

(7) a. hayin x- \emptyset -w-ute hun-tu'
I asp-A3-E1-do one-that
'it is I who did that'

b. *hayin x- \emptyset - -'ute-n hun-tu'
I asp-A3-DEL-do-suff one-that

c. *hayin x- \emptyset -w-ute-n hun-tu'
I asp-A3-E1-do-suff one-that

(8) a. hach x- \emptyset -aw-il naj
you asp-A3-E2-see cl/him
'it is you who saw him'

b. *hach x- \emptyset - -'il-ni naj
you asp-A3-DEL-see-suff cl/him

c. *hach x- \emptyset -aw-il-ni naj
you asp-A3-E2-see-suff cl/him

In (7a) and (8a) the ergative case markers remain, and no suffixation occurs on the verb. Examples *(7b) and *(8b) are ungrammatical because of the deletion of the ergative case marker; examples *(7c) and *(8c) show how the suffixation of -n(i) occurs only with the deletion of the ergative case marker.

Another proof of the link between the two operations is found in operations out of complement sentences. In these complement sentences the disambiguation mechanism is not always used, as will be discussed in Section 3.2. Semantic Disambiguation. When disambiguation occurs, the suffixation of -n(i) and the deletion of the ergative case marker go together (9); when disambiguation is not used, the case marker is kept and there is no suffixation (10):¹

(9) w-ohtaj naj x- \emptyset - -lok-n-oj
E1-know cl/him asp-A3-DEL-buy-suff-fut
no' cheh
cl/the horse

'I know the man who will buy the horse'

(10) w-ohtaj naj x- \emptyset -(y)-al ix ta
E1-know cl/him asp-A3-E3-say cl/she that
x- \emptyset -s-lok-o' no' cheh
asp-A3-E3-buy-fut cl/the horse

'I know the man that she said that will buy the horse'

The suffixation of -n(i) is therefore a correlate of the deletion of the ergative case marker. Theoretically, the absence of the case marker should be able to provide the information necessary to signal the function of the NPs. The absence of the ergative case marker on the transitive verb could by itself indicate that the deleted or removed NP is the subject. However, because of the phonological nature of the clitic case markers and the morphophonemic rules which apply to verbal forms, it is not always possible to recognize whether or not the verb lacks the ergative case marker. This situation arises whenever the verb has an h-initial stem. Examples (11) and (12) show how the presence (11a) and the absence (12a) of the ergative case marker are not traceable on

the surface forms (11b) and (12b):

(11) a. x- \emptyset -y-hal
asp-A3-E3-say

b. xal

(12) a. x- \emptyset -hal-ni
asp-A3-DEL-say-suff

b. xalni

The only difference between (11b) and (12b) is the presence of the suffix -n(i) on the verb. This suffix compensates for the impossibility of perceiving the simple ergative deletion in surface structure. It has become the general marker of the disambiguating deletion of the ergative.

The suffix -n(i) is an intransitivizer suffix as shown by the intransitive future suffix -oj which must follow it:

(13) a. x- \emptyset -s-lok-o' naj no' cheh
asp-A3-E3-buy-fut cl/he cl/the horse
'he will buy the horse'

b. w-ohtaj naj x-hal-lok-n-oj
E1-know cl/him asp-A3-DEL-buy-suff-fut
no' cheh
cl/the horse

'I know the man who will buy the horse'

After the deletion of the ergative, the presence of the remaining absolutive together with the addition of the intransitive suffix -n(i) give the verb the appearance of an intransitive one.

2. ARGUMENTS FOR THE ABOVE DISAMBIGUATION ANALYSIS

2.0.

Two arguments will be presented in support of the above

analysis of disambiguation. In both cases the argument consists of an exception to the application of the disambiguation mechanism. Each instance corresponds to a lack of structural ambiguity.

2.1. Exception #1: Reflexive Sentences

When the subject and the object of a transitive verb are coreferential, the object undergoes Reflexivization. The reflexive object has the structure of a possessed NP:

(14) x- \emptyset -w-il hin-ba
asp-A3-E1-see E1-refl
'I saw myself'

In example (14) the subject inflects as an ergative first person, while the reflexive object inflects as an absolutive third person.

When the coreferential NPs are in the third person, only the reflexive object appears in surface structure after the verb:

(15) a. *x- \emptyset -(y)-il naj_i s-ba naj_i
asp-A3-E3-see cl/he E3-refl cl
'he saw himself'

b. x- \emptyset -(y)-il s-ba naj
asp-A3-E3-see E3-refl cl
'he saw himself'

When the subject NP undergoes Clefting, Question, or Relative Deletion, no disambiguation mechanism accompanies the movement or deletion of the subject:²

(16) C ha' naj x- \emptyset -s-potx' s-ba
cleft cl/he asp-A3-E3-kill E3-refl
'it is he who killed himself'

Q mac x- \emptyset -s-potx' s-ba
who asp-A3-E3-kill E3-refl
'who killed himself?'

R w-ohtaj naj x-Ø-s-potx' s-ba
E1-know cl/him asp-A3-E3-kill E3-refl

'I know the man who killed himself'

The lack of a disambiguation mechanism after an operation on the subject of a reflexive clause can be accounted for by a corresponding lack of ambiguity in the sentence. The NP following the verb in (16) is unambiguously identifiable as the reflexive object.³

2.2. Exception #2: The Coreferential Possessor of Object Constructions in which the subject is coreferential with the possessor of the object constitute another exception to the use of the disambiguation mechanism. In example (17) the verb form may alternate between smak, the regular form of the declarative verb, and xmakni, the form with deletion of ergative and suffixation of -n(i). Nevertheless the sentence receives only one meaning:

(17) C ha' naj smak/xmakni smam
cleft cl/he hit his father
'it is he_i who hit his_i father'
*'it is him_i that his_i father hit'

Q mac smak/xmakni smam
who hit his father
'who_i hit his_i father'
*'whom_i did his_i father hit?'

R wohtaj naj smak/xmakni smam
I know cl/him hit his father
'I know the man_i who hit his_i father'
*'I know the man_i whom his_i father hit'

The fact that the use of the mechanism has become optional precisely in a construction which is never ambiguous can be interpreted as another indication of the disambiguating role of this mechanism.

The reason sentence (17) receives the same interpretation

with either verb form is to be found in the impossibility of obtaining a grammatical sentence for the alternative reading in Jacaltec. Examples (18) and (19) show the two underlying sentences in which the deletion or movement of an NP should result in similar surface structures before the application of the disambiguation mechanism:

(18) *smak naj_i smam naj_i
hit cl/he his father cl
'he_i hit his_i father'

(19) *smak smam naj_i naj_i
hit his father cl cl/him
'his_i father hit him_i'

In accordance with the analysis of the disambiguation mechanism of the previous section, the clefting of the subject naj of *(18) for instance, should give the surface sentence (20):

(20) ha' naj xmakni smam
cleft cl/he hit his father
'it is he_i who hit his_i father'

On the other hand, the clefting of the object naj in sentence (19) should give the surface sentence (21):

(21) *ha' naj smak smam
cleft cl/him hit his father
'it is him_i whom his_i father hit'

Yet, as shown in example (17c), even without any marking on the verb, the sentence does not receive the interpretation of (21).

Sentence (21) does not exist for native speakers of Jacaltec because the sentence from which it is derived does not exist. There is no surface structure sentence corresponding to example (19) in the Jacaltec language. This phenomenon has already been described in Chapter 5, Section 3.1. Constraint

on the Recoverability of the Deletion. Because of the rule of Noun Classifier Deletion, sentence (19) must be realized either as a clefted sentence or as a passive sentence for the coreferentiality of the object and the possessor of the subject to be recoverable.

The clefted construction is still an ambiguous sentence, but it receives at least one interpretation in which the object is a coreferential NP:

- (22) ha' smam naj xmakni
 cleft his father cl hit
 'it is his_i father that hit it/him_i'

However, since the only active construction in which the coreferentiality of the object is maintained is the one in which the subject is clefted, it is impossible to cleft the object. Languages do not allow the simultaneous clefting of two NPs.⁴ Therefore there is no Jacaltec clefted sentence with the meaning 'it is him_i that his_i father hit'. The closest possible sentence for this meaning is the one in which the object becomes the subject of a passive verb before it is clefted:

- (23) xmakot naj yu smam
 was hit cl/he by his father
 'he_i was hit by his_i father'
- (24) ha' naj xmakot yu smam
 cleft cl/he was hit by his father
 'it is he_i who was hit by his_i father'

To recapitulate: there is no sentence in Jacaltec with a VSO word order corresponding to the reading 'his_i father hit him_i'. To obtain this reading, the sentence has to undergo either Clefting of the subject or Passivization. It is in this perspective that a sentence like 'he_i hit his_i father' has to be viewed. Since there is no clefted or question

sentence on the object in 'his_i father hit him_i' except in passive voice, Clefting and Question on the subject of 'he_i hit his_i father' does not create ambiguity. One of the two potential readings is ungrammatical. This explains why, when Clefting, Question, or Relative Deletion applies to the subject of 'he_i hit his_i father', the disambiguation mechanism is not required and is used optionally.

2.3. Conclusion

The two exceptions to the deletion of the ergative case marker and the suffixation of -n(i) in operations on subjects of transitives were shown to correspond to two constructions in which ambiguity was, in fact, unlikely to arise, thus providing arguments for analyzing the double operation of deletion and suffixation as one of disambiguation.

3. TWO TYPES OF DISAMBIGUATION

3.0.

Two types of disambiguation can be distinguished in Jacaltec--an obligatory structural disambiguation in simple sentences and an optional semantic disambiguation in complex sentences.

3.1. Structural Disambiguation

The expression "structural disambiguation" refers to the fact that the role of the disambiguation mechanism is to ensure the recoverability of the original site of the moved or deleted NP. The use of the mechanism locates the gap created by the removal of the NP in the first NP position after the verb, hence the subject position. No consideration is given to the semantic disambiguation provided by the selectional rules of transitive verbs:

V	S	O
Transitive	Animate	(In)animate

(25) stahdze ix te' cape
 dried cl/she cl/the coffee
 'she dried the coffee'

(26) a. *stahdze tz'ayic xil kape
 dried sun clothes
 'the sun dried the clothes'

b. xtah xil kape yu tz'ayic
 dried clothes by/because sun
 lit: the clothes dried because of the sun
 'the sun dried the clothes'

Despite the lack of semantic ambiguity when the object is an inanimate NP, the disambiguation mechanism is used systematically in simple sentences:

(27) C ha' ix x- \emptyset -tahtze-n
 cleft cl/she asp-A3-DEL-dry-suff
 te' cape
 cl/the coffee
 'it is she who dried the coffee'

Q mac x- \emptyset -tahtze-n te' cape
 who asp-A3-DEL-dry-suff cl/the coffee
 'who dried the coffee?'

R w-ohtaj ix x- \emptyset -tahtze-n
 E1-know cl/her asp-A3-DEL-dry-suff
 te' cape
 cl/the coffee
 'I know the woman who dried the coffee'

Since there cannot be inanimate subjects of transitive verbs, no semantic ambiguity would arise when C/Q/R apply to the subjects, as in (27).

3.2. Semantic Disambiguation

Semantics will play a role in sentences in which the target of Clifting, Question, or Relative Deletion is the subject of a complement sentence. In contrast with the systematic use

of the disambiguation mechanism in simple sentences, the use of the disambiguation mechanism in complement sentences will depend on the selectional rules of transitive verbs and the nature of the object. The disambiguation mechanism commonly does not apply if the sentence is semantically unambiguous:

(28) C ha' naj xloknoj/*sloko' hin cheh
 cleft cl will buy my horse
 'it is he who will buy my horse'

Q mac xloknoj/*sloko' hin cheh
 who will buy my horse
 'who will buy my horse?'

R wohtaj naj xloknoj/*sloko' hin cheh
 I know cl/him will buy my horse
 'I know the man who will buy my horse'⁵

(29) C ha' naj xal ix ta
 cleft cl/him said cl/she that
 sloko' hin cheh
 will buy my horse

'it is he that she said will buy my horse'

Q mac xal ix ta sloko' hin cheh
 who said cl/she that will buy my horse
 'who did she say will buy my horse?'

R wohtaj naj xal ix ta
 I know cl/him said cl/she that
 sloko' hin cheh
 will buy my horse

'I know the man that she said will buy my horse'

In (28) the target NPs are subjects of simple sentences, and disambiguation is obligatory; while in (29) they are subjects of complement sentences, and the disambiguation mechanism is not used.⁶ On the other hand, disambiguation must apply in complement sentences in which both NPs are animate:

(30) C ha' naj xal ix ta
 cleft cl/he said cl/she that
 ch'ilnoj/*chila' naj pel
 will see cl Peter
 'it is he that she said will see Peter'

Q mac xal ix ta ch'ilnoj/*chila'
 who said cl/she that will see
 naj pel
 cl Peter
 'who did she say will see Peter?'

R wohtaj naj xal ix ta
 I know cl/him said cl/she that
 ch'ilnoj/*chila' naj pel
 will see cl Peter
 'I know the man that she said will see Peter'

Since both NPs are animate, the semantics of the complement sentence alone cannot provide the necessary information on the function of the NPs.

3.3. No Disambiguation in Aspectless Embedded Clauses

The mechanism of disambiguation applies only in finite sentences—that is to say, it does not apply in aspectless embedded complement sentences (CS#2) in which ambiguity arises and remains unresolved. There is neither deletion of the case marker nor suffixation of -n(i) for disambiguation. The -n(i) suffix on the embedded verb in (31) is not the disambiguating morpheme. It is another instance of -n(i) suffixation which, in this case, is a characteristic of aspectless transitive verbs. See Chapter 8, Section 1.2. CS#2: Aspectless Embedded Complement Sentence for a description. Notice the presence of the ergative marker E3 -y- in the following sentences:

(31) C ha' naj laʔan Ø y-il-ni
 cleft cl/him prog A3 E3-see-suff
 ix
 cl/she//her
 'it is he that she is looking at'
 'it is he that is looking at her'

Q mac laʔan Ø y-il-ni ix
 who prog A3 E3-see-suff cl/she//her
 'who is she looking at?'
 'who is looking at her?'

R w-ohtaj naj laʔan Ø y-il-ni
 E1-know cl/him prog A3 E3-see-suff
 ix
 cl/she//her
 'I know the man whom she is looking at'
 'I know the man who is looking at her'

The presence of the marker of embedding -n(i) is a contributing factor to the impossibility of suffixing the disambiguating morpheme -n(i).

Another reason the disambiguation mechanism is not free to apply is that the complete deletion of an NP is impossible in a transitive embedded aspectless clause. The rule of Equi-NP Deletion applies only to the subject of an intransitive verb in Jacalteco. A subject of a transitive may not be deleted with its case marker, leaving the verb with the other case marker.⁷ This restriction is further discussed in Chapter 11 Equi-NP Deletion.

The lack of a disambiguating mechanism does not always result in a completely ambiguous sentence. Sometimes the semantics may determine a preferred reading:

(32) w-ohtaj naj laʔan Ø s-mak-ni ix
 E1-know cl/him prog A3 E3-hit-suff cl/her
 'I know the man who hit her'

In (32) the gap is generally taken to be in the subject position since it is culturally more predictable that a man hit a woman than the reverse, although the other reading could also be obtained if the context were clear enough.⁸

Example (33) represents a "neutral" situation--i.e., a situation in which the semantics of the verb and the NPs do not impose or favor a reading:

- (33) mac x-∅-aw-il ∅ s-mak-ni ix
 who asp-A3-E2-see A3 E3-hit-suff cl/her
 'who did you see her hit?'
 'who did you see that hit her?'

When the semantics of the NPs do not favor any reading, as in (35), the first reading is usually the one interpreting the gap as a peripheral one and identifying the remaining NP after the verb as the subject.⁹

3.4. Conclusions

The process of ergative deletion and -n(i) suffixation in simple sentences is insensitive to the disambiguation that the semantics of the NPs and the verb could provide. However, the semantic content of the clause becomes a determining factor in the use of the disambiguation mechanism in complement sentences. Its use becomes optional if the semantics alone provide a non-ambiguous reading of the sentence. Structural characteristics of aspectless embedded clauses--another instance of -n(i) suffixation and a restriction on the deletion of case markers--prevent the disambiguation mechanism from operating in such clauses and the resulting ambiguity is tolerated.

4. CONCLUSIONS

The double operation of ergative deletion and -n(i) suffixation constitutes a general disambiguation mechanism which operates whenever the subject of a transitive verb undergoes

deletion or movement as in the operations of Clefting, Question, and Relative Deletion.

This instance of -n(i) suffixation is the correlate of an ergative deletion which is not always audible and sufficient to disambiguate a sentence. It represents one of the uses of the -n(i) suffix which is also found in Jacaltec as a marker of coordination (Chapter 1, Section 6. Coordination) and as a marker of aspectless embedding (Chapter 8, Section 1.2. CS#2).

To support the argument that the ergative deletion and the -n(i) suffixation constitute a disambiguation mechanism, two exceptions to the application of this double operation were presented and accounted for on the basis of a corresponding lack of structural ambiguity.

Two types of disambiguation--structural and semantic--were distinguished in the language. Structural disambiguation operates systematically in simple sentences. In sentences with complement sentences introduced by complementizers semantics play a role in ensuring a non-ambiguous reading of the sentence, and the disambiguation mechanism is not always used. Ergative deletion and -n(i) suffixation are required only if semantic ambiguity is likely to arise, as when both subject and object are animate.

These two types of disambiguation--structural and semantic--point to a hierarchy of clauses in which different types of clauses behave differently with regard to ambiguity. The following hierarchy of sentencehood can be outlined: independent clauses > CS#1 > CS#2. In an independent clause a systematic structural disambiguation operates. In a complement sentence with complementizer (CS#1), which shares with the independent clause ergative case marking rules, aspect marking, and negation, no ambiguity is tolerated either, but only a selective semantic disambiguation is required. Further down

the hierarchy is the aspectless complement sentence (CS#2) in which ambiguity is tolerated. The disambiguation mechanism cannot apply because of the restricted nature of the structure of this clause which is discussed in Chapter 12, Section 6.

Constraints on CS#2.

NOTES

1. The only times the deletion of the case marker and the suffixation of -n(i) did not go together were in confused responses of informants in those complement sentences in which -n(i) suffixation as become optional. Some sentences were then given with the suffixation but without the deletion of the case marker. See Section 3.2. Semantic Disambiguation for a discussion of operations out of complement sentences.
2. With some speakers there is sporadic use of -n(i) in reflexive sentences, which seems to be due to analogy.
3. Reflexive objects are not preposed:

(a) *ha' s-ba naj spotx' (naj)
 cleft E3-refl cl kill (cl/he)
 'it is himself that he killed'
4. See Kuno and Robinson's 1972 article "Multiple Wh-Questions" for a discussion of a "general constraint that prohibits dislocation of more than one constituent from its original location."
5. The underlying form of xloknoj and sloko' are:

(a) ch-~~ø~~--lok-n-oj
 asp-A3-DEL-buy-suff-fut

(b) ch-~~ø~~-s-lok-o'
 asp-A3-E3-buy-fut

Two morphophonemic rules apply to the aspect markers of these verb forms:

ch --> x / -C

x --> ø / -s

6. The data show a marked difference between sentences in the completive aspect and sentences in the incomplete-future aspect. The examples given in (29) are in the future. If they were in the completive aspect, the disambiguation mechanism would be preferably used:

(a) wohtaj naj xal ix ta
 I know cl/him said cl/she that

xlokni hin cheh
buy my horse

'I know the man that she said that bought my horse'

This difference of behavior in the two different aspects remains to be explained.

7. In aspectless embedded clauses the -n(i) suffix co-occurs with the ergative of the subject to produce a mixed verb form in which the transitive verb is inflected for both subject and object but takes an intransitivizer suffix which is followed by an intransitive future suffix when it is in the future.
8. It is "culturally more predictable" that a husband beats his wife; a woman beats another woman or a child. Women argue with men, but do not beat them.
9. A similar strategy was noted in sentences in which Noun

Classifier Deletion deletes an NP after the verb and the resulting sentence is ambiguous because of the impossibility of telling whether it is the subject or the object which is missing. See Chapter 5, Section 3.2. A Site Recoverability Constraint.

8. Complement Sentences

The subject of this chapter is the complement sentence in Jacaltec. In Section 1 the structure of each of the three types of complement sentence will be presented: complement sentence introduced by a complementizer (CS#1), comparable to the English that-clause; aspectless embedded clause (CS#2), comparable to the English gerund complementation; infinitival clause (CS#3), corresponding to the English infinitival complement. In Section 2 the discussion will turn to the functions that these complement sentences fulfill with respect to the main verb—sentential object, sentential subject, and sentential complement. In Section 3 special attention will be given to those main verbs which are idiomatic expressions composed of a verb and a body part. In Section 4 a phenomenon of Inversion will be presented in which the main verbs hala 'to say' and ay -ala 'to want' appear in an embedded form after their complement sentences.

1. TYPES OF COMPLEMENT SENTENCES

1.0.

For each type of complement sentence, the following points will be considered--

- A) the internal structure of the clause including the complementizer, the aspect and case marking, and the verb suffixation;
- B) the semantic categories of verbs which take this type of complement sentence;
- C) the type of boundary the complement sentence has with respect to negation, Noun Classifier Deletion, and

placement of the particle an.

1.1. CS#1. Complement Sentence with Complementizer

1.1.1.

The first type of complement sentence is one introduced by a complementizer and followed by a full finite verb inflected for aspect and person:

(1) x-∅-(y)-al naj chubil xc-ach y-il naj
asp-A3-E3-say cl/he that asp-A2 E3-see cl/he
'he said that he saw you'

(2) x-∅-aw-abe tato ch-in to-j hecal
asp-A3-E2-hear that asp-A1 go-fut tomorrow
'you heard that I will go tomorrow'

1.1.2. Complementizers

There are two main complementizers, chubil and tato. chubil is an innovation of the Jacaltenango dialect and corresponds to a factive "that."¹ tato means either 'that' or 'if' and introduces an expected, supposed, or believed fact:²

(3) ham walni tato ay mac chuluj
I thought that is who will come
'I thought that somebody was coming'

(4) *munla naj tato chatohla naj
works cl/he if you pay cl/him
'he will work if you pay him'

The complementizer tato is a compound form. Each of its constituents ta and to can occur alone.³ In some cases the use of ta alone excludes either chubil or tato or both of them:

(5) chin xiw ta/*tato/*chubil chin ilot beti'
I am afraid that I am seen here
'I am afraid to be seen here'

(6) xwabe ta/*tato/*chubil chuluj
I heard that will come
naj hecal
cl/he tomorrow
'I heard that he will come tomorrow'

(7) cochHe to/*ta/*tato/*chubil chuluj
it seems that will come
ha' #tab
cl/the rain
'it looks like it is going to rain'

Sometimes both complementizers are used together, in which case chubil always precedes tato as in:

(8) xintxumiloj chubil tato hin kumal xal
I suspected that that my criticism said
heb ix
pl cl/they
'I suspected that they(women) were talking about me'

(9) xabe ix chubil tato mach *chalaxoj-toj
heard cl/she that that not is given-to go
ix ilo' ki#
cl/she to see fiesta
'she heard that she will not be allowed to go and see the fiesta'

When there is a chain of complement sentences of type CS#1, the complementizers alternate, the first one being chubil:

(10) xal naj chubil xal smam naj tet
said cl/he that said his father cl to (him)
tato spojbac'oj naj alcal chubil chuluj
that announced cl/the alcalde that will come
naj presidente yi# hun-xa semana
cl/the president in one-other week
'he said that his father told him that the alcalde announced that the president will come in another week'

The succession of complementizers could also be: chubil....
chubil tato....tato.

The complementizer is optional with some verbs of desire and in this case is more often absent than not:

- (11) sje hin c'ul (tato) chin munla beti'
agrees my stomach (that) I work here

'I agree to work here'

- (12) ay wala' (tato) chach wayi
I would like (that) you sleep

'I would like for you to sleep'

- (13) choche naj (ta) xmunla naj
like cl/he (that) works cl/he

yiH smam
with his father

'he likes to work with his father'

A clause introduced by a complementizer behaves like an independent sentence with respect to case marking and aspect marking. Case marking follows the ergative type of case assignment--ergative for the subject of a transitive and absolutive for the subject of an intransitive and the object of a transitive. Aspect marking is as in finite main clauses and no aspect or tense constraint holds between main and subordinate verbs.

1.1.3. Verbs Taking CS#1⁴

Verbs taking complement sentences with complementizers can be categorized as verbs of communication, mentation, perception, knowledge, emotion, and desire. Appendix C provides a list of verbs for each category. Communication verbs are the only verbs to take CS#1 as their only complement sentence type. They take either chubil or tato, depending on the factivity of the statements and the speaker's attitude:⁵

- (14) xbinayi chubil xa-xmohyi ix malin
was announced that already-married cl Mary

'they announced that Mary had already married'

All other groups of verbs take either CS#1 or CS#2 as complement sentences:

- (15) xintxumiloj chubil tato hin kumal
I suspected that that my criticism

chal heb ix
say pl cl/they

'I suspected that they(women) were talking about me'

- (16) wohtaj tato ay tzet ch'alaxoj jet bay
I know that is what is given to us where

choH toj tu'
we go that

'I know that they will give us something where we are going'

- (17) xwabe chubil xto heb ya' kanwal
I heard that went pl cl/they ask

yiH ix juana
for cl Jane

'I heard that they(parents) went to ask for the hand of Jane'

If verbs of emotion and desire take a complementizer, they will take the complementizer tato only:

- (18) chin xiw tato chach ayc'ayoj swi'
I am afraid that you fall down its top

te' Hah
cl/the house

'I am afraid you will fall from the roof'

- (19) chim sje ha c'ul tato chotl to
 maybe want your stomach that we go
 paxyal yul ha' niman
 for a walk in water big
 'maybe you would like for us to go for a walk
 by the river'

1.1.4. Boundaries of CS#1

The boundary of a complement sentence introduced by a complementizer is opaque--the rule of Noun Classifier Deletion does not operate across it (Chapter 5 Noun Classifier Deletion), neither does the placement of the first person particle an (Chapter 9 A Boundary Marker):

- (20) a. xal naj_i chubil chuluj naj_i
 said cl/he that will come cl/he
 'he said that he will come'

b. *xal naj chubil chuluj ----
 N Cl Deletion

- (21) a. xal hin mam an [chubil xcam
 said my father 1p that died
 no' cheh]
 cl/the horse
 'my father said that the horse died'

b. *xal naj hin mam [chubil xcam no' cheh] an

Complement sentences of the CS#1 type may be negated:

- (22) xal naj chubil mach chuluj naj
 said cl/he that NEG will come cl/he
 'he said that he will not come'

1.2. CS#2: Aspectless Embedded Complement Sentence1.2.1. The Embedding Process

This type of complement sentence has no complementizer and its verb exhibits the following feature of embedding process:

- A) lack of aspect marker;
 B) nominative/accusative type of case marking, which is to say that subjects of intransitive as well as of transitives are assigned the ergative case;
 C) suffixation of -n(i) or future tense agreement on the transitive verbs.

Examples of this gerund complement sentence are:

- (23) x-∅-(y)-il ix hin ha-mak-ni
 asp-A3 E3-see cl/she A1 E2-hit-suff
 'she saw you hit me'

- (24) yilal ∅ cu-cuy-ni abxubal
 necessary A3 E1pl-learn-suff Jacaltec
 'it is absolutely necessary that we learn
 Jacaltec'

- (25) x-∅-tzala naj haw-ul y-atut
 asp-A3-rejoice cl/he E2-come E3-house
 'he is happy that you came to his house'

- (26) pet x-∅-'ichi cu-tzotel
 right away asp-A3-start E1pl-talk
 boj ix
 with cl/her
 'we started talking with her right away'

Stative clauses may not appear in aspectless embedded complement sentences. They must always be introduced by a complementizer or a conjunction of subordination, even if the main verb otherwise requires an aspectless embedded complement sentence:

- (27) a. s-kan hin-c'ul ∅ w-il-a' naj
 E3-want E1-stomach A3 E1-see-fut cl/him
 'I would like to see him'

- b. *s-kan hin-c'ul kalom hin
E3-want E1-stomach rich A1
'I would like to be rich'
- c. s-kan hin-c'ul tato kalom hin
E3-want E3-stomach that rich A1
'I would like to be rich'
- (28) a. ch-in xiw w-ahtoj swi' te' Hah
asp-A1 afraid E2-climb its top cl/the house
'I am afraid to climb on top of the house'
- b. *ch-in xiw tx'oj y-e hin-c'ul
asp-A1 afraid bad E3-is E1-stomach
'I am afraid of getting sick'
- c. ch-in xiw tato tx'oj y-e hin-c'ul
asp-A1 afraid that bad E3-is E1-stomach
'I am afraid of getting sick'

Notice how the copula of manner -eyi does not allow for embedding of the clause either. See Chapter 1, Section 4. Copulas for a presentation of the semantics and syntax of this copula.

1.2.2. Future Tense Constraint

Some main verbs impose a tense constraint on the aspectless embedded transitive verbs. The suffix -n(i) does not appear on embedded verbs with a future suffix:

- (29) ch-∅-(y)-oche ix ∅ s-watx'e-' s-ba
asp-A3-E3-like cl/she A3 E3-make-fut E3-refl
'she likes to arrange herself'
- (30) xc-in to ∅ w-il-a' naj
asp-A1 go A3 E1-see-fut cl/him
'I went to see him'
- (31) tzet xc-ach bey ∅ haw-u-b
what asp-A2 go A3 E2-do-fut
'what did you go do?'

Verbs requiring future tense agreement exhibit the further

requirement that the subject of the embedded verb be coreferential with either the subject or the object of the main verb. Some verbs of desire and all verbs of movement have a subject-to-subject coreferential relationship, as seen in (29), (30), and (31) above. Causative verbs have an object-to-subject coreferential relationship as shown in (32), (33), and (34) below:⁶

- (32) x-∅-(y)-iptze ix xo' ∅ s-tx'ah-a'
asp-A3 E3-force cl/she cl/her A3 E3-wash-fut
xil kape s-ti' ha'
clothes E3-mouth water
'she forced her to wash the clothes by the river'
- (33) x-∅-s-chej naj ix ∅ s-lah-a'
asp-A3-E3-order cl/he cl/her A3 E3-finish-fut
s-munil
E3-work
'he ordered her to finish her work'
- (34) ch-otl s-chej naj ∅ co-tz'is-a'
asp-A1pl E3-order cl/he A3 E1pl-sweep-fut
kalem
garbage
'he orders us to sweep the floor'

If the verb requiring the future agreement is itself embedded under another upper verb, the lowest embedded verb is marked for both -n(i) suffixation and future agreement. The presence of the -n(i) suffix triggers a switch to the intransitive future suffix -oj, as shown in example (35):⁷

- (35) mach ch-∅-u s-to naj hach y-il-n-oj
not asp-A3-can E3-go cl/he A2 E3-see-suff-fut
'he cannot go to see you'

1.2.3. Verbs Taking CS#2

A variety of verbs take the aspectless embedded type of

complement sentence. It is the only type of complementation for aspectual verbs:

- (36) sab ichi ha munlayi
early start you work
'you started to work early'
- (37) xc'atz'la ha potx'ni ha tx'i'
almost did you kill your dog
'you almost killed your dog'

It is also the only type of complementation for adjectival predicates:⁸

- (38) c'ul cu tiyoxli tet anma
good we salute to people
'it is good to greet people'
- (39) xiciltaj cu potxni anma
forbidden we kill people
'it is forbidden to kill people'
- (40) ya'taj cu txumni tzet chal naj
difficult we understand what says cl/he
'it is difficult to understand what he says'⁹

As shown in examples (38) to (40), general statements are expressed in the first person plural. Aspectless embedded clauses with an adjectival higher predicate are often found to take a demonstrative, particularly when the embedded verb is not the impersonal first person plural:

- (41) caw ya' hin belwi ti'
very painful I walk this
'it is painful for me to walk'
'this walking is painful for me'
- (42) tx'oj ha bahwa ti'
bad you insult this
'it is bad for you to insult people'
'this insulting of yours is bad'

The presence of the demonstrative provides an argument for postulating an NP node dominating the S node of the embedded clause, since demonstratives are one of the noun determiners.

For both aspectual and adjectival predicates the gerund complement sentence is the only type of complementation possible. Main verbs of mentation, perception, emotion, and knowledge also take this aspectless complement sentence as well as the complement sentence with complementizer:

- (43) xwacoj yiñ hin cul hin toyi
I carry in my stomach I go
'I thought that I would go'
- (44) xtac hin c'ul ha paxtoj an
[meaning?] my stomach you return 1p
'I am sad that you are going back'
- (45) xwabe yok ix
I heard cries cl/she
'I heard her cry'
- (46) wohtaj hin watx'en kap camixe
I know I make cl/the shirt
'I know how to make shirts'

Three additional groups of verbs require future tense agreement (-(V)') in the aspectless embedded complement sentence. They are all the verbs of movement, some verbs of desire, and some causatives:

- (47) x'ec heb naj policia yala' tato
passed pl cl/the police he say that
ch'ah kalem yul caya
come up garbage in street
'the policemen went by to say that the garbage should be picked up from the street'

(48) skan hin c'ul hin take' hune' pay
wants my stomach I order one pie
'I would like to order a pie'¹⁰

(49) chin schej naj hin colo' ix
me orders cl/he I help cl/her
'he orders me to help her'

1.2.4. Boundaries of CS#2

The absence of an aspect marker on the embedded verb gives rise to a different type of boundary between a main verb and an embedded clause. The whole complex sentence constitutes a "flat structure" characterized by the impossibility of negating the complement sentence, the application of Noun Classifier Deletion across the boundary between main and embedded clause, and the placement of the sentence particle an over the boundary.

There is no negation of the complement sentence of gerund type. Verbal negation requires the presence of an aspect marker. Compare the possibility of negating the complement sentence introduced by a complementizer (50) with the impossibility of negating the aspectless embedded complement sentence (51):

(50) a. *wacoj yiH hin c'ul chubil chin toyi
I carry in my stomach that I go
'I am thinking of going'

b. *wacoj yiH hin c'ul chubil
I carry in my stomach that
mach chin toyi
NEG I go
'I am thinking of not going'

(51) a. *wacoj yiH hin c'ul hin toyi
I carry in my stomach I go
'I am thinking of going'

b. *wacoj yiH hin c'ul mach/mat hin toyi
I carry in my stomach NEG I go
'I am thinking of not going'

The negation word mat, used to negate stative verbs, is as ungrammatical as the finite verbal negation mach. If the main verb is one that may take either an aspectless embedded complement sentence or a complement sentence with complementizer, the latter is used when negation has to be expressed. Similarly, a complement sentence introduced by the complementizer tato is used when the complement sentence of an adjectival predicate is negated, although a complement sentence embedded under an adjectival predicate is always of the gerund type in affirmative statements:

(52) a. c'ul juc'i
good we drink
'it is good to drink'

b. *c'ul mach/mat juc'i
good NEG we drink
'it is good not to drink'

c. c'ul ta(to) mach choH uc'i
good that NEG we drink
'it is good that we do not drink'

Noun Classifier Deletion operates across the boundary of a gerund type complement sentence:

(53) a. *xil ix_i yapni smi' ix_i
saw cl/she arrives her mother cl
'she saw her mother arrive'

b. xil ix yapni smi' ----
saw cl/she arrives her mother N Cl Del
'she_i saw her_i mother arrive'

- (54) a. *yohtaj ix swatx'en ix kap camiʔe
 knows cl/she makes cl/she cl shirt
 'she knows how to make shirts'
- b. yohtaj ix swatx'en ---- kap camiʔe
 knows cl/she makes N Cl Del cl shirt
 'she knows how to make shirts'

If either the subject or the object of the main clause is co-referential with the subject of the embedded clause, the latter subject is first pronominalized and the pronoun classifier is then deleted. The result is that many gerund complement sentences lack surface structure subjects, the absence of which is not to be taken as the result of an Equi-NP Deletion rule. An Equi-NP Deletion rule deletes both the lexical noun and its corresponding case marking, while Noun Classifier Deletion, which is the rule operating in CS#2, does not delete the case marker on the embedded verb.

The first person sentence particle an similarly ignores the boundary of the gerund complement sentence:

- (55) xwil [yapni naj] an
 I saw arrives cl/he 1p
 'I saw him arrive'
- (56) yohtaj ix hin noh [swatx'en camiʔe] an
 knows cl my sibling makes shirt 1p
 'my sister knows how to make shirts'

1.3. CS#3: Infinitival Complement Sentence

1.3.1.

This type of complement sentence consists of an infinitive verb composed of a verb stem followed by the suffix -oj:

- (57) chin oc wayoj
 I enter to sleep
 'I am falling asleep'

- (58) ʔwoche caʔalwoj
 I like to dance
 'I like to dance'

The clause is a bare infinitive form without aspect or case marker. Infinitive clauses are derived by a rule of Equi-NP Deletion discussed in Chapter 11 Equi-NP Deletion.

The only other infinitive resulting from Equi-NP Deletion is found in the object incorporated construction illustrated in (59), (60), and (61):

- (59) chin to ilo' kiʔ
 I go to see fiesta
 'I am going to see the fiesta'
- (60) xto naj alcal male'
 went cl/the alcalde to measure
tx'otx' samarcos
 terrain San Marcos
 'the alcalde went to measure some terrain in San Marcos'
- (61) loko' ixim ʔwu txoʔbal
 to buy corn I do market
 'buying corn is what I am doing in the market'

In this object incorporated construction, the verb is transitive and takes a vowel stem final o/a and the irrealis suffix of the transitive -'. It is immediately followed by a generic noun with no noun classifier. There is no form of transitive infinitival complement sentence in the language.¹¹

1.3.2. Verbs Taking CS#3

The verbs which take the infinitival complement sentence are the same verbs that require a future agreement in transitive aspectless embedded clauses, i.e., verbs of desire, verbs of movements, and causative verbs.¹²

1.3.3. Boundaries of CS#3

The first person sentence particle an is placed after the infinitive, marking the boundary between main clause and infinitival clause as "transparent":

- (62) chin to [cañalwoj] an
 I go to dance 1p
 'I am going to dance'

1.4. Summary

There are three types of complement sentences in Jacaltec. CS#1 is characterized by the presence of a complementizer and introduces a full finite sentence, as in the example:

- (63) x-∅-(y)-al naj chubil x-∅-ul ix
 asp-A3-E3-say cl/he that asp-A3-came cl/she
 'he said that she came'

CS#2 is an aspectless embedded clause characterized by a nominative/accusative type of case marking which assigns an ergative to all subjects, and by the suffixation of either the intransitive suffix -n(i) or the future irrealis suffix -V'/-b on transitive verbs:

- (64) x-∅-(y)-il naj hin ha-mak-ni
 asp-A3-E3-see cl/he A1 E2-hit-suff
 'he saw you hit me'

- (65) x-∅-(y)-il naj ha-munlayi
 asp-A3-E3-see cl/he E2-work
 'he saw you work'

- (66) ch-in to ∅ w-il-a' naj
 asp-A1 go A3 E1-see-fut cl/him
 'I am going to see him'

CS#3 is an infinitival complement sentence composed of a simple infinitive. It is always an intransitive type of construction and corresponds to the transitive with future suffix of CS#2:

- (67) x-∅-w-oche cañalw-oj
 asp-A3-E1-like to dance-fut
 'I like to dance'

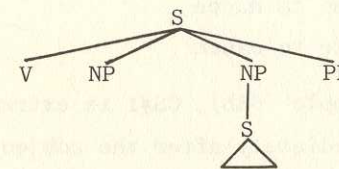
2. FUNCTIONS OF COMPLEMENT SENTENCES

2.0.

Complement sentences can fulfill different functions: they can be sentential objects (2.1.), sentential subjects (2.2.), or sentence complements (2.3.).

2.1. Sentential Objects

The tree structure of a complex sentence with a sentential object is roughly:



All three types of complement sentence may function as the object of a main transitive verb. In examples (68), (69), and (70) the main verbs take an object NP in the (a) sentences and a sentential object in the (b) sentences--

(68) CS#1:

- a. xal naj skumal ix tet anma
 said cl/he her criticism cl to people
 'he said criticisms of her to people'

- b. xal naj tet anma chubil xil
 said cl/he to people that saw

naj ix
 cl/he cl/her

'he said to people that he saw her'

(69) CS#2:

a. xil naj ix
saw cl/he cl/her
'he saw her'

b. xil naj yayc'ay ix
saw cl/he falls down cl/she
'he saw her fall down'

(70) CS#3:

a. xwoche naj
I like cl/him
'I like him'

b. xwoche cañalwoj
I like to dance
'I like to dance'

As shown in the example (68b), CS#1 is extraposed from the object position immediately after the subject to the right of the dative prepositional phrase. CS#1 undergoes Extraposition to the right of all prepositional phrases and adverbs alike:

(71) xal naj tet anma yul parce ewi
said cl/he to people in park yesterday
chubil chim huluij naj presidente coñob
that may come cl/the president village
'the alcalde said to people yesterday in the
park that the president may come to the village'

Both complement sentences CS#1 and CS#2 may be derived
subjects of a main passive verb--¹³

(72) CS#1:

xallaxi chubil xil naj ix
was said that saw cl/he cl/her
'it was said that he saw her'

(73) CS#2:

x'illax yayc'ay ix
was seen fall down cl/she

lit: it was seen that she fell down
'she was seen falling down'

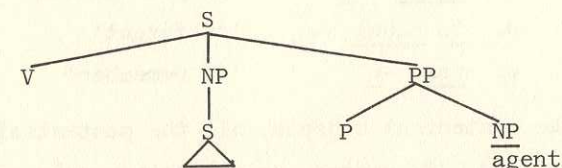
(74) CS#2:

x'abelax ha tzoteli
was heard you talk

'you were heard talking'

2.2. Sentential Subjects

Two types of predicates take sentential subject. They are the adjectival predicates and all the intransitive verbal predicates of idiomatic expressions composed of a verb and a prepositional phrase:



In such idiomatic constructions the agent of the sentence is the person expressed in the prepositional phrase.

Depending on the type of prepositional phrase they take, these idiomatic expressions can be divided into two groups. In the first group the agent is the possessor of the object of the preposition, and the verb is a verb of movement.

(75) a. tit yit -c'ul
come in stomach

'to remember'

b. ec'le yit -c'ul
pass by in stomach

'to cross one's mind'

- c. oc yiH -c'ul
 enter in stomach
 'to desire'

These idiomatic expressions are further discussed in Section 3 below.

In the second group the agent is the object of the preposition -u, previously discussed as the preposition of direct and indirect agent in Chapter 2, Section 3. Voices: Active and Passive. Of the five expressions listed below, three are recognizable as forms of the passive in -cha; one contains a movement verb; and the last one is a stative verb:

- (76) a. abcha -u 'to come to hear, to learn'¹⁴
 b. techa -u 'to bear'
 c. ijcha -u 'to put up with'¹⁵
 d. to nahul -u 'to forget'
 e. nan -u 'to remember'

Like sentential objects, all the sentential subjects of type CS#1 and CS#2 undergo an obligatory rule of Extraposition which places them after the prepositional phrase. This rule accounts for the different surface structures [V NP PP] and [V PP CS], corresponding to the (a) and (c) sentences of examples (77), (78), and (79):¹⁶

- (77) a. xtit naj yiH hin c'ul
 came cl/he in my stomach
 'I remembered him'
- b. *xtit wuc'ni aH yiH hin c'ul
 came I drink medicine in my stomach
 'I remembered to take my medicine'
- (78) a. xtecha munil wu
 bears work by me
 'I bear the work'

- b. *mach xtecha hach wilni wu
 NEG bears you I see by me
 'I cannot stand to see you'
- c. mach xtecha wu hach wilni
 NEG bear by me you I see
 'I cannot stand to see you'
- (79) a. x'ec'le ix yiH hin c'ul
 she crossed cl/she in my stomach
 'she crossed my mind'
- b. *x'ec'le chubil kiH hecal
 crossed that fiesta tomorrow
 yiH hin c'ul
 in my stomach
 'it crossed my mind that it is fiesta tomorrow'
- c. x'ec'le yiH hin c'ul chubil
 crossed in my stomach that
 kiH hecal
 fiesta tomorrow
 'it crossed my mind that it is fiesta tomorrow'

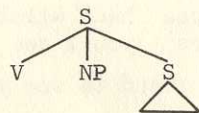
The infinitival CS#3 remains between the verb and the prepositional phrase, as subject NPs do:

- (80) a. mach xtecha munil wu
 NEG bears work by me
 'I cannot bear the work'
- b. mach xtecha munlahoj wu
 NEG bears to work by me
 'I cannot stand to work'

2.3. Sentence Complements

Sentence complements are those complement sentences which fulfill neither the subject nor the object function in the complex sentences.¹⁷

There are sentence complements of intransitive verbs:



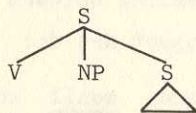
This construction is found with verbs of movement and verbs of emotion:

- (81) chach xiw hawahtoj swi' te' nah
 you are afraid you climb its top cl/the house
 'you are afraid to climb on the roof'

- (82) xtz'a hin c'ul sto naj
 burn my stomach goes cl/he
 'I am sad that he is going'

- (83) choH to cu tx'aha' xil kape sti'
 we go we wash clothes its mouth
 ha' niman
 water big
 'we go to wash the clothes by the river'

Sentence complements are also found in causative constructions with transitive main verbs:



Examples of this construction are:

- (84) xcach wiptze ha maka' ix
 you I forced you hit cl/her
 'I forced you to hit her'
- (85) steye naj ix tzoteloj
 obliged cl/he cl/her to talk
 'he obliged her to talk'

The presence in the main clause of an animate object which is coreferential with the subject of the complement sentence indicates that the complement sentence is not the object of

the causative verb but rather a sentence complement.

2.4. Conclusions

Complement sentences in Jacalteco may be sentential subjects, sentential objects, or sentence complements. Sentential subjects and sentential objects of the CS#1 and CS#2 type undergo a rule of Extraposition which places them in sentence final position, after all prepositional phrases and adverbs.

3. IDIOMATIC EXPRESSIONS AND COMPLEMENT SENTENCES

3.0.

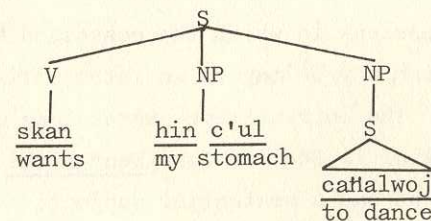
The idiomatic expressions considered in this section are composed of a verb and a body part. The possessor NP of the body part functions as the agent of the sentence. The discussion focuses on the particular status of the possessor NP with respect to person agreement, Equi-NP relation with lower subjects, and the focus operation.¹⁸

3.1. Types of Idiomatic Expressions

The possessed NP may be in any of the three nominal functions—subject, object, or object of a preposition.

The expressions in which the possessed NP is the subject of a transitive verb take a sentential object. The construction may be roughly represented as:

(86) a.



- b. skan hin c'ul cattalwoj
 wants, my stomach to dance
 'I would like to dance'

Another idiomatic expression of this construction is:

- (87) chal wanma ta mach chuluĵ
 says my heart that not will come
 naj tinaĥ
 cl/he today

'I have the feeling that he will not come today'

A more complete list of these idiomatic expressions appears in Appendix C.

The expressions in which the possessed NP is the subject of an intransitive take a sentence complement:

- (88) a.
-

- b. xtz'a hin c'ul sto naj
 burns my stomach go cl/he
 'I am sad that he is going'

An additional example is:

- (89) xcha swi' naj sway
 allows his head cl he sleep
 sunilbal tz'ayic
 all day
 'he would not mind sleeping all day long'

The expressions in which the possessed NP is the object of a preposition may belong to an intransitive or a transitive construction. The intransitive expressions are of the type presented earlier in Section 2.2. Sentential Subjects, with a verb of movement and a sentential subject:

- (90) a.
-

- b. xtit yif hin c'ul wuc'ni aĥ
 came in my stomach I drink medicine
 'I remembered to take my medicine'

Examples (91) and (92) represent two other idiomatic expressions identified as belonging to this construction:

- (91) x'ec'le yif hin c'ul chubil
 crossed in my stomach that
 kiĥ hecal
 fiesta tomorrow
 'it crossed my mind that tomorrow is fiesta'
- (92) x'occaĥ ha lokni ha cheh
 entered you buy your horse
yif ha c'ul
 in your stomach
 'you decided to buy yourself a horse'

In expressions (90) and (91) the extraposition of the complement is obligatory; in (92) it is optional.

Transitive expressions take a sentential object. Their structure is roughly:

- (93) a.
-

- b. cha' naj tet yanma yilni sine
 gives cl/he to his heart he see movie
 'he delights in seeing movies'

Two other expressions of this type are:

- (94) xwacoj yif hin c'ul hin to
 I carry in my stomach I go
 munlahoj sab
 to work early
 'I decided to go to work early'

- (95) xata'we yul ha ti'
 you answered in your mouth
 ha watx'en hun tu'
 you make one that
 'you committed yourself to make that'

3.2. The Possessor NP of the Idiomatic Expression

3.2.0.

The interesting fact about the possessive construction of the idiomatic expression is that the possessed noun agrees with the main verb as a third person constituent while the possessor NP alone controls the Equi-NP Deletion in the embedded clause or undergoes focus movement.

3.2.1. Person Agreement

The whole possessed noun inflects with a third person marker on the verb:

- (96) a. ~~x~~- \emptyset -tz'a hin-c'ul s-to naj
 asp-A3-burn E1-stomach E3-go cl/he
 'I am sad that he is going'
- b. *~~x~~c-in tz'a hin-c'ul s-to naj
 asp-A1 burn E1-stomach E3-go cl/he
 'I am sad that he is going'

- (97) a. ch- \emptyset -(y)-al w-anma y-u hun-tu'
 asp-A3-E3-say E1-heart E3-happen one-that
 'I have a feeling that that will happen'
- b. *~~x~~- \emptyset -w-al w-anma y-u hun-tu'
 asp-A3-E1-say E1-heart E3-happen one-that
 'I have a feeling that that will happen'

3.2.2. Equi-NP Deletion

As seen in the previous section, an infinitival clause (CS#3) is derived by the application of the rule of Equi-NP Deletion which deletes the subject of the embedded clause under identity with the subject or the object of the main verb. However in constructions with idiomatic expressions, the identity under which Equi-NP Deletion operates holds between the possessor of the subject or the object upstairs and the subject downstairs. In example (98) it is the possessor NP of the main subject which by itself triggers the deletion of the embedded subject:

- (98) a.
-
- b. s-je hin-c'ul wa'oj
 E3-accept E1-stomach to eat
 'I want to eat'

3.2.3. Focus

The fact that the agent of the sentence is the possessor NP is further revealed by the focus construction. The whole possessive construction cannot be moved to focus position

at the head of the sentence, as the ungrammaticality of examples *(99) and *(100) shows:

- (99) *yiH hin c'ul xtit yalni naj hun tu'
 in my stomach came say cl/he one that
 'I remembered him saying that'
- (100) *wanma ch'alni wi'ni premio
 my heart says I win prize
 'I have the premonition that I will win the prize'

Compare the ungrammatical sentences *(99) and *(100) with sentences (101) and (102) in which a non-idiomatic possessive construction is placed in focus:

- (101) yiH hin mam xmunla naj
 in my father works cl/he
 'he works with my father'
- (102) wuxtaj ch'alni chubil chuluj naj
 my brother says that will come cl/he
 'my brother says that he will come'

With idiomatic possessive constructions the possessor NP alone moves to the head of the sentence in focus position:

- (103) hayin xtit yiH hin c'ul yalni
 I came in my stomach says
 naj hun tu'
 cl/he one that
 'I remembered him saying that'
- (104) hayin chal wanma wi'ni premio
 I says my heart I win prize
 'I have the premonition that I will win the prize'

In examples (103) and (104) above the possessor NP is an independent pronoun, but it may also be a possessed noun itself:

- (105) a. scha swi' ha mam u'cu
 allows his head your father to drink
 'your father does not mind drinking'
- b. *swi' ha mam xchani uc'uj
 his head your father allows to drink
 'your father does not mind drinking'
- c. ha mam scha swi' uc'uj
 your father allows his head to drink
 'your father does not mind drinking'

3.3. Conclusions

This section has considered idiomatic expressions composed of a verb and a possessed body part in order to point out the special status of the possessor NP: this NP behaves like the agent of the sentence, with respect to the rules of Equi-NP Deletion and Focus.

4. INVERSION

4.0.

The phenomenon of Inversion refers to a construction in which the main verb appears in an embedded form after its complement sentence, which has become the surface structure main clause. An example is given below:

- (106) a. xal naj jet an tato x'apni
 said cl/he to us 1p that arrived
 ya' cumi'
 cl/the lady
 'he told us that the lady had arrived'
- b. x'apni ya' cumi yalni naj jet an
 arrived cl/the lady says cl/he to us 1p
 'the lady arrived, he told us'

4.1. Conditions on Verbs

Under specific conditions three verbs may undergo Inversion: hala 'to say', ay -ala' 'to desire', and ham -alni 'to think'. The first verb--hala 'to say'--may be extraposed to the right only if its subject is a third person and if there is no relation of identity between main and embedded subjects:

- (107) a. xawal tato xto naj
 you said that went cl/he
 'you said that he went'
- b. *xto naj hawalni
 went cl/he you say
 'he went, you said'
- (108) a. xal naj_i tato xto naj_i
 said cl/he that went cl/he
 'he_i said that he_i went'
- b. *xto naj yalni (naj_i)
 went cl/he say cl/he
 (he_i went, he_i said)
- (109) a. xal naj_i tato xto naj_i
 said cl/he that went cl/he
 'he_i said that he_j went'
- b. xto naj_i yalni naj_j
 went cl/he say cl/he
 'he_i went, he_j said'

Sentence (109) is the only possible sentence with Inversion because the two noun classifiers are non-coreferential.

The second verb, ay -ala', is a verb of desire meaning 'to want'. It is a verbal expression compounded with the verb hala 'to say' and the copula of existence ay.¹⁹ In the Inversion process the copula ay is lost and the meaning of the verb shifts to express a stronger desire:

- (110) a. ay wala' chin toyi
 is I say I go
 'I would like to go'
- b. chin to walni
 I go I say
 'I want to go'

For this second verb, ay -ala' 'to desire', Inversion operates under a condition of coreferentiality between the subjects which may be in any of the three persons:

- (111) a. ay yala' naj chach to hecal
 is says cl/he you go tomorrow
 'he would like for you to go tomorrow'
- b. *chach to hecal yalni naj
 you go tomorrow say cl/he
 'he wants you to go'

In the third person, the identity of the subjects results in the deletion of the second classifier by the application of the rule of Noun Classifier Deletion:

- (112) a. ay yala' naj *xto naj
 is says cl/he goes cl/he
 'he would like to go'
- b. *xto naj_i yalni naj_i
 goes cl/he say cl/he
 'he wants to go'
- c. *xto naj yalni ----
 goes cl/he say N Cl Del
 'he wants to go'

The third verb to undergo Inversion--ham -alni 'to think'--is also a compound of hala 'to say'. ham is analyzable as the particle ha' of clefted constructions and the dubitative clitic particle mi. This verb does not require coreferentiality of the subjects and occurs in all three persons in

Inversion:

- (113) a. ham walni chubil xto naj
 maybe I say that went cl/he
 'I think that he went'
- b. xmam to naj walni
 maybe go cl/he I say
 'he went, I think'

Inversion operates under different conditions for the three verbs:

- for hala 'to say' the subject must be in the third person and not coreferential;
- for ay -ala' 'to desire' the subject may be in any of the three persons but it must be coreferential;
- for ham -alni the subject may be in any of the three persons and not be coreferential.

4.2. Conditions on Inversion

In the following paragraphs the phenomenon of Inversion will be characterized with respect to the rules of Negation, Passive, and Question, and the types of clauses involved.

4.2.1. Passive

Inversion may occur with the passive form of the verb. Since the passive verb form is intransitive, there is no suffixation of -n(i) on the verb after Inversion:

- (114) a. xalot/xallaxi tato toxa xcach paxojtoj
 was said that already you came back
 'they said that you had already come back'
- b. toxa xcach paxojtoj yalot/yallaxi
 already you came back was said
 'you had already come back, they said'

4.2.2. Negation

The verbs may not be extraposed when negated, since they

become aspectless embedded verbs in the Inversion process and since negation is not grammatical in aspectless clauses, as noted above in Section 1.2.4. Boundaries of CS#2:

- (115) a. mach xal naj chubil wet ye
 not said cl/he that to me is
 te' Hah
 cl/the house
 'he did not say that the house was mine'
- b. *wet ye te' Hah mat yalnoj naj
 to me is cl/the house NEG say cl/he
 (the house is mine he did not say)

Sentence *(115b) would also be ungrammatical with the verbal negation mach or without the irrealis suffix -oj:

The verb ay -ala' 'to want' is never negated, even in its position of main verb:

- (116) *mach wala' chin tz'othi an
 is not I say I sit 1p
 'I don't want to sit down'

4.2.3. Question

Inversion is preferred when an NP is questioned out of the complement sentence. This results in having the question word immediately preceding the clause out of which it has been moved.

- (117) a. ?mac xal naj chubil xmakni xo'
 who said cl/he that hit cl/her
 'who did he say hit her?'
- b. mac xmakni xo' yalni naj
 who hit cl/her say cl/he
 'who did he say hit her?'
- (118) a. ?tzet ay hawala' chalo'
 what is you say you eat
 'what do you want to eat?'

- b. tzet chalo' hawalni
 what you eat you say
 'what do you want to eat?'

Preference for the Inversion construction of sentences (117) and (118) is probably motivated by perceptual strategy since it is easier to decode a sentence in which no clause intervenes between the question word and the clause in which it originated.

4.2.4. Complement Sentences

Inversion is possible only with complement sentences and not with subordinate clauses:

- (119) a. xal naj wet an bakin/mac boj/tzet
 said cl/he to me 1p when/whom with/what

yuxin chuluj ix
 for will come cl/she

'he told me when/with whom/for what she will be coming'

- b. *bakin/mac boj/tzet yuxin chuluj
 when/who with/what for will come

ix yalni naj wet an
 cl/she say cl/he to me 1p

'he told me when/with whom/for what she will be coming'

4.2.5. Sequential Coordination

When there are two complement sentences in sequential coordination with cat, Inversion places the verb after either the first or the second clause:

- (120) a. ay wala' chin to hecal cat
 is I say I go tomorrow and then

hin can betu'
 I stay there

'I would like to go tomorrow and stay there'

- b. chin to hecal walni cat
 I go tomorrow I say and then

hin can betu'
 I stay there

'I want to go tomorrow and stay there'

- c. chin to hecal cat hin can
 I go tomorrow and then I stay

betu' walni
 there I say

'I want to go tomorrow and stay there'

4.2.6. Double Embedding

Inversion also becomes obligatory when the main verb is itself embedded under a verb requiring an aspectless embedded complement:

- (121) a. *x'ichic'oj heb ya' yalni swa'
 started pl cl/they they say they eat

'they began to want to eat'

- b. x'ichic'oj heb ya' swa' yalni
 started pl cl/they they eat they say

'they began to want to eat'

4.3. Summary²⁰

In this section three verbs of Jacalteco were shown to undergo Inversion, a process by which a main verb comes to follow its complement sentence and takes on an aspectless embedded form. Although the verbs are homophonous in their inverted form, complementary distribution of the conditions under which Inversion may occur allows the correct interpretation of the sentences.

5. CONCLUSIONS

This survey of the process of complementation in Jacalteco has established that there are three types of surface structure

complement sentences. They can function as a sentential subject, object or complement of a main verb.

CS#1 is a complement sentence with a complementizer and a finite verb. It behaves like an independent sentence with respect to case marking and negation.

CS#2 is an aspectless embedded clause inflected for subject and object according to a nominative/accusative type of case marking. While most transitive verbs take the suffix -n(i), one group of verbs requires a future form of the embedded transitive verbs without the suffix -n(i).

CS#3 is an infinitival construction limited to intransitive verbs. Furthermore only verbs which are the intransitive counterparts of the transitive future forms of CS#2 appear in the infinitival construction.

A section was devoted to idiomatic expressions functioning as main verbs of aspectless embedded complement sentences to show how the possessor NP of those expressions behaves as the agent of the sentence with respect to the rules of Equi-NP Deletion and Focus. A phenomenon of Inversion is which a main verb appears embedded after its sentential object was presented in the last section.

This central chapter on complementation is closely related to several other chapters of this book:

- A) for a discussion of the two types of case marking rules--ergative type and nominative/accusative type--refer back to Chapter 3 Case Marking;
- B) for a discussion of the two types of complex sentences--"flat" structures characterized by "transparent" boundaries and "disjunctive" structures characterized by "opaque" boundaries--see Chapter 5 Noun Classifier Deletion and Chapter 9 A Boundary Marker;

- C) for a discussion of specific constructions involving CS#2 see Chapter 10 A Promotion Rule, Chapter 12 Manner Adverbial Sentences and Chapter 13 Causative Constructions;
- D) for a more complete discussion of CS#3 see Chapter 11 Equi-NP Deletion.

NOTES

1. The word chubil is not used in other parts of the Jacaltec linguistic area except in its meaning of the indefinite question word 'how, how much' as in:
 - (a) chubil yit te' ot
how much in cl/the avocado
'how much for the avocados?'
 - (b) chubil ye yit cotob
how is in town
'how are things in town?'
2. The choice between chubil and tato depends on the attitude or belief of the speaker. When thinking about this, one has to keep in mind that Jacaltec is an unwritten language and that information is passed around through oral channels as public announcements, hearsay or gossip. In reported speech the credibility of the source of information in the opinion of the speaker reporting statements of others is of utmost importance. The use of chubil denotes a high degree of credibility or certainty, and the use of tato introduces a notion of disbelief or reservation about a hearsay. Compare the use of the two complementizers in the pair of sentences below:

- (a) xal naj tato chuluĵ
said cl/he that will come
naj presidente
cl/the president
'he said that the president is going to come'
- (b) xal naj alcal chubil chuluĵ
said cl/the alcalde that will come
naj presidente
cl/the president
'the alcalde said that the president is going to come'

In sentence (a) the source of information--an anonymous naj 'he'--is taken to be an unreliable source of information. Why should 'he' know better than others? In sentence (b) the source of information is felt to be a reliable one, since the alcalde is a man of authority and he should be the person most knowledgeable about such matters as official visits.

Two additional examples of the use of the complementizers follow:

- (c) spujbacoĵ ya' alcal xol anma
made public cl/the alcalde among people
yiĥ bando chubil chuluĵ naj
by announcement that will come cl/the
ilom-kalem yiĥ hunxa semana
watcher-garbage in another week
'the alcalde made it known by announcement to the people that the public health officer will come next week'

- (d) spujbacoĵ naj manel tet heb naj
made public cl Manuel to pl cl/the
sajhom ay beti' tato chacoĵ ix maria
players is here that put on cl Maria
hune' comedor yiĥ kiĥ candelaria
a restaurant in fiesta Candelaria
'Manuel announced to the players from here that Maria was going to set up a restaurant at the fiesta Candelaria'

In example (c) the alcalde is recognized as a person of trust and knowledge and the primary source of information, and therefore a person to be believed. Sentence (d) on the other hand offers information which is not to be taken for certain. This sentence refers to a real-life situation in which Manuel, in fact, is the husband of Maria. While she is known in town for her independence, Manuel tends to be known as a talker. Who really knows whether Maria will set up a stand at the fiesta?

The use of a different complementizer also enhances the contrast between the affirmative tone of sentence (e) below and the somewhat reserved statement of (f):

- (e) xinta'wecoĵ wibaĥ chubil hayin ay
I recognized on me that I is
hin mul yiĥ hun tu'
my fault in one that
'I recognized that I was the one to blame for that'
- (f) sta'wecoĵ naj yibaĥ tato ha' naj
recognizes cl/he on him that cleft cl/he
yet ay ya'ni ch'en melyu
is necessary he gives cl/the money
'he does recognize that he has to pay the money'
(leaving open the possibility that he may not pay)

The nuances in the use of the two complementizers are subtle enough that it is difficult to contrast them through direct elicitation. But it is certain that the complementizers are not neutrally interchangeable in a good number of situations and that they carry some of the elocutionary force of the language.

3. to may be used alone as a conjunction:

- (a) mataj naj xinmaka to hawuɣtaj
not is cl/he I hit conj your brother
'it is not him that I hit but (rather) your brother'

It also may be combined with other conjunctions:

- (b) ya' yoj naj yuxin-to
painful his foot cl for then-conj
ch'ok naj
cries cl/he
'his foot hurts, that's why he is crying'

- (c) c'ajam-to caw chew cat
in spite-conj very cold and then
hawaɣnɪpaxoj
you bathe also
'in spite of the cold you still bathe'

4. There is one instance of noun complementation with CS#1.

It is with the word kumal 'news, criticism':

- (a) kumal xitij naj wet chubil
news brought cl/he to me that
ch'apnoj hin mi'
will arrive my mother
'he brought me the news that my mother would arrive'

5. Refer again to Note 2 for a discussion of the semantics of the complementizers.

6. For some speakers iptze 'to force' and chej 'to order' do not exhibit the tense constraint and transitive verbs embedded under them take the suffix -n(i) instead of the future suffix:

- (a) xc-ach w-iptze hin haw-echma-ni
asp-A2 E1-force A1 E2-wait-suff
'I forced you to wait for me'
- (b) ch-in s-chej naj hach hin-col-ni
asp-A1 E3-order cl/he A2 E1-help-suff
'he orders me to help you'

Even if the transitive embedded verbs do not take the future suffix, the intransitive ones appear in infinitival form. There is also a concessive verb with no coreferentiality of NPs but a future tense constraint:

- (c) x-∅-in-cha ∅ s-watx'-e' ix ita
asp-A3-E1-allow A3 E3-make-fut cl/she food
'I let her prepare the food'
- (d) x-∅-s-cha ix ∅ y-uc'-u'
asp-A3 E3-allow cl/she A3 E3-drink-fut
ni'an unin sunil lech
little child all milk
'she let the child drink all the milk'

7. The -n(i) suffix may also appear as a mark of sequential coordination in the context of the completive aspect. In the presence of the coordinating -n(i) suffix, the future marker becomes that of intransitive verbs, -oj. Notice the future forms sub in example (a) and sunuj in example (b):

- (a) x'oc' heb ix sub munlabal
enter pl cl/they wash dishes
'they(women) started doing the dishes'

- (b) yet xul heb ix x'oc' heb
 when arrived pl cl/they enter pl
 ix sunuj munlabal
 cl/they wash dishes
 'when they(women) arrived, they started doing
 the dishes'

8. All of these adjectives may be used (or have to be used) with the copula -e(yi) when the subject is a noun:

- (a) yilal y-e munil ti'
 urgent E3-is work this
 'this job is urgent'
- (b) xiciltaj y-e ix
 forbidden E3-is cl/she
 'she is "untouchable"' (used to refer to a
 pregnant woman)

See Chapter 1, Section 4. Copula for a classification of adjectives. The copula disappears when the subject is a sentential NP:

- (c) tzalalal j-eyi
 happy E1pl-are
 'we are happy'
- (d) *tzalalal y-eyi/j-eyi Ø cu-yamba-n
 happy E3-is/E1pl-are A3 E1pl-gather-suff
 cu-ba
 E1pl-refl
 'it is fun to get together'
- (e) tzalalal Ø cu-yamba-n cu-ba
 happy A3 E1pl-gather-suff E1pl-refl
 'it is fun to get together'

The ungrammaticality of *(d) shows that the copula may not co-occur with the sentential subject, whether the case marker is a third person inflecting for the whole

sentential subject or whether it is a first person plural inflecting for the subject of the embedded clause.

9. There is no equivalent of the English Tough Movement in Jacalteco adjectival predicates. This means that there is no equivalent for sentences (a') and (b'):

(a) it is hard to convince Mary

(a') Mary is hard to convince

(b) it is easy to please John

(b') John is easy to please

10. This is probably the most recent borrowing in the language. The word was borrowed from the kitchens of the American mission. Nowadays one may order a pay 'pie' from one of the ex-cooks of the mission!
11. The only transitive infinitive found in the language is not the result of the application of Equi-NP Deletion. It is the bare infinitive of collapsed causative constructions which has lost any grammatical relation to its subject and its object. See Chapter 13 Causative Constructions for a discussion of the collapsing operation.
12. Some verbs of desire and some causatives have intransitive infinitival clauses but do not take the future suffix in the transitive aspectless embedded clauses. Refer again to Note 6 for examples.
13. This is an area of variation in the language. For some speakers, a CS#2 cannot become the subject of a passive verb.

9. A Boundary Marker

an is a particle which appears in clause or sentence final position, marking the presence of a first person in a sentence. The use and semantic function of this particle are discussed in Section 1. In Section 2 two types of complex structures are distinguished on the basis of the position of the an particle. The late placement of an is discussed in Section 3, and remarks on the different types of complex sentences and boundaries conclude the chapter in Section 4.

1. USAGE AND FUNCTION

1.1. Usage

The particle an appears in sentence final position. It is triggered by the presence of a first person in the sentence. This first person may be in any function--subject, object, object of preposition, or possessor--and therefore either ergative or absolutive. All of these possibilities are illustrated in the following examples:

- | | | |
|-----|---|--------------------------|
| (1) | ch- <u>in</u> to <u>an</u>
asp-A1 go 1p | subject |
| | 'I go' | |
| (2) | ch- <u>in</u> ha-mak <u>an</u>
asp-A1 E2-hit 1p | object |
| | 'you hit me' | |
| (3) | matzet x- <u>Ø</u> -(y)-al naj
nothing asp-A3-E3-say cl/he | |
| | <u>w</u> -et <u>an</u>
<u>E</u> 1-to 1p | object of
preposition |
| | 'he said nothing to me' | |

- | | | |
|-----|---|-----------|
| (4) | x- <u>Ø</u> -cam <u>hin</u> -cheh <u>an</u>
asp-A3-die E1-horse 1p | possessor |
| | 'my horse died' | |

There can be only one first person particle in a simplex sentence:

- | | | |
|-----|---|--|
| (5) | x- <u>Ø</u> -w-a' <u>hin</u> -melyu t-(y)-et
asp-A3-E1-give E1-money aug ^t -E3-to | |
| | <u>hin</u> -mam <u>an</u> *(<u>an</u>) *(<u>an</u>)
E1-father 1p (1p) (1p) | |
| | 'I gave my money to my father' | |

The use of this particle is an area of Jacalteco grammar which is under pressure for change.¹ The particle is more consistently used by the older and/or monolingual speakers than by the younger and/or bilingual speakers.

1.2. Function

The function of an is semantic and not syntactic. With first person plural an carries the meaning of exclusiveness, and its absence is interpreted as indicating inclusive meaning:

- | | | |
|--------|---|------------------------------|
| (6) a. | ch- <u>Ø</u> to <u>an</u>
asp-A1pl go 1p | 'we go' (exclusive: not you) |
| b, | cho ^Ø to-yi
asp-A1pl go-stem aug ^t | 'we go' (inclusive: you too) |

With first person singular the usage is variable and indicates different degrees of emphasis. Some speakers give a generalized emphasis to the first person by consistently using the particle; other speakers use the particle selectively to give particular emphasis to the first person in specific environments.²

an becomes mandatory if the sentence contains both a first and a second person, even for speakers with a restricted

use of the particle. No particular meaning is attached to the particle in this case:

(7) xc-in haw-il tx'oHbal an
asp-A1 E2-see market 1p

'you saw me in the market'

(8) xc-in to haw-atut an
asp-A1 go E2-home 1p

'I went to your house'

2. BOUNDARY MARKER

2.0.

Even though an has a primary semantic function, its sentence position is an indicator of syntactic structure. In simplex sentences an always occurs in sentence final position, as was illustrated in the previous section. In complex sentences it may occur either in sentence final position or in clause final position, and on the basis of its position two categories of complex sentences may be distinguished. One, referred to as "flat structure," is defined by the fact that the particle an does not mark its internal clause boundaries--i.e., it always appears in sentence final position. The other category, referred to as "disjunctive structure," is defined by the fact that an never crosses over any of its internal clause boundaries.

2.1. Flat Structures

The flat structures are complex sentences containing relative clauses, clefted sentences, aspectless embedded clauses (CS#2), and infinitival complement sentences (CS#3). The sentence final position of an in all of these flat structures is illustrated below--

A. relative clauses:

(9) xitoj ya' comam xmunla yitH hin mam
sent cl/the older man works for my father

no' chech [i'o' ixim ixim
cl/the horse to carry cl/the corn

tinaH] an
today 1p

'the old man who works for my father sent the horse to carry the corn today'

(10) wohtaj naj [xul ewi] an
I know cl/him came yesterday 1p

'I know the man who came yesterday'

B. clefted sentences:

(11) watut [chuhuj kiH hecal] an
my home will happen fiesta tomorrow 1p

'it is at my house that there will be fiesta tomorrow'

(12) wuXtaj [xlokni hune' no' cheh c'ej'iH
my brother bought a cl horse black

tu'] an
that 1p

'it is my brother who bought that black horse'

C. aspectless embedded clauses (CS#2):

(13) xil wanab [hawec' yul caya] an
saw my sister you go by in street 1p

'my sister saw you go by in the street'

D. infinitival complement sentences (CS#3):

(14) xwoche [caHlalwoj] an
I-like to dance 1p

'I like to dance'

In all flat structures the particle an is insensitive to both the opening and closing boundaries of the embedded clauses.

2.2. Disjunctive Structures

The disjunctive structures are topicalized sentences, complex sentences containing subordinate adverbial clauses introduced by conjunctions, complement sentences with complementizers (CS#1), the different types of coordinated sentences, and juxtaposed sentences expressing simultaneous actions. Examples of the clause final position of an in all of these types of complex sentences are provided below--

A. topicalized sentences:³

- (15) watut an [(hat) chuhuj
my home 1p (there) will happen

kiH hecal
fiesta tomorrow

'in my house (that is where) there will be fiesta tomorrow'

- (16) wuXtaj an [slok ho' no' ch eh
my brother 1p bought cl/he cl horse

c'ej'iH tu']
black that

'my brother, he bought that black horse'

B. subordinate adverbial clauses:

- (17) laH an hintx'ahni xil kape an [yet xcach huli
I was washing clothes 1p when you came

'I was washing clothes when you came'

- (18) chin tzotel tet ix an [yuHe sta'wi
I talk to cl/her 1p so that answers

ix wet an]
cl/she to me 1p

'I will talk to her so that she will answer me'

In case the subordinate clause precedes the main clause, the particle an will be the closing constituent of the subordinate clause:

- (19) [c'ajam hayin xintohla ita an
in spite of I I paid food 1p

ha' naj xlonipaxtoj
cleft cl/he ate away

'in spite of the fact that I am the one who paid for the food, it is he who ate it all'

- (20) [masanto hayin xcin awi an] xul
not until I I screamed 1p came

naj hose
cl/he Joseph

'it was not until I screamed that Joseph came'

C. complement sentences with complementizer (CS#1):

- (21) xwal tet naj an [chubil ch'ahtoj
I said to cl/him 1p that climb up

naj swi' te' hah]
cl/he its top cl/the house

'I told him to climb on the roof'

D. coordinated sentences:

- (22) chin to hecal an [cat ha can beti']
I go tomorrow 1p and you stay here

'I will go tomorrow and you will stay here'

- (23) chin to hecal an [yaj chach can beti']
I go tomorrow 1p but you stay here

'I will go tomorrow but you stay here'

- (24) xwichecoj an [slahni wunin an]
I started 1p and finish my child 1p

'I started (it) and my daughter finished (it)'

E. juxtaposed sentences expressing simultaneous actions:

- (25) liH an hin an [xwilni sine an]
standing up I 1p I saw movie 1p

'I saw the movie standing up'

- (26) chin xubli an [xintx'ahni xil kape an]
 I whistle 1p I washed clothes 1p
 'I washed the laundry whistling'

The suffix -n(i) on the transitive verbs of the second clauses signals the interdependency of the two clauses.

2.3. Islands Defined by the Position of an

By being placed as the last element before either the opening or the closing boundary of a clause, the particle an signals the existence of islands in the language.

3. an PLACEMENT

3.0.

The placement of the particle an is a very superficial operation. It is marked by two characteristics. First, the operation is sensitive to boundaries of surface sentences alone and therefore does not reflect deep structures. Second, it applies everywhere it can, with the sole restriction that there be only one particle per clause.

3.1. Surface Boundary

The first characteristic of the placement operation is illustrated with an example of an placement after Clefting has applied to a sentence like (27):

- (27) xal naj chubil x'apni hin mam an
 said cl/he that arrived my father 1p
 'he said that my father had arrived'

In (27) the an particle in the sentence final position corresponds to the first person of the complement sentence hin mam 'my father'. After clefting of the NP containing the first person, the particle an is placed at a clause boundary inside the complex sentence:

- (28) ha' hin mam xal naj an chubil x'apni
 cleft my father said cl/he 1p that arrived
 'it is my father that he said had arrived'

an stands right before the first heavy clause boundary and at the end of a sequence which does not constitute a sentence as shown by the ungrammaticality of *(29):

- (29) *ha' hin mam xal naj an
 cleft my father said cl/he 1p
 (it is my father that he said)

The particle an moves down the sentence to the right of the clefted NP until it is stopped by a clause boundary, regardless of the level of embedding that the boundary represents. This means that in clefted sentences with a nominal object an goes to the end of the sentence, passing over the object:

- (30) ha' hin mam xalni ha kumal an
 cleft my father said your criticism 1p
 v 0 1p
 'it is my father who said criticisms of you'

In clefted sentences with a sentential object of the CS#1 type, an stops before the object:

- (31) ha' hin mam xal naj an chubil x'apni
 cleft my father said cl/he 1p that arrived
 v S 0-----
 'it is my father that he said had arrived'

3.2. One Particle Per Clause

The second characteristic of the an placement operation is that there may be only one particle per clause but as many particles as there are clauses per sentence. The complement sentence of example (32) can contain only one particle an:

- (32) xal naj chubil x'apni hin mam
 said cl/he that arrived my father
 watut an *(an)
 my home 1p (1p)

'he said that my father had arrived to my house'

However, the ungrammatical second an in sentence (32) appears in surface structure after Clefting has applied and has removed one of the two first persons from the complement clause:

- (33) ha' hin mam xal naj an chubil x'apni
 cleft my father said cl/he 1p that arrived
 watut an
 my home 1p

'it is my father that he said arrived at my house'

Sentence (34) illustrates in one sentence how there may be only one an per clause but several per complex sentence:

- (34) hin xaŋab xinlok yet kiŋal an *(an)
 my sandal I bought when fiesta 1p (1p)
 chintxoŋ-toj no' an haxcami xya'bi
 I sell-away cl/them 1p because hurts
 woj yu no' an
 my foot by cl/them 1p

'my sandals that I bought at the fiesta, I will sell them because they hurt my feet'

4. CONCLUSIONS

The particle an signals the presence of a first person in a sentence. Although it appears always at the end of clauses it is not a syntactic boundary marker but rather a semantic marker emphasizing the first person. However, its position provides a means for distinguishing two types of complex sentences--"flat structures" with transparent boundaries that do not stop the particle and "disjunctive structures" with opaque boundaries that stop the particle.

The particle an marks the boundaries of heavier islands. In this respect, it is interesting to note that the rule of Noun Classifier Deletion provides the same distinction between flat structures and heavier island structures. A more complete discussion of this rule was presented in Chapter 5 Noun Classifier Deletion. A chart below will summarize the two clause types which are defined on the basis of the applicability of the rule of Noun Classifier Deletion and an Placement:

	Transparent boundaries		Opaque boundaries		
	Relative Clause	CS#2	CS#1	Adverbial Clause	Coordinate Clause
N Cl Del	+	+	—	—	—
<u>an</u> placement	+	+	—	—	—

NOTES

1. The use of an is noticeably different in the Concepción dialect of Jacaltec. There, an may mark any constituent of a clause, so that a clause may contain several instances of the particle. The discussion of an in this section is therefore restricted to its use by the Jacaltenango, bilingual, young adult informants.
2. The instability of the system makes it difficult to determine when the use of the particle is obligatory. It is certainly used to mark definite emphasis even by those speakers that use it rarely. One informant, who was 40 years old, almost never used it in direct elicitation, while another, who was 32 years old, seemed to use it any time he could.
3. The presence of the particle immediately following the topicalized NP is an interesting fact. It could be that

the topicalized NP is the only element left of a whole clause and that Topicalization consists of the doubling of the clause and subsequent deletion of constituents.

10. A Promotion Rule

Jacaltec intransitive aspectual verbs are found in two constructions, with either an impersonal third person or an animate subject. These two constructions are described in Section 1, and their relationship to each other is discussed in Section 2. A Promotion rule which accounts for the presence of an animate subject of intransitive aspectual verbs is proposed in Section 3.

1. IMPERSONAL AND PERSONAL INTRANSITIVE ASPECTUALS

1.1. Transitive and Intransitive Verbs

In Jacaltec transitive and intransitive verbs are formally distinct. They are distinguished from one another by:

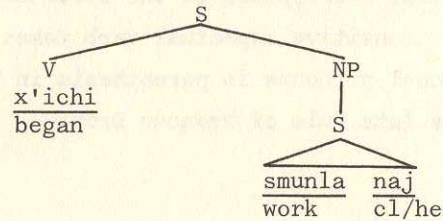
- A) different verbal stem augments, -a/-o/-e# for transitives and -(y)i# for intransitives;
- B) different irrealis future suffixes, -V'/-b# for transitives and -oj# for intransitives;
- C) different case markings.

Sentences in example (1) contain intransitive verbs, and sentences in example (2) transitives:¹

- (1) a. ch-ach ok-i
asp-A2 cry-stem aug^t
'you cry'
- b. ch-oh to-yi
asp-A1pl go-stem aug^t
'we go'
- c. ch-in way-oj
asp-A1 sleep-fut
'I will sleep'

The verb *ichi* 'to begin' takes an absolutive third person A3:∅ which corresponds to the NP node of the sentential subject. This sentential subject is an aspectless embedded clause.

(9) a.

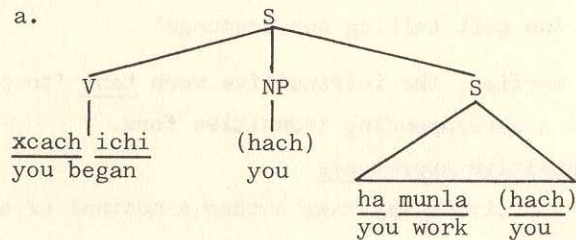


- b. x-∅-'ichi s-munla naj
 asp-A3-begin E3-work cl/he
 'he began to work'

1.3. Alternation in Intransitive Aspectual Constructions

Intransitive aspectual verbs are sometimes inflected for animate subjects which are coreferential with the subjects of the embedded clauses. The tree diagram (10a) illustrates the structure of sentence (10b) just before the personal pronouns in parentheses are deleted by the rule of Pronoun Drop:

(10) a.



- b. xc-ach ichi ha munlayi
 asp-A2 begin E2-work
 'you began to work'

The verb *ichi* 'to begin' inflects for an animate subject, and the aspectless embedded clause functions as a sentence complement.

Examples (11) and (12) provide additional data

illustrating the two forms of intransitive aspectual verbs corresponding to structures (9a) and (10a) above:

- (11) a. x-∅-tuci ∅ cu-tzote-n j-abxubal
 asp-A3-stop A3 E1pl-talk-suff E1pl-language
 lit: it stopped we talk our language
 'we stopped talking our language'
- b. xc-∅-tuci ∅ cu-tzote-n j-abxubal
 asp-A1pl stop A3 E1pl-talk-suff E1pl-language
 lit: we stopped we talk our language
 'we stopped talking our language'
- (12) a. maɣtic'a x-∅-taŋ-oj ∅ y-al-ni
 never asp-A3-stop-fut A3 E3-say-suff
 ix hun tu'
 cl/she one that
 lit: it will never stop she says that
 'she will never stop saying that'
- b. maɣtic'a x-∅-taŋ-oj ix
 never asp-A3-stop-suff cl/she
 ∅ y-al-ni hun-tu'
 A3 E3-say-suff one that
 lit: she will never stop she says that
 'she will never stop saying that'

2. ONE OR TWO SETS OF INTRANSITIVE ASPECTUAL VERBS?

2.1. The Hypotheses

Two hypotheses can be considered to account for the alternation found in intransitive aspectual constructions. The first hypothesis is that there are two sets of intransitive aspectual verbs. This means that diagrams (9a) and (10a) correspond to two deep structures, one in which the intransitive verb takes a sentential subject, and one in which it takes an animate subject and a sentential complement, respectively. The second hypothesis is that one of the diagrams corresponds to a deep structure from which the other one is derived.

Depending on which construction is the deep structure, the other is derived either by deleting the main animate subject or by replacing the inanimate sentential subject with an animate one.

2.2. One Set of Intransitive Aspectual Verbs

In the following paragraphs several facts will be presented in support of the analysis which takes the construction with the inanimate sentential subject as basic and the one with the animate subject as derived from it.

The first fact is that the intransitive aspectual verbs take only inanimate subjects in simplex sentences, as shown by the ungrammaticality of sentences *(13b), *(14b), and *(15b):

(13) a. x'ichi munil
began work
'the work began'

b. *x'ichi naj
began cl/he
(he began)

(14) a. xtuci cañal
was over dance
'the dance was over'

b. *xtuci heb naj
was over pl cl/him
(they(men) were over)

(15) a. xtañ howal
ended fight
'the fight ended'

b. *xtañ ix
ended cl/she
(she ended)

This restriction on subjects indicates that the animate subjects of intransitive aspectual verbs are not deep

structure subjects. In contrast, transitive aspectual verbs take animate subjects in simplex sentences:

(16) xiche naj munil
began cl/he work
'he began the work'

(17) xtucba naj howal
stopped cl/he fight
'he stopped the fight'

The second fact is that the intransitive aspectual verbs do not occur in the imperative mood, a fact which is predictable from the inanimate nature of their subjects:³

(18) a. *ich-añ began-IMP 'begin!'	b. *tuc-añ stop-IMP 'stop!'	c. *tañ-añ cease-IMP 'cease!'
--	-----------------------------------	-------------------------------------

The ungrammaticality of the intransitive imperative forms of example *(18) contrasts with the grammaticality of the imperative forms of the transitive counterparts (19) and (20) and of other intransitive verbs taking animate subjects (21) and (22):

(19) a. ch-∅-aw-iche
asp-A3-E2-begin
'you begin it'

b. iche
'begin it!'

(20) a. ch-∅-a-tucba
asp-A3-E2-stop
'you stop it'

b. tucba
'stop it!'

(21) a. chach wayi
asp-A2 sleep
'you sleep'

b. way-añ
sleep-IMP
'sleep!'

(22) a. ch-ach oci
asp-A2 enter
'you enter'

b. oc-añ
enter-IMP
'come in!'

If the animate subjects of the main aspectual verbs in examples (23) and (24) were in the deep structure, the imperative forms *(25) and *(26) would be grammatical:

(23) xc-ach ichi ha-munlayi
asp-A2 begin E2-work
'you began to work'

(24) xc-ach tuci ha-tz'ebi
asp-A2 stop E2-laugh
'you stopped laughing'

(25) *ich-añ ha-munlayi
begin-IMP E2-work
'begin to work!'

(26) *tuc-añ ha-tz'ebi
stop-IMP E2-laugh
'stop laughing!'

The ungrammaticality of sentences *(25) and *(26) shows that the main verbs ichi 'to begin' and tuci 'to stop' do not have an animate subject when Imperative Deletion applies to the sentence.⁴ The animate subject of examples (23) and (24) are therefore not generated in the deep structure. This leaves

the construction in which the subject is inanimate as the only possible deep structure for sentences with intransitive aspectual verbs.

2.3. Derived Animate Subjects

Since the intransitive aspectual construction with an inanimate subject is the only possible deep structure form, the construction with an animate subject must be derived from it. Recalling examples (9) and (10) above, this means that sentence (10b) is derived from sentence (9b):

9 b. x-Ø-'ichi ha-munlayi
asp-A3-begin E2-work
'you began to work'

10 b. xc-ach ichi ha-munlayi
asp-A2 begin E2-work
'you began to work'

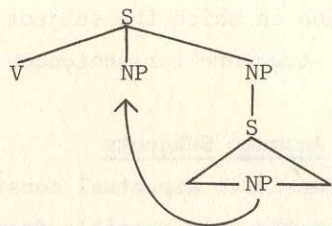
The derivation consists of providing the aspectual verb with an animate subject.

3. THE RULE - RAISING OR PROMOTION?

3.1. Similarity to a Subject Raising Rule

On first inspection the rule resembles a Subject Raising rule. Like a raising rule it takes an NP in an embedded clause and turns it into a constituent of a higher predicate.⁵ In the case of the Jacalteco aspectual construction, the rule applies to the subject of the embedded clause to make it the subject of the main verb. In order for the raised NP to be treated as the subject of the main verb, it would have to be raised as a daughter node of the higher S node:⁶

(27)



If the rule is analyzed as a Subject Raising rule the process of case marking in the upper clause must then be accounted for. By raising an NP, the intransitive verb is followed by two NPs, the new and the old subjects. According to the ergative type of case marking of finite verbal clauses, the following pattern of case assignment would be expected:

V	<u>NP</u>	<u>NP</u>
	Erg	Abs

The first NP immediately following the verb would receive an ergative case marker and the second an absolutive. However, there is clearly no ergative marking on the verb as seen in the ungrammaticality of sentence *(28b):

- (28) a. xc-ach ichi ha-munlayi
asp-A2-begin E2-work
'you began to work'
- b. *x-Ø-aw-ichi ha-munlayi
asp-A3-E2-begin E2-work
'you began to work'

Thus, one of two things would have to happen. Either both NPs are marked absolutive, or only one NP--the raised one--undergoes case marking. In the first case, the rule of case marking would have to be reformulated since it does not allow for doubling of case the way it stands in Chapter 3 Case Marking.⁷ In the second case, one would have to say that once the NP is raised it becomes a major constituent of the upper S node. This raised NP then assumes the syntactic relation that the sentential subject used to play, while the old subject out of

which it has been raised loses its ability to undergo case marking.⁸

3.2. Difference from a Subject Raising Rule

Unlike a Subject Raising rule the rule is a copying rule which leaves the original animate NP in the embedded clause. This is evidenced by the presence of a case marker on the aspectless embedded verb. Notice the presence of two second person case markers in sentence (29b):

- (29) a. x-Ø-'ichi ha-munlayi
asp-A3-begin E2-work
'you began to work'
- b. xc-ach ichi ha-munlayi
asp-A2 begin E2-work
'you began to work'
- c. *xc-ach ichi munlahoj
asp-A2 begin to work
'you began to work'

The ergative case marker in the embedding is assigned by the nominative/accusative type of Case Marking rule, which operates in aspectless environments and marks all subjects ergative. The infinitive form munlahoj 'to work' in the ungrammatical sentence *(29c) would be the embedded form expected if the subject had been raised, leaving the verb with no NP.

Once the NP has been copied, the rule of Pronominalization applies *(30b), followed by the rule of Noun Classifier Deletion when the NP is a third person (30c). The presence of the third person ergative marker on the embedded verb (30c) clearly indicates that the operation of Equi-NP Deletion has not applied *(30d):

- (30) a. x-Ø-'ichi s-munla ix tina
asp-A3-begin E3-work cl Trinidad
'Trinidad began to work'

- b. *x-∅-'ichi ix tina s-munla
asp-A3-begin cl Trinidad E3-work
ix ----
cl/she Pron Del
'Trinidad began to work'
- c. x-∅-'ichi ix tina s-munlayi ----
asp-A3-begin cl Trinidad E3-work N Cl Del
'Trinidad began to work'
- c. *x-∅-'ichi ix tina munlahoj ----
asp-A3-begin cl Trinidad to work Equi Del
'Trinidad began to work'

A second characteristic of the rule which makes it less likely to be a raising rule is that the language exhibits very specific restrictions on which NPs may become surface structure subjects of intransitive aspectual verbs. The three parameters that determine whether an NP can be raised are:

- A) whether the NP is animate or inanimate;
- B) whether it is the subject of a transitive or an intransitive verb;
- C) whether it is a deep structure or a derived subject.

The first restriction--on the animacy of the NP--is observed by all speakers and accounts for the ungrammaticality of examples *(33b) and *(34b) in which the NP is inanimate, in contrast with the grammaticality of examples (31b) and (32b) in which the NP is animate:

- (31) a. x-∅-'ichi s-munla ix
asp-A3-begin E3-work cl/she
'she began working'
- b. x-∅-'ichi ix s-munlayi
asp-A3-begin cl/she E3-work
'she began working'

- (32) a. x-∅-tuci s-bey naj yulaj finca
asp-A3-quit E3-goes cl/he to plantation
'he quit going to the plantation'
- b. x-∅-tuci naj s-bey yulaj finca
asp-A3-quit cl/he E3-go to plantation
'he quit going to the plantation'
- (33) a. x-∅-'ichi s-tah te' hubal
asp-A3-begin E3-dry cl/the beans
'the beans began to dry'
- b. *x'ichi te' hubal s-tahi
asp-A3-begin cl/the beans E3-dry
'the beans began to dry'
- (34) a. x-∅-tañ s-watx'i te' ñah
asp-A3-finish E3-made cl/the house
'the house got built'
- b. *x-∅-tañ te' ñah s-watx'i
asp-A3-finish cl/the house E3-made
'the house got built'

The restriction could be the result of an analogy with the transitive aspectuals which take only animate subject.

Some speakers have a further restriction on the copying of an animate subject. In their speech, the subject of a transitive cannot be copied either. The constraint is not on copying an NP marked with a certain case as opposed to the other case, since both subjects of transitives and subjects of intransitives take an ergative case marker in an aspectless embedded clause. Thus, while all speakers agree on the grammaticality of sentences (35a), (36a), and (37a) in which copying has applied to the subject of an intransitive, opinions are divided with respect to sentences (35b), (36b), and (37b) in which copying has applied to the subject of a transitive. The notation (*) means that it is an acceptable

sentence to some speakers but an unacceptable one to other speakers:

- (35) a. xc-in ichi hin-munlayi
asp-A1 begin E1-work
'I began to work'
- b. (*)xc-in ichi hach hin-mak-ni
asp-A1 begin A2 E1-hit-suff
'I began to hit you'
- (36) a. xc-oh tuci cu-bey yulaj finca
asp-A1pl quit E1pl-go to plantation
'we quit going to the plantation'
- b. (*)xc-oh tuci ∅ cu-tzote-n j-abxubal
asp-A1pl quit A3 E1pl-talk-suff E1pl-language
'we quit talking our language'
- (37) a. xc-ach tafi ha-tz'ebi
asp-A2 stop E2-laugh
'you stopped laughing'
- b. (*)xc-ach tafi ∅ haw-al-ni hun-tu'
asp-A2 stop A3 E2-say-suff one-that
'you stopped saying that'

For some speakers, copying can apply to the derived subject of a passive verb:

- (38) a. x-∅-'ichi-coj hin-mak-laxi
asp-A3-begin-dir E1-hit-PASS
'I began to be hit'
- b. (*)xc-in ichi-coj hin-mak-laxi
asp-A1 begin-dir E1-hit-PASS
'I began to be hit'
- (39) a. x-∅-tuci ha-tohla-laxi
asp-A3-stop E2-pay-PASS
'you stopped being paid'

- b. (*)xc-ach tuci ha-tohla-laxi
asp-A2 stop E2-pay-PASS
'you stopped being paid'

The division among speakers seems to be between those who have a very restricted rule of Promotion and those who have a less restricted one. In the restricted version of the rule only animate subjects of intransitive active verbs are promoted, while in the less restricted version, all animate subjects are promoted—whether they are subjects of intransitive active or passive verbs, or of transitive verbs.

Thus, while the restriction on the animacy of the NP is absolute, the other restrictions are a matter of dialectal variation. Speakers for whom copying the subject of a passive verb is ungrammatical make a clear distinction in the degree of grammaticality of sentences in which a derived inanimate and a derived animate subject have been raised; to them sentence *(40b) is clearly more ungrammatical than sentence *(39b):

- (40) a. x-∅-'ichi s-lok-lax ixim ixim
asp-A3-begin E3-sell-PASS cl/the corn
'the corn began to be sold'
- b. *x-∅-'ichi ixim ixim s-lok-laxi
asp-A3-begin cl/the corn E3-sell-PASS
'the corn began to be sold'

3.3. A Promotion Rule

The presence of an animate NP as the subject of an intransitive aspectual verb is the result of a Promotion rule in which the subject of an embedded clause is "promoted" to the rank of subject of the main clause. This copying operation precedes Case Marking since the ergative case of the embedded subject is not copied with the NP; the promoted subject is assigned

an absolutive.¹⁰

The operation occurs with embedded aspectual verbs too.¹¹ In fact, while the application of the Promotion rule is optional if the aspectual verb is the highest predicate of a sentence, it becomes obligatory if it is itself embedded. This is shown by the ungrammaticality of examples *(41b) and *(42b) in which Promotion has not applied:

(41) a. xc-ach y-iptze naj ha-tuci ha-bey
asp-A2 E3-force cl/he E2-stop E2-go
yulaj finca
to plantation
'he forced you to stop going to the plantation'

b. *xc-ach y-iptze naj s-tuci ha-bey
asp-A2 E3-force cl/he E3-stop E2-go
yulaj finca
to plantation
'he forced you to stop going to the plantation'

(42) a. ay w-ala' ch-in ichi-coj
is E1-would like asp-A1 begin-dir
hin-munlayi
E1-work
'I would like to begin to work'

b. *ay w-ala' ch-∅-'ichi-coj
is E1-would like asp-A3-begin-dir
hin-munlayi
E1-work
'I would like to begin to work'

The application of the Promotion rule is obligatory and does not depend on selectional restrictions of the main verb. Although the verb *iptze* 'to force' requires identity of reference between its object and the subject of the embedded clause, the verb *ay -ala'* 'would like' does not require identity of the subjects of the upper and the lower clause.

The obligatory application of the Promotion rule in embedding is not a characteristic of the rule itself but rather a characteristic of the phenomenon of complementation in this language. The constraint seems to be that main verbs inflected for animate subjects require the verb directly embedded under them to be inflected for animate subjects too.¹²

4. CONCLUSIONS

The operation which provides Jacaltec intransitive aspectual verbs with a surface structure animate subject is a copying rule. It is followed by the agreement rules on both the main aspectual verb and the embedded verb. The copying process, the restriction on the subject undergoing the rule, and the agreement feature on the embedded verb are all characteristics which distinguish the Promotion rule from a raising rule.

NOTES

1. The verbal stem augment is lost when the verb is not in sentence final position:

(a) xwala#	(b) xwal_ tawet
'I said it'	'I said it to you'

Certain augments never drop, however; they are the *-e* of derived transitive verbs and the *-i* of intransitive verbs that end in a consonant cluster or belong to a ∅ derivational suffix category:

(c) chin aʔni#	(d) chin aʔni yet may
'I bathe'	'I bathe in the morning'

The verbal augments of both the intransitive *ichi* and the transitive *iche* do not drop.

2. See Perlmutter's article "The Two Verbs Begin" (1970) for

a discussion of a similar phenomenon in English.

3. Transitives also have agentive nominalizations:

(a) haw-uʔtaj iche-hom howal yiH anma
E2-brother beginner fight in people

'your brother is a trouble maker'

(b) ha' naj tucba-hom howal
cleft cl/he finisher fight

'this man is a stopper of fights'

Intransitives do not have the equivalent:

(c) *ha' naj ichihom

(d) *ha' naj tucom

Similarly the intransitive aspectual verbs are not found embedded under verbs requiring Equi-NP relation between main and embedded subjects:

(e) xwilwe caʔalwoj
I tried to dance

'I tried to dance'

(e') *xwilwe ichoj
I tried to begin

'I tried to begin'

(f) skan hin c'ul sajchoj
wants my stomach to play

'I want to play'

(f') *skan hin c'ul ichoj
wants my stomach to begin

'I want to begin'

There is no Equi-NP Deletion of subjects of transitives as will be discussed in Chapter 11 Equi-NP Deletion.

Transitive aspectuals may be embedded in the aspectless form of the complement sentence:

(g) xwilwe hin watx'en kap camiʔe
I tried I make cl/the shirt

'I tried to make the shirt'

(g') xwilwe wichencoʔ kap camiʔe
I tried I begin cl/the shirt

'I tried to start the shirt'

(h) skan hin c'ul hin lob' no' chibe
wants my stomach I eat cl/the meat

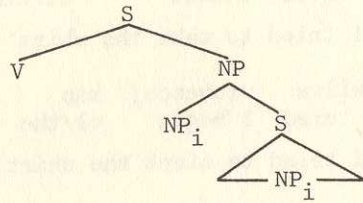
'I want to eat the meat'

(h') skan hin c'ul wiche'coj munil
wants my stomach I begin work

'I want to begin to work'

4. The ungrammaticality of *(25) and *(26) indicates one of two things: either that at the time Imperative applies the verb does not have an animate subject, or that it does but that the Imperative rule applies only to predicates which take a deep structure animate subject which is the controller of the action and that the rule identifies the subject of the intransitive aspectual as a derived subject.
5. Raising to subject position is found in English in sentences like:
- (a) It is difficult to convince Mark.
- (b) Mark is difficult to convince.
6. An alternative analysis might be a derived structure like:

(a)



This derived structure resembles the relative clause structure. It is different from a relative clause, however, in that no subsequent deletion affects the lower co-referential NP_i once raising has applied, although it would share with the relative clause construction the fact that the head noun NP_i inflects directly on the main verb with a case assigned in fact to the NP node directly dominating it.

To test whether the raised NP has become the subject of the aspectual verb, one might observe whether it undergoes the rule of Equi-NP Deletion like any other subject of an intransitive. If it were not deleted, one could then argue that it is because the raised subject of the aspectual is not directly dominated by the S node of the complement sentence. When embedded under a verb of causation, no Equi-NP Deletion applies. The operation of Equi-NP Deletion in example (b) contrasts with the lack of deletion in (c):

(b) xc-ach y-iptze ix munlahoj
 asp-A2 E3-force cl/she to work
 'she forced you to work'

(c) xc-ach y-iptze ix ha-tuci ha-bey
 asp-A2 E3-force cl/she E2-quit E2-go
 yulaj finca
 in to plantation
 'she forced you to quit going to the plantation'

However, it is not certain that the absence of deletion of the coreferential NP is an argument for one structure rather than the other. It is very likely that the rule of Equi-NP Deletion is restricted to those sentences in which no sentence is further embedded under the intransitive verb. No data were gathered on this question, but the restricted structure of aspectless complement sentences observed in several other instances would seem to indicate that such a restriction may exist. See Chapter 11 Equi-NP Deletion and Chapter 13 Manner Adverbial Sentences for other instances of the particular structure of aspectless embedded clauses.

7. There are attested cases of a doubling of case marking on the verb under the condition that one of them be an inaudible \emptyset marker. In Tzotzil (Mayan) the indirect object inflects on the verb but the sentence is possible only if it is a third person A3: \emptyset . See Craig and Robertson (1972) for a description of this construction. For a discussion of a comparable phenomenon in Walbiri see Hale's paper on person marking (1973).
8. Such a process is treated in Relational Grammar by Postal and Perlmutter (forthcoming). It corresponds to the Functional Succession Law: "The NP promoted by an operation 0 of an Ascension Rule takes on the termhood of the host for 0" and to the Functional Annihilation Law: "The victim of an operation of a promotion rule becomes a non-term in the output."
9. Two other rules of promotion similar to the Promotion rule of Jacaltec can be contrasted here. The first one is referred to by Perlmutter as Head Start and occurs in

Spanish in such pairs of sentences as the following:

(a) parece que los niños estan aburridos
it seems that the children are bored

'it seems that the children are bored'

(b) los niños parece que estan aburridos
the children seems that are bored

'the children seem to be bored'

The subject of the embedded clause, los niños, has been preposed to the whole sentence and stands in surface structure subject position of the main verb. However, the verb parece does not agree with this new subject and remains singular. The second construction is found in Portuguese with some "impersonal verbs" and was discussed by Quicoli (1972). Quicoli distinguishes the rule of Subject Replacement operating in sentence (c) from the rule of NP Detachment operating in sentence (d):

(c) as coisas parecem estar quentes
the things(pl) seem (pl) to be hot

em Belfast
in Belfast

'things seem to be hot in Belfast'

(d) as coisas parece estarem quentes
the things(pl) seem to be (pl) hot

em Belfast
in Belfast

'things seem to be hot in Belfast'

Subject Replacement is a cyclic rule, and the verb parece agrees with its new subject which is plural. NP Detachment is a post-cyclic rule, but it follows the rule of Verb Agreement which is also post-cyclic in Portuguese. Agreement occurs only on one verb as shown by the ungrammaticality of the following sentence:

(e) *as coisas parecem estarem quentes
the thing(pl) seem (pl) to be (pl) hot

em Belfast
in Belfast

'things seem to be hot in Belfast'

Both Subject Replacement and NP Detachment are movement rules in Portuguese, as was the Head Start rule of Spanish. The copying rule of Jacaltec differs from all three rules by the requirement of agreement in both the main and the embedded clause.

10. Alternatively, Case Marking can be said to apply before the rule of Promotion. The promoted NP then takes over the absolutive marker of the old subject and readjusts only the person feature. This process distinguishes the two operations of case and person marking. See Chapter 3, Note 11 for another construction in which case and person marking are independent of one another.
11. This would further indicate that the Jacaltec Promotion rule is not a "root" transformation, unlike the Portuguese rule of NP Detachment:
 - (a) *Fabiano cre que os pilotos consta terem morrido de coraçãõ
'Fabian believes that the pilots are reported to have died from a heart attack'
 - (b) *Fabiano cre que as coisas parece que estaõ quentes em Belfast
'Fabian believes that things seem to be hot in Belfast'
12. Other constraints on complement sentences of the aspectless type are discussed in other chapters—Chapter 6

Relative Clause Formation, Chapter 11 Equi-NP Deletion, and Chapter 12 Manner Adverbial Sentences.

11. Equi-NP Deletion

Equi-NP Deletion is the operation which deletes a subject NP in an embedded clause under coreferentiality with either the subject or the object of a main clause. The different types of Equi-NP Deletions found in Jacaltepec will be considered in this chapter. The infinitival complement sentence resulting from Equi-NP Deletion is presented in Section 1. Subject triggered cases of Equi-NP Deletion are treated in Section 2, while object triggered cases of such a deletion rule are treated in Section 3. Restrictions on the application of Equi-NP Deletion and a case of Backward Equi-NP Deletion in which the subject of the embedded verb triggers the deletion of the subject of the main verb are considered in Section 4.

1. INFINITIVAL COMPLEMENT SENTENCE

The rule of Equi-NP Deletion deletes the subject of an embedded clause, leaving the verb uninflected for person and suffixed with the irrealis suffix -oj:¹

- (1) a. xc-ach to sajch-oj
asp-A2 go to play-suff
'you went to play'
- b. *xc-ach to ha-sajchi
asp-A2 go E2-play
'you went to play'
- (2) a. ch- \emptyset -(y)-oche naj cattalw-oj
asp-A3-E3-like cl/he to dance-suff
'he likes to dance'

- b. *ch-Ø-(y)-oche naj s-caḥalwi
asp-A3-E3-like cl/he E3-dance

'he likes to dance'

- (3) a. xc-ach w-iptze munlah-oj
asp-A2 E1-force to work-suff

'I forced you to work'

- b. xc-ach w-iptze ha-munlayi
asp-A2 E1-force E2-work

'I forced you to work'

Sentences (1) and (2) correspond to constructions in which the application of the rule of Equi-NP Deletion is obligatory and sentence (3) to a construction in which it is optional.

If the main verb does not require the Equi-NP Deletion rule to apply, then the embedded intransitive clause is an aspectless embedded complement sentence in which the subject is marked ergative:

- (4) a. w-ohtaj hin-chemli
E1-know E1-weave

'I know how to weave'

- b. *w-ohtaj cheml-oj
E1-know to weave-suff

'I know how to weave'

- (5) a. ch-ach cabcoḥ haw-aḥni haxca chew
asp-A2 hesitate E2-bathe because cold

ha' ha'
cl/the water

'you hesitate to bathe because the water is cold'

- b. *ch-ach cabcoḥ aḥn-oj haxca chew
asp-A2 hesitate to bathe-suff because cold

ha' ha'
cl/the water

'you hesitate to bathe because the water is cold'

- (6) a. *y-ohtaj naj_i s-caḥalwi naj_i
E3-know cl/he E3-dance cl/he

'he knows how to dance'

- b. y-ohtaj naj s-caḥalwi ----
E3-know cl/he E3-dance N Cl Del

'he knows how to dance'

- c. *y-ohtaj naj caḥalw-oj
E3-know cl/he to dance-suff

'he knows how to dance'

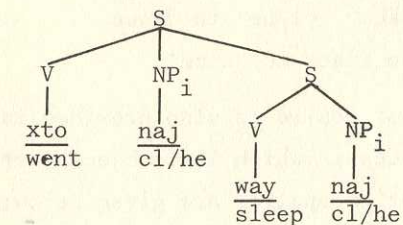
The absence of a coreferential noun classifier in the aspectless embedded intransitive clause of (6b) is due to the application of the rule of Noun Classifier Deletion and not that of Equi-NP Deletion, as signaled by the presence of an ergative marker.

2. SUBJECT TRIGGERED EQUI-NP DELETION

2.1. Verbs of Movement

Verbs of movement are one of the two groups of verbs which require Equi-NP Deletion. They are intransitive verbs which take a sentence complement:

- (7) a.



- b. xto naj wayoj
went cl/he to sleep

'he went to sleep'

A list of the movement verbs is provided in Appendix C. Examples of this construction are:

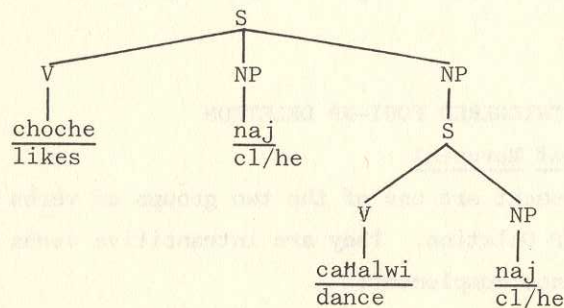
(8) xcach to aʔnoʃ sti' ha' niman
 you went to bathe its mouth water big
 'you went to bathe by the river bank'

(9) x'apni naj wayoj betu'
 arrived cl/he to sleep there
 'he arrived there to sleep'

2.2. Verbs of Desire

The other verbs requiring Equi-NP Deletion are the verbs of desire. These are transitive and take a sentential object:²

(10) a.



b. choche naj caʔalwoj
 like cl/he to dance
 'he likes to dance'

A list of verbs of desire is also provided in Appendix C. Examples of sentences in which the subjects are coreferential and Equi-NP Deletion applies are given below:

(11) ʔwa' tet wanma wayoj
 I give to my heart to sleep
 'I feel like sleeping'

(12) skan ha c'ul sajchoj
 wants your stomach to play
 'you want to play'

(13) sje hin c'ul bitnoj
 would like my stomach to sing
 'I would like to sing'

2.3. Deletion of Agent Only

Equi-NP Deletion does not apply to derived subjects of passive verbs embedded under either verbs of movement or verbs of desire. Once Passive has applied in the embedded clause, no deletion can affect the coreferential subject of a passive verb and the complement sentence is of the aspectless embedded type:

(14) a. ch-in col-lax-øj
 asp-A1 help-PASS-suff
 'I am helped'

b. *s-kan hin-c'ul col-lax-øj
 E3-want E1-stomach help-PASS-suff
 'I want to be helped'

c. s-kan hin-c'ul hin-col-lax-i
 E3-want E1-stomach E1-help-PASS-stem aug^t
 'I want to be helped'

(15) a. x-∅-col-lax naj
 asp-A3-help-PASS cl/he
 'he was helped'

b. *ch-∅-(y)-oche naj col-lax-øj
 asp-A3-E3-like cl/he help-PASS-suff
 'he likes to be helped'

c. ch-∅-(y)-oche naj s-col-lax-i
 asp-A3-E3-like cl/he E3-help-PASS-stem aug^t
 'he likes to be helped'

- (16) a. x-∅-mak-lax naj
asp-A3-hit-PASS cl/he
'he was hit'
- b. *s-je naj mak-lax-oj
E3-agree cl/he hit-PASS-suff
'he agreed to be hit'
- c. s-je naj s-mak-lax-i
E3-agree cl/he E3-hit-PASS-stem aug^t
'he agreed to be hit'

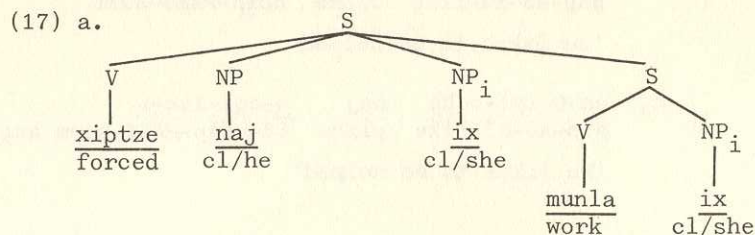
The absence of the coreferential noun classifier in (15c) and (16c) is due to the application of the rule of Noun Classifier Deletion which has left the third person ergative case marker s- on the verb.

The rule of Equi-NP Deletion applies only to subjects of active verbs. Since the NP triggering the deletion is always itself the subject of an active verb, the constraint appears to be that agent NPs trigger the deletion only of other agent NPs in an embedded intransitive clause. For Equi-NP Deletion to apply, both main and embedded subjects must be the controllers of the actions expressed by the verbs.

3. OBJECT TRIGGERED EQUI-NP DELETION

3.1. Verbs of Causation

Verbs of causation are transitive verbs which take a sentence complement. The object of the main verb is coreferential with the subject of the embedded verb and triggers its deletion:



- b. xiptze naj ix munlahoj
force cl/he cl/her to work
'he forced her to work'

Other examples of this causative construction are:

- (18) ch-oh s-chej ya' wayoj
asp-A1pl E3-order cl/he to sleep
'he orders us to sleep'
- (19) ch-ach hin-cuytze sajchoj
asp-A2 E1-teach to play
'I am teaching you how to play'

3.2. Optional Equi-NP Deletion

Unlike the obligatory Equi-NP Deletion rule triggered by a main subject, the Equi-NP Deletion rule triggered by a main object is not obligatory. Infinitival complement sentences resulting from Equi-NP Deletion alternate with aspectless embedded clauses. Examples (20) and (21) below with aspectless embedded clauses correspond to examples (18) and (19) above with infinitival complement sentences:

- (20) ch-oh s-chej ya' cu-wayi
asp-A1pl E3-order cl/he E1pl-sleep
'he orders us to sleep'
- (21) ch-ach hin-cuytze ha-sajchi
asp-A2 E1-teach E2-play
'I am teaching you how to play'

3.3. Deletion of Subjects of Passive Verbs

Equi-NP Deletion with verbs of causation can apply to the output of a passive transformation and delete a derived subject in the lower clause. This constitutes another difference between subject triggered and object triggered Equi Deletion:

- (22) a. ch-ach atte-lax-i
asp-A2 cure-PASS-stem aug^t
'you are cured'
- b. xc-ach w-iptze atte-lax-oj
asp-A2 E1-force cure-PASS-suff
'I forced you to be cured'
- (23) a. xc-in il-lax-i y-u ya' doctor
asp-A1-see-PASS-stem aug^t E3-by cl/the doctor
'I was seen by the doctor'
- b. xc-in y-iptze naj il-lax-oj y-u
asp-A1 E3-force cl/he see-PASS-suff E3-by
ya' doctor
cl/the doctor
'he forced me to be seen by the doctor'

Thus, when the NP triggering the deletion is the object of the main clause, there is no restriction on which NP it can delete in the embedded clause--an agent (subject of active verb) or a patient (subject of passive verb).

3.4. Infinitive Float

Once Equi-NP Deletion has applied to the intransitive subject and once the lower verb has turned into an infinitive, three alternative word orders can be found after the verb of causation:

- (24) a. CAUSE S O INF
b. CAUSE S INF O
c. CAUSE INF S O

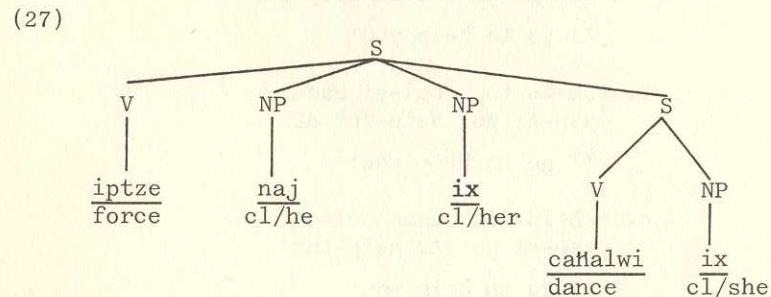
These three possible word orders are illustrated in the examples below:

- (25) a. chiptze ya' naj munlahoj
forces cl/she cl/him to work
'she forces him to work'
- b. chiptze ya' munlahoj naj
- c. chiptze munlahoj ya' naj

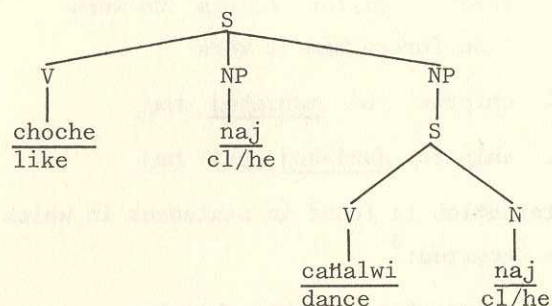
The same alternation is found in sentences in which Reflexivization has occurred:³

- (26) a. chincuytze sajchoj hin ba
I teach to play myself
'I teach myself how to play'
- b. chincuytze hin ba sajchoj

The infinitives may "float" only in causative sentences. They may not in sentences in which the main verbs are verbs of movement or desire. Infinitive Float occurs in transitive constructions in which the infinitive verb corresponds to a sentence complement and is not dominated by an NP node. The structure of the two types of complementation with the transitive verbs of causation (27) and desire (28) are contrasted below:



(28)



When the infinitival clause is a sentential object, there is not more word order scrambling between the infinitive object and the subject NP than there is between the nominal object and the subject NP of a simplex sentence.

4. EQUI-NP DELETION OF SUBJECTS OF INTRANSITIVE VERBS

4.1. Restriction to Subjects of Intransitive Verbs

Equi-NP Deletion is restricted to subjects of intransitive verbs. Subjects of transitive verbs cannot be deleted and always appear in aspectless embedded clauses:

(29) a. ch-in to hach hin-col-o'
asp-A1 go A2 E1-help-fut
'I go to help you'

b. *ch-in to col-o' hach
asp-A1 go help-fut A2
'I go to help you'

c. *ch-in to hach col-o'
asp-A1 go A2 help-fut
'I go to help you'

There is not a form of transitive infinitive inflected for an object absolutive alone, as shown in *(29b) and *(29c). Sentence *(29b) illustrates the position in which the absolutive case marker would be expected in the absence of an aspect

and an ergative marker in the clause. Sentence *(29c) shows that no matter where the absolutive is positioned the lack of ergative case marker in the complement sentence renders the sentence ungrammatical. Other examples of transitive embeddings with verbs of desire and movement follow.

(30) x- \emptyset -w-a' t-(y)-et w-anma hach w-il-a'
asp-A3-E1-give aug^t-E3-to E1-heart A3-E1-see-fut
'I felt like seeing you'

(31) s-kan ha-c'ul ha-lo-b no' chibe
E3-want E2-stomach E2-eat-fut cl/the meat
'you want to eat the meat'

(32) x- \emptyset -'apni ix hach s-tohla
asp-A3-arrive cl/she A2 E3-pay
'she arrived (there) to pay you'

(33) ch- \emptyset -(y)-oche naj \emptyset s-watx'e- hun-tu'
asp-A3-E3-like cl/he A3 E3-make-fut one-that
'he likes to make that'

The same restriction on the deletion of subjects of transitive verbs holds with the causative construction in which the transitive complement sentences are also of the aspectless embedded type:

(34) ch-oH s-chej ya' hach cu-tzaba an
asp-A1pl E3-orders cl/he A2 E1pl-grab 1p
'he orders us to grab you'

(35) x- \emptyset -(y)-iptze naj ix hin s-col-o'
asp-A3-E3-force cl/he cl/her A1 E3-help-fut
'he forced her to help me'

The absence of the subject NP of the embedded verb in the surface structure of examples (32), (33), and (35) is due to the surface rule of Noun Classifier Deletion which does not affect the corresponding case marker.

4.2. A Restriction on CS#2

The restriction mentioned above cannot refer to the case of the subject, since all subjects take an ergative case marker in aspectless embedded clauses. The ergative case marking of the subject of an aspectless transitive verb is undistinguishable from the ergative marking of the subject of an aspectless intransitive one. Furthermore the rule is triggered by either the ergative subject of a verb of desire or the absolutive object of a verb of causation. The rule of Equi-NP Deletion however distinguishes between the two subjects marked for the same ergative case in embedding.

Neither does the restriction refer to the notion of an agent of an action, because the rule of Equi-NP Deletion can delete a non-agent subject of a passive when it is triggered by the object of a causative verb.

The restriction is a structural constraint on the aspectless embedded clause and not a constraint on the rule of Equi-NP Deletion itself. The constraint is that no deletion of an NP may occur in a transitive embedded clause. The Jacaltec infinitive verbs are bare forms which may not inflect for person, and the deletion of one of the two NPs by the rule of Equi-NP Deletion would leave a transitive verb with still one NP and one case marker to inflect.⁴

The restricted nature of the aspectless type of embedding was already mentioned in Chapter 8 Complement Sentences and Chapter 10 A Rule of Promotion, and is discussed again in Chapter 12 Manner Adverbial Sentences.

The constraint on the deletion of subjects of transitive verbs is specific to aspectless clauses. All movement and deletion rules--Clefting, Question, and Relative Deletion rules--apply freely to the subjects of finite transitive verbs removing both the lexical NP subject and its corresponding

ergative case marker. See Chapter 7 Disambiguation for a more complete discussion of these operations.

4.3. A Case of Backward Equi-NP Deletion

Verbs of movement with a transitive complement sentence sometimes appear in an auxiliary form, inflected for aspect but not for the agent subject NP.⁵ Fully inflected verbs of movement are contrasted with auxiliary forms in the pairs of examples below:

(36) a. caʔal ch-in to ø w-il-a'
dance asp-A1 go A3 E1-see-fut
'a dance I am going to see'

b. caʔal x-ø-to ø w-il-a'
dance asp-A3-go A3 E1-see-fut
'a dance I am going to see'

(37) a. ay hune' niman tzalalal ch-in hul
is one big happiness asp-A1 come
ø w-al-a' t-aw-et an
A3 E1-say-fut aug^t-E2-to 1p
'I come to tell you good news'

b. ay hune' niman tzalalal ch-ø-ul
is one big happiness asp-A3-come
ø w-al-a' t-aw-et an
A3 E1-say-fut aug^t-E2-to 1p
'I come to tell you good news'

(38) a. xc-oh ec' ø cu-came-' hunun niʔtej
asp-A1pl pass A3 E1pl-borrow-fut each little
nyalon bet ya'
plastic at cl/him
'we passed by his house to borrow a piece of
plastic for each of us'

- b. x- \emptyset -'ec' \emptyset cu-came-' hunun
 asp-A3-pass A3 E1pl-borrow-fut each
 ni χ tej naylor bet ya'
 little plastic at cl/him
 'we passed by his house to borrow a piece of
 plastic for each of us'

- (39) a. tzet ch-ach to \emptyset haw-u-b
 what asp-A2 go A3 E2-do-fut
 'what are you going to do'
 b. tzet x- \emptyset -to \emptyset haw-u-b
 what asp-A3-go A3 E2-do-fut
 'what are you going to do?'

An interesting characteristic of the auxiliary type of construction is that it is restricted to sentences in which the embedded verb is transitive. It does not occur with intransitive embedded verbs with which forward Equi-NP Deletion has to apply:

- (40) a. xc-in to sajchoj
 asp-A1 go to play
 'I went to play'
 b. *x- \emptyset -to hin-sajchi
 asp-A3-go E1-play
 'I went to play'

Thus, while the subjects of embedded transitive verbs may not be deleted by the rule of forward Equi-NP Deletion, they may themselves trigger the backward Equi-NP Deletion of the subjects of the main verbs, provided the verbs are intransitive movement verbs. This rule of Backward Equi-NP Deletion is optional. It is the only instance of a backward deletion in the language.⁶

5. CONCLUSIONS

There are three types of Equi-NP Deletion in the language. One is triggered by the upstairs subject of verbs of movement or verbs of desire and is obligatory. The agent NPs which trigger the deletion may only delete subject NPs which are also agent NPs--i.e., subjects of active verbs.

The second instance of Equi-NP Deletion is triggered by the upstairs object of verbs of causation. The deletion is then optional and may apply freely to derived subjects of passive verbs.

These two instances of forward Equi-NP Deletion are restricted to subjects of intransitive verbs. The restriction is one on the structure of transitive aspectless embedded clauses and does not depend on the particular case assigned to the coreferential NPs nor on the notion of agent.

A third instance of Equi-NP Deletion operates in complex sentences with a movement verb as main verb and a transitive complement sentence. This operation is an optional Backward Equi-NP Deletion and shows the undeletable embedded subject of a transitive to be the controller of the deletion of the subject of the main verb.

NOTES

1. -oj is the irrealis future suffix of intransitive verbs. It is used in negation of statives, in future of intransitive verbs, and as a marker of non-specificity of nouns. See Note 5 in Chapter 2 The Verb.
2. Both verbs of movement and verbs of desire which take infinitival intransitive complement sentences have a tense constraint on their transitive complement sentences, which must be marked with the future suffix -

-V'/-b. See Chapter 8, Section 1.2. Aspectless Embedded Complement Sentence: CS#2.

3. Reflexive clauses exhibit only one NP in the surface structure:

(a) xilwe sba naj
tried himself cl
'he tested himself'

(a')*xilwe naj sba (naj)
tried cl/he himself (cl)
'he tested himself'

(b) swatx'e sba ix
prepared herself cl
'she prepared herself'

(b')*swatx'e ix sba (ix)
prepared cl/she herself (cl)
'she prepared herself'

In these constructions Infinitive Float yields only two possible word orders—with the infinitive before or after the one reflexive NP.

4. There is one instance of transitive infinitive in the language. It is found in the collapsed causative construction in which both the subject and the object of an embedded transitive verb have been reassigned functions in relation to the main verb, leaving the transitive as a bare form not inflected for any case. See Chapter 13, Section 2.3. Transitive Embedded Clauses.
5. The verb of movement apni 'to arrive there' may not be used in the auxiliary form:

(a) tzet xcach ec'/xcach hul/xcach bey/
what you passed/you came/you walked/
xcach to hawila'
you went you see

'what did you pass/come/walk/go to see?'

(a') tzet x'ec/xul/xbey/xto hawila'
what passed by/came/walked/went you see
'what did you pass by/come/walk/go to see?'

(b) tzet xcach apni hawila'
what you arrived there you see
'what did you arrive there to see?'

(b')*tzet x'apni hawila'
what arrived there you see
'what did you arrive there to see?'

6. There is no backward deletion with either the rule of Pronominalization or the rule of Noun Classifier Deletion. See Chapter 4 Pronominalization and Chapter 5 Noun Classifier Deletion.

12. Manner Adverbial Sentences

Manner adverbial sentences are complex sentences headed by a manner adverbial predicate. In Section 1 an analysis of the internal structure of this higher predicate will reveal that it is composed of a predicative adjective or noun followed by a helping verb of manner. In Section 2 a parallel will be drawn between this action helping verb of manner -u and a stative helping verb of manner -eyi. A rule of Collapsing will be discussed in Section 3 to account for the presence of some manner adverbs in post-verbal position in a simplex sentence, and constraints on the structure of aspectless embedded clauses will be outlined in Section 4.

1. THE STRUCTURE OF MANNER ADVERBIAL SENTENCES

1.1. Manner Adverbial Sentences as Complex Sentences

In general, adverbs appear after the nucleus verb-subject-object. This is the case for adverbs of time and space:

- (1) x'apni naj pel (yet) ewi
 arrived cl Peter (when) yesterday
 'Peter arrived there yesterday'
- (2) xwil ix malin (bet) chinabul
 I saw cl Mary (at) Huehuetenango
 'I saw Mary in Huehuetenango'

Manner adverbial sentences exhibit a very different structure. The adverbial element appears in sentence initial position, and the verb of action that it predicates is in an embedded clause:

- (3) beh xu cu to jatut
 direct did we go our home
 'we went home directly'
- (4) c'ul xu stz'isni ix kap cami~~x~~e
 good did sew cl/she cl/the shirt
 'she sewed the shirt well'
- (5) tz'a'il xu skantzen ix te' cape
 burned did roast cl/she cl/the coffee
 'she roasted the coffee until it burned'
- (6) howal xu slahwi sajach
 fight did end game
 'the game ended in a fight'

The embedded clause is an aspectless embedded complement sentence which functions as a sentential subject. From the evidence of embedding it can be established that, in Jacalteco, manner adverbial sentences are complex sentences in which the manner adverbial constituent is the higher predicate.¹

1.2. Higher Predicate: Sentence Initial Constituent

The nature and function of the initial constituent will be established first. The sentence initial element is either an adjective or a noun.²

- (7) a. tz'op naj
 blind cl/he
 'he is blind'
- b. tz'op xu spitzc'a naj
 blind did was born cl/he
 'he was born blind'
- (8) a. kalom naj
 rich cl/he
 'he is rich'

- b. kalom xu smohyi naj
rich did marry cl/he
lit: he married richly
'he had an expensive wedding'
- (9) a. liʔan naj
standing up cl/he
'he is standing up'
- b. liʔan xu swa' naj
standing did eat cl/he
'he ate standing up'
- (10) a. hojan niʔtej unin
in line little children
'the children are in line'
- b. hojan xu yec' niʔtej unin yul caya
in line did pass little children in street
'the children went by in line in the street'
- (11) a. aʔ te' cape
medicine cl/the coffee
'coffee is like medicine'
- b. aʔ xu hawatx'en te' cape
medicine did you make cl/the coffee
'you made the coffee taste like medicine'
- (12) a. balam naj
tiger cl/he
'he is a tiger'
- b. balam xu yawi naj
tiger did call cl/he
'he roared like a tiger'

Both nouns and adjectives appear as bare stems, as they always do when they are stative predicates. While a noun in a nominal function may always be accompanied by a noun classifier, it may not be when it fulfills a predicative function.

Sentence (13) is an example of a noun classifier accompanying an object NP; sentence (14) shows that the classifier may not accompany a nominal predicate; sentence (15) shows that the initial nominal constituent of a manner adverbial sentence is also in a predicative function and does not take a classifier:

- (13) mach ʔwoche te' aʔ
not I like cl/the medicine
'I do not like the medicine'
- (14) a. aʔ te' cape
medicine cl/the coffee
'coffee is like medicine'
- b. *te' aʔ te' cape
cl/the medicine cl/the coffee
'coffee is like medicine'
- (15) a. aʔ xu hawatx'en te' cape
medicine did you make cl/the coffee
'you made the coffee taste like medicine'
- b. *te' aʔ xu hawatx'en te' cape
cl/the medicine did you make cl/the coffee
'you made the coffee taste like medicine'

Similarly, adjectives in adjectival predicates of simple sentences do not take suffixes or prepositions, as shown in examples (16) and (17); neither does the adjectival initial constituent of a manner adverbial sentence, as shown in (18) and (19):

- (16) a. c'oʔan naj
bent down cl/he
'he is/was bent down'
- b. *c'oʔan-il naj
bent down-suff cl/he
'he is/was bent down'

- (17) a. c'ul munil
good work
'the work is good'
- b. *yifl c'ul munil
in good work
'the work is good'
- (18) a. c'oŋan xu smunla naj
bent down did work cl/he
'he worked bent down'
- b. *c'oŋan-il xu smunla naj
bent down-suff did work cl/he
'he worked bent down'
- (19) a. c'ul xu scaŋalwi naj
good did dance cl/he
'he danced well'
- b. *yifl c'ul xu scaŋalwi naj
in good did dance cl/he
'he danced well'

Thus, adjectives and nouns in initial position in manner adverbial sentences are marked by position and form as adjectival and nominal predicates.

1.3. Higher Predicate: Verbal Form -u

1.3.0.

In sentence second position stands a verb form -u. The verb -u is cognate with the intransitive verb -u meaning 'to happen' and with the transitive verb -u meaning 'to do', which are both illustrated in the examples below:

- (20) a. tzet x-∅-u-hi
what asp-A3-happen-stem aug^t
'what happened?'

- b. x-∅-u caŋal
asp-A3-happen dance
'there was a dance'
- (21) a. tzet ch-∅-aw-u
what asp-A3-E2-do
'what are you doing?'
- b. munlahoj x-∅-w-u
to work asp-A3-E1-do
'I am working'

The expression "is cognate with" refers to the fact that it is not possible to assert at this point whether the -u form of the manner adverbial sentences is the transitive or the intransitive -u. -u is also "cognate with" the impersonal verb -u 'can, to be able to':

- (22) a. ch-∅-u w-u ∅ hin-watx'e-n hun-tu'
asp-A3-can E1-by A3 E1-make-suff one-that
'I can do that'
- b. mach ch-∅-u y-u naj
not asp-A3-can E3-by cl/he
lit: it is not possible by him
'he cannot'

1.3.1. The Form of -u

The verb form -u in the complex manner adverbial sentence is a peculiar form characterized by its idiosyncratic position and inflections. It is unusual for a verb both to be in second position and to be inflected for aspect. As a rule Jacalteco verbs are either inflected for aspect and are in sentence initial position or they are aspectless and follow a higher predicate.

Furthermore, -u takes an ergative as if it were inflected for the subject of a transitive. Although the presence of an ergative marker is not noticeable in the Jacaltenango dialect

in which morphophonemic rules apply between aspect marker and third person ergative to delete the -y- of the ergative, it is clear and audible in the dialect variant of the neighboring village, Concepción. In concepcionero Jacaltec, the complete aspect marker is not x- but ma- (or ∅), and the -y- of the third person ergative is retained:

(23) a. c'ul ma-y-u ha-caŋalwi
well asp-E3-vb E2-dance
'you danced well'

b. *c'ul ma-∅-hu ha-caŋalwi
well asp-A3-vb E2-dance
'you danced well'

The assignment of the ergative case marker of -u is unaccounted for by the rules of Case Marking. If the verb -u is taken to be the intransitive verb -u 'to happen', the Case Marking rules would predict the assignment of an absolutive case marker. If it is taken to be the transitive verb -u 'to do', the ergative is still unaccounted for by the rules of Case Marking, since only one NP follows -u and since an ergative must be assigned in the context of a finite verb followed by two NPs. A third alternative would be to consider the verb as an embedded verb and analyze the ergative marker as the ergative of subjects of embedded intransitives. However, only subjects of aspectless intransitives are assigned an ergative and -u is marked for aspect. Thus, whether -u is analyzed as an intransitive main verb, a transitive main verb, or an intransitive embedded verb, the rules of Case Marking will not account for its ergative inflection.

The verb -u is always in an impersonal third person, as shown by the ungrammaticality of examples *(24b) and *(25b) below:

(24) a. beh x-(y)-u hin-to w-atut
direct asp-E3-vb E1-go E1-home
'I went home directly'

b. *beh x-w-u hin-to w-atut
direct asp-E1-vb E1-go E1-home
'I went home directly'

(25) a. c'ul x-(y)-u ha-tzoteli
good asp-E3-vb E2-talk
'you talked well'

b. *c'ul x-aw-u ha-tzoteli
good asp-E2-vb E2-talk
'you talked well'

If -u is an impersonal verb, one would expect it to be an intransitive verb followed by a complement sentence. In this case the case marking expected to be marked on the verb would be an absolutive.

The peculiar behavior of the verb -u including its peculiar position, aspect marking, and case marking, identifies it as an exception to established rules of the language. Its oddity conforms to its role of "helping verb."³

1.3.2. Function of -u: A "Manner Verb"

This uncommon verbal form fulfills a clear function: its presence marks the sentence as a "manner adverbial sentence." There are no manner adverbs in Jacaltec, but the verb -u contributes the notion of manner. Adjectives and nouns together with the "manner verb" -u form a "manner adverbial predicate."

The presence of the manner verb -u distinguishes manner adverbial predicates from adjectival predicates, as shown in example (26):⁴

(26) a. c'ul cu cuyni abxubal
good we learn Jacaltec
'it is good that we learn Jacaltec'

- b. c'ul chu cu cuyni abxubal
 good do we learn Jacaltec
 'we are learning Jacaltec well'
 'we are good at learning Jacaltec'

The conclusion reached in this section is that -u is a helping verb of manner cliticized in sentence second position.

2. A STATIVE HELPING VERB OF MANNER: -eyi

2.1. -eyi as Helping Verb

A striking parallelism can be drawn between manner adverbial sentences with -u and stative sentences with -eyi.⁵

Like -u, -eyi is found in adjectival predicates (27), (28), and (29) and nominal predicates (30), (31), and (32):

- (27) tx'oj ye hun tu'
 badly is one that
 'that is badly made'
- (28) lihan ye ix
 standing up is cl/she
 'she is standing up'
- (29) c'olan ye no' hos
 round is cl/the egg
 'the egg has a round shape'
- (30) aŋ ye te' cape
 medicine is cl/the coffee
 'the coffee tastes like medicine'
- (31) ha' ye ha koye
 water is your dough
 'your dough is like water'
- (32) wacaŋ ye spixan camom xawila
 cow is its spirit dead you saw
 'the spirit of the dead that you saw was like a cow'

-eyi shares with -u the formal characteristics of being in second position and inflected with an ergative case marker. While -u was always inflected for a third person sentential NP, -eyi inflects for any of the three persons:

- (33) tx'oj y-e hin-c'ul
 bad E3-is E1-stomach
 'I am sick'

- (34) a. hanic haw-e-yi
 how E2-are-stem aug^t
 'how are you?'

- b. c'ulŋe w-e-yi
 good E1-am-stem aug^t
 'I am fine'

The verbal augment -(y)i clearly marks the verb -eyi as an intransitive. The ergative case marker could be either an idiosyncratic feature of the verb or the mark of the subject of an aspectless embedded verb.

2.2. -eyi as Verb of Manner

-eyi and -u fulfill the same semantic function. -eyi is a verb of manner which emphasizes the way something has been done or the state in which something is as a result of an action. The difference between a simple adjectival predicate and a manner adjectival predicate with -eyi is shown in the example below:

- (35) a. c'ul ix
 good cl/she
 'she is good' (she is a good person)
- b. c'ul ye ix
 good manner cl/she
 'she is fine' (she is in good health)

- (36) a. c'oŋan naj
bent cl/he
'he is bent down'
- b. c'oŋan ye naj
bent manner cl/he
'he is hunch-backed'
- (37) a. aŋ te' cape
medicine cl/the coffee
'coffee is like medicine'
- b. aŋ ye te' cape
medicine manner cl/the coffee
'the coffee tastes like medicine'

From the characteristics described above it can be concluded that -eyi, like -u, is a helping verb of manner.

2.3. -u and -eyi: An Active and a Stative Verb of Manner

The major difference between the use of -u and the use of -eyi resides in the discrepancy of aspect marking. While -u is always inflected for aspect, -eyi is always aspectless. This difference reflects the semantic context in which each is used. -u occurs in the environment of action verbs while -eyi occurs in stative and passive counterparts. The complementary distribution of the two verbs is illustrated in the pairs of sentences (38) and (39):

- (38) a. c'ulchan xu stz'ahni naj te'
beautiful did paint cl/he cl
ŋah tu'
house that
'he painted that house beautifully'
- b. c'ulchan xu stz'ahbanil te' ŋah tu'
beautiful did its painting cl house that
'the painting of that house was done beautifully'

- (39) a. cotxan xu swatx'en heb naj caya
twisted did make pl cl/they street
'they made the street in a twisted way'
- b. cotxan ye swatx'ebanil caya
twisted is its making street
(yu heb naj)
(by pl cl/they)
'the making of the street was done in a twisted way (by the men)'

Both verb forms can be found with the predicate raising constructions of directional verbs:⁶

- (40) a. tx'oj xu-coj echele yiŋ bitzab
bad did-put on picture on wall
'the picture was badly put on the wall'
- b. tx'oj ye-coj echele yiŋ bitzab
bad was-put on picture on wall
'the picture ended up badly put on the wall'

In the context of an action the helping verb -u carries the only indication of aspect of the whole sentence since the action verb itself is in an aspectless embedded form. The lack of aspect marker on the helping verb -eyi corresponds to the lack of aspect marking in all stative sentences.

2.4. Summary

Two helping verbs which are characterized by their idiosyncratic behavior were identified in the language. They were seen to share also the semantic function of providing the concept of manner. Both are cliticized to predicative adjectives or nouns to form with them adverbial predicates of manner.⁷ When the sentence is an active sentence and refers to the way an action is performed, the helping verb is -u which is marked for aspect. When the sentence is a stative sentence and refers to the way something is as a result of an action,

or the way something is temporarily, the helping verb is the aspectless -eyi. -u is an active helping verb of manner while -eyi is a stative helping verb of manner.

3. A RULE OF COLLAPSING

3.1. Simplex Manner Adverbial Sentences

Some of the complex manner adverbial sentences have an alternate simplex sentence structure. In the simplex sentence a finite action verb stands in sentence initial position, and the adjective or noun that was part of the higher predicate in complex sentences follows the nucleus verb-subject-object. The simplex sentence lacks the verb form -u. Examples of complex and simplex manner adverbial sentences are paired below:

(41) a. liŋan xu swa' naj
standing up did eat cl/he
'he ate standing up'

b. xwa' naj liŋanil
ate cl/he standing up
'he ate standing up'

c. *xwa' naj liŋan

d. *liŋanil xu swa' naj

e. *xu swa' naj liŋan(il)

(42) a. c'ul xu hin caŋalwi
good did I dance
'I danced well'

b. xcin caŋalwi yiŋ c'ul
I danced in good
'I danced well'

c. *xcin caŋalwi c'ul

d. *yiŋ c'ul xu hin caŋalwi

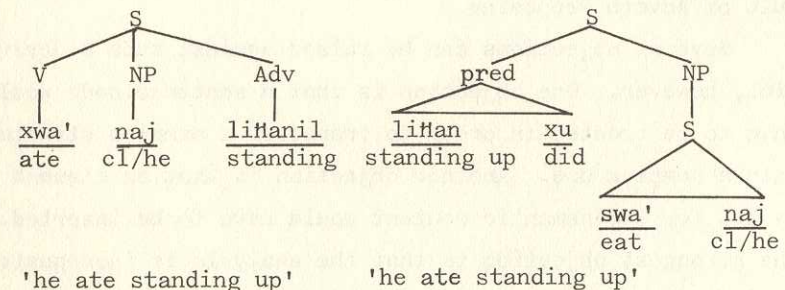
e. *xu hin caŋalwi (yiŋ) c'ul

In the complex sentences of (41a) and (42a) a predicative adjective stands in a bare form in sentence initial position. In the simplex sentences of (41b) and (42b) the adjective appears in sentence final position with a suffix or as an object of preposition. Examples *(41c), *(42c), *(41d) and *(42d) show that the other combinations are ungrammatical--predicative form in a simplex sentence and non-predicative form in a complex sentence. Sentences *(41c) and *(42c) show that the helping verb -u cannot by itself constitute the higher predicate of a manner adverbial sentence.

The structure of simplex and complex manner adverbial sentences correspond roughly to (43) and (44) below:

(43) Simplex Sentence

(44) Complex Sentence



Two hypotheses will be considered to account for the relation between the simplex manner adverbial construction (43) and the complex one (44): each one of the two structures will alternately be considered as the underlying form from which the other is derived.

3.2. Hypothesis #1: Complex Manner Adverbial Sentences are Derived From Simplex Manner Adverbial Sentences

This first hypothesis takes the simplex structure (43) to be the underlying structure and the complex structure (44) to be

the result of an operation of Adverb Preposing.

Adverb Preposing is a multiple operation in which:

- A) the manner adverb is preposed to sentence initial position;
- B) a helping verb -u is inserted;
- C) the verb of action is embedded.

In the preposing process the manner adverb loses all suffixation and becomes a predicative element. The helping verb -u is inserted transformationally to form a manner adverbial predicate with the preposed adjective (or noun). The main action verb becomes an aspectless embedded verb.

The main advantage of such a hypothesis is that it would treat all adverbs in the deep structure in a generalized way. Manner adverbs would originate in the same post-verbal position as time or locative adverbs and would later undergo a rule of Adverb Preposing.

Several objections can be raised against such a derivation, however. One objection is that a sentence node would have to be created in order to transform a simplex structure into a complex one. Another objection is that an element marked for its semantic content would have to be inserted.⁸ The strongest objection is that the analysis is inadequate with respect to the criteria of internal consistency. It deals differently with the two helping verbs since -u would be considered to be inserted transformationally, while -eyi would be postulated to be in the deep structure.

Provided that both -u and -eyi are the same type of helping verb, both should be treated either as being in the deep structure or as having been inserted transformationally. Since there is no reason to suspect that -eyi is introduced transformationally in stative sentences, its presence in the deep structure will be taken as an indication of the presence

of the other helping verb -u in the deep structure also, hence as an argument against Hypothesis #1 which postulates that -u is inserted transformationally.

3.3. Hypothesis #2: Simplex Manner Adverbial Sentences are Derived From Complex Manner Adverbial Sentences

In this hypothesis the simplex manner adverbial sentence (43) is derived from the complex manner adverbial sentence (44) by a Collapsing rule. The two clauses of the complex sentence are collapsed with the necessary readjustments to form a new simplex sentence. The three components of the Collapsing operation are:

- A) the action verb becomes the main finite verb;
- B) the helping verb of manner -u is deleted;
- C) the adjective (or noun) of the higher manner adverbial predicate takes a non-predicative function, form, and position.

The major readjustments involve the co-occurrence of two predicates in the collapsed simplex structure. The action verb which was embedded in the complex structure becomes the main finite verb, and the higher manner adverbial predicate of the complex sentence must be reassigned a new function. When the predicative adjective (or noun) is reassigned a non-predicative function it takes the mark of an oblique constituent, either a suffix or a preposition, and moves to the sentence final position of oblique constituents. The helping verb -u is lost in the collapsing process, which seems to follow from the fact that, unlike adjectives and nouns, -u cannot take an alternative non-predicative form.

The output of the rule of Collapsing is a simplex sentence similar to other simplex adverbial sentences, such as:

- (45) mach xwa' naj yiH chuman
not ate cl/he in noon
'he did not eat at noon'
- (46) oxox cetzal yiH hunun te' tx'at
three each quetzales for each cl bed
'it costs three quetzales for each bed'
- (47) *tzotel ix yiH abxubal
talks cl/she in Jacaltec
'she talks in Jacaltec'
- (48) mach *munla naj yiH tx'ihal
not works cl/he in enough
'he does not work enough'

The rule of Collapsing is preferable to the rule of Ad-verb Preposing presented in Section 3.2. above because it provides a common treatment of both helping verbs by postulating their presence in the deep structure in which they are semantic markers of manner. Collapsing is also a more common process since it simplifies rather than creates a complex structure. The causative Clause Union is another operation in Jacaltec which involves a collapsing process comparable to the Collapsing rule of manner adverbial sentences. It will be discussed in Chapter 13 Causative Constructions.

4. CONSTRAINTS ON THE STRUCTURE OF CS#2

4.1. Constraint on Embedded Manner Adverbial Sentences

Collapsing is optional when the manner adverbial predicate is the highest predicate of the sentence, as in examples (41) and (42) above, but it becomes obligatory when the whole manner adverbial sentence is itself embedded.⁹ Even if the collapsed structure by itself is somewhat marginal as shown in *(49b), it becomes the only grammatical form of embedded aspectless manner adverbial sentences, as shown in *(49c) and (49d):

- (49) a. cow c'ul xu ha cañalwi
very good did you dance
'you danced very well'
- b. ?chach cañalwi yiH cow c'ul
you dance in very good
'you danced very well'
- c. *xcin tzala cow c'ul xu ha cañalwi
I rejoiced very good did you dance
'I rejoiced that you danced very well'
- d. xcin tzala ha cañalwi yiH cow c'ul
I rejoiced you dance in very good
'I rejoiced that you danced very well'

Additional examples of obligatory collapsing are provided in (50) and (51):¹⁰

- (50) a. xwiptze naj tzoteloj liñanil
I forced cl/him to talk standing up
'I forced him to talk standing up'
- b. *xwiptze naj liñan xu stzoteli
I forced cl/him standing up did he talk
'I forced him to talk standing up'
- (51) a. xawilwe hawatx'en te' cape añil
you tried you make cl/the coffee medicine
'you tried to make the coffee taste like medicine'
- b. *xawilwe añe xu hawatx'en
you tried medicine did you make
te' cape
cl/the coffee
'you tried to make the coffee taste like medicine'

The obligatory nature of Collapsing in aspectless embedded clauses is to be considered in a broader perspective than the one of manner adverbial sentences. Other facts of the

language seem to indicate that the behavior of embedded manner adverbial sentences is to be interpreted as reflecting a restriction on the structure of aspectless complement sentences rather than as a condition on the rule of Collapsing. The existence of such a restriction is manifest in two other constructions involving embedded time adverbial sentences and embedded intransitive aspectual sentences.

4.2. Constraint on Embedded Time Adverbial Sentences

In a construction with the aspectual verb ichi 'to begin' and a time adverb, the time adverb precedes the aspectual ichi, which is then sometimes not inflected for aspect. The presence of the time expression in sentence initial position is mandatory. This time adverbial construction is different from the manner adverbial one in that it shows no embedding of the main verb ichi and no helping verb. Sentence (52) is an example of a time adverbial construction:

- (52) a. sab/payxa ichi hin munlayi
 early/a while ago begin I work
 'I began to work early/a while ago'
- b. *xcin ichi hin munlayi sab/payxa
 I began I work early/a while ago
 'I began to work early/a while ago'

However, when a sentence like (52a) is embedded under a main verb requiring an aspectless complement sentence, the time adverbs may not appear in sentence initial position and must be postposed:

- (53) a. *xwilwe sab/payxa wichenco
 I tried early/a while ago I begin
 hin munlayi
 I work
 'I tried to begin to work early/a while ago'

- b. xwilwe wichenco
 I tried I begin I work sab/payxa
 early/a while ago
 'I tried to begin to work early/a while ago'

The restriction that time adverbs not appear in clause initial position in embedding applies specifically in aspectless embedded clauses and not in finite embedded clauses. This is parallel to the restriction that manner adverbial sentences be collapsed specifically in aspectless embeddings and not in finite embeddings. The absence of restriction in the finite embeddings of relative clauses and CS#1 is shown in examples (54) and (55):

- (54) a. wohtaj naj c'ul xu scattalwi
 I know cl/him well did he dance
 'I know the man who danced well'
- b. pet x'apni naj beh xu stoyi
 immediately arrived cl/he direct did he go
 'the man who went directly arrived immediately'
- c. mat wohtajoj naj sab ichi smunlayi
 not I know cl/him early begin he work
 'I don't know the man who began to work early'
- (55) a. xbinayi chubil c'ul xu
 was mentioned that good did
 scattalwi naj
 dance cl/he
 'it was mentioned that he danced well'
- b. spojbacoj anma chubil c'ul xu ha tzoteli
 announce people that good did you speak
 'people announced that you spoke well'
- c. xbinayi chubil sab xcach ichicoj
 was mentioned that early you began
 ha munlayi
 you work
 'it was mentioned that you began to work early'

- d. spojbackoj anma chubil sab x'ichi
 announce people that early began
 naj sajchi
 cl/he play

'people announced that he began to play early'

In the case of the obligatory collapsing of manner adverbial sentences and postposing of time adverbs, a first restriction on the structure of aspectless embedded clauses appears to be that the aspectless verb must be in clause initial position.

4.3. Constraint on Embedded Intransitive Aspectuals

The third construction of the language which provides an indication that the structure of aspectless embedded clauses is subject to restrictions involves the application of the rule of Promotion which derives sentence (56b) from sentence (56a):

- (56) a. x-Ø-'ichi ha-munlayi
 asp-A3-begin E2-work
 'you began to work'
 b. xc-ach ichi ha-munlayi
 asp-A2 begin E2-work
 'you began to work'

The promotion rule consists of providing the upper, impersonal aspectual verb with a copy of the animate subject of the embedded verb. For a complete discussion of this rule, see Chapter 10 A Promotion Rule.

The rule is optional when the aspectual verb is the main verb as in (56b) above, but it becomes obligatory when the aspectual verb is itself embedded, as in (57a) below:

- (57) a. xc-ach y-iptze naj ha-tuci ha-bey
 asp-A2 E3-oblige cl/he E2-quit E2-go
 yulaj finca
 to plantation
 'he forced you to quit going to the plantation'
 b. *xc-ach y-iptze naj s-tuci ha-bey
 asp-A2 E3-force cl/he E3-quit E2-go
 yulaj finca
 to plantation
 'he forced you to quit going to the plantation'

On the basis of the obligatory application of the Promotion rule, there appears to be a second restriction on the structure of aspectless embedded clauses to the effect that the aspectless verb of the embedded clause always is inflected for a nominal subject.

4.4. Restriction on Equi-NP Deletion

A third restriction on aspectless embedded clauses may be identified. It involves the rule of Equi-NP Deletion which applies only to subjects of intransitive verbs. Aspectless embedded verbs are therefore either inflected for all their NPs or for none; there is no Equi-NP Deletion of the subject of a transitive verb which would leave the verb with only the case marker of the object. See Chapter 11 Equi-NP Deletion.

4.5. Summary

The obligatory nature of the rule of Collapsing in embedded manner adverbial sentences thus must be placed in the perspective of the restricted nature of the structure of aspectless embedded clauses. The three restrictions noted were as follows:

- A) no constituent may precede the aspectless verb in the clause;
 B) the embedded verb may not be an impersonal verb;

c) it may not be inflected for only the object.

5. CONCLUSIONS

Manner adverbial sentences in Jacaltec are complex sentences composed of a manner adverbial predicate followed by an aspectless embedded complement sentence. The manner adverbial predicate is itself a compound structure containing a predicative adjective or noun accompanied by a helping verb of manner. There are no manner adverbs per se in Jacaltec but there are two manner helping verbs -u and -eyi characterized by idiosyncratic behavior (clitic position and ergative marker on intransitive). Of the two verbs of manner one is used in active context and is inflected for aspect, the other is used in the stative counterparts and is aspectless.

Some complex manner adverbial sentences may undergo Collapsing into a simplex sentence with subsequent readjustments. Collapsing is obligatory if the whole manner adverbial sentence is itself embedded. It was argued that the obligatory nature of Collapsing in embedded manner adverbial sentences did not reflect a condition on the rule itself but rather a restriction on the structure of aspectless complement sentences.

NOTES

1. The manner adverbial construction is echoed in indirect questions and indefinite answers:

(a) skambe ya' tzet xu japni
 asked cl/he how did we arrive
 'he asked how we arrived there' (how the trip was)

(b) hactu' chu swatx'elax ixim bitx
 that way did are made cl/the tamales
 'that is how the tamales are prepared'

2. Some adverbs of time can be used as adverbs of manner when they express the repetitive way something is done:

(a) hunun tz'ayic xu yapni naj
 every day vb arrive cl/he
 sc'atañ ix
 at cl/her
 'every day he went to see her'

3. This phenomenon of the -u helping verb is reminiscent of the English do-support which was originally discussed in the literature by Chomsky (1957) and Klima (1964) and later by Ross (1971) and Anderson (1972).
4. However, the verbal form chu (incompletive)/xu (completive) may be absent from the surface structure. The frequency of deletion varies with the aspect of the verb. The deletion of the incompletive chu is very common. It yields the more commonly heard sentence (b) below:

(a) liñan chu swa' naj
 standing up did eat cl/he
 'he eats standing up'

(b) liñan swa' naj
 standing up eat cl/he
 'he eats standing up'

The deletion may also yield ambiguous sentences when the initial constituent of the sentence is an adjective:

(c) c'ul cu cunyi abxubal
 good we learn Jacaltec
 'it is good that we learn Jacaltec'
 'we are good at learning Jacaltec'

The deletion of the completive xu is not as systematic as the deletion of the incompletive chu. Thus, while sentences with chu are seldom heard, sentences with the completive xu are more common. This is the main reason why most examples in this chapter are given in the completive aspect. Both sentences (d) and (e) are equally common:

(d) beh xu ha to hawatut
direct did you go your house
'you went home directly'

(e) beh ha to hawatut
direct you go your house
'you went home directly'

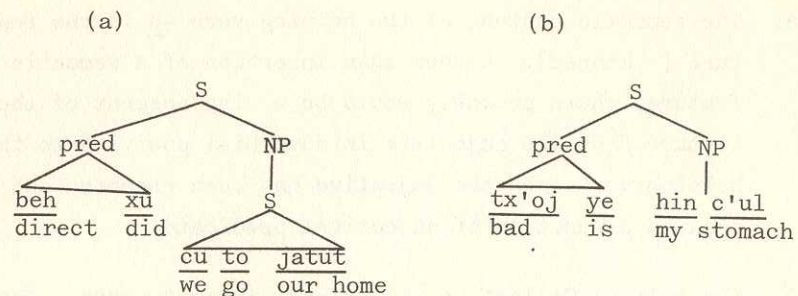
5. See Chapter 1, Section 4. Copulas for a presentation of the copula of manner -eyi. -eyi in clause or sentence final position alternates with -e followed by a subject.

6. Directional verbs undergo predicate raising and appear affixed to main verbs of movement:

(a) xelka-toj naj ch'en melyu
stole-away cl/he cl/the money
'he stole the money'

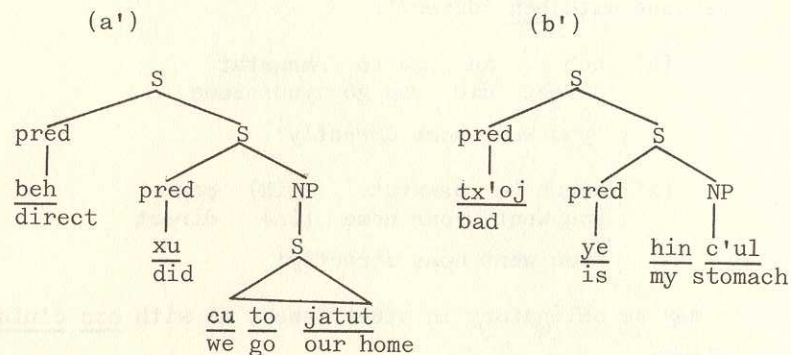
(b) xinteni-c'oj naj
I pushed-to the side cl/him
'I pushed him to the side'

7. It is clear that adjectives (or nouns) and helping verbs represent the higher predicates of manner adverbial sentences. However, the question remains of whether adjectives (or nouns) and helping verbs are part of the same predicative constituent as in (a) and (b) or whether they constitute two levels of predicate as in (a') and (b'):



'we went home directly'

'I am sick'



'we went home directly'

'I am sick'

In (a') and (b') the helping verbs are embedded verbs. This fact could account partly for the ergative marking they receive. But the case is convincing only with -eyi, which is aspectless. The presence of aspect marking on the verb -u would require rewriting the rule of case marking. In (a) and (b) the adjectives and helping verbs are treated as a single constituent in which the helping verb functions as an auxiliary type verb. This analysis seems to be the correct one at least for the manner stative sentences with -eyi. In the absence of decisive argument to the contrary, it will be considered the correct one for the constructions with -u also.

8. The semantic content of the helping verb -u is the feature [+manner]. Rather than insertion of a semantic feature, there probably would be a displacement of the feature from the adjective in adverbial position to the helping verb once the adjective has been preposed and has assumed a function of adjectival predicate.

9. The rule of Collapsing is optional in most cases. However, it is not possible with certain adjectives, as is the case with beh 'direct':

(a) beh xu ha to hawatut
direct did you go your home
'you went home directly'

(a') *xcach to hawatut (yih) beh
you went your home (in) direct
'you went home directly'

It may be obligatory in other cases, as with nan c'ulal 'slow':

(b) *nan c'ulal xu hin c'atalwi
slow did I dance
'I danced slowly'

(b') xcin c'atalwi nan c'ulal
I danced slow
'I danced slowly'

10. If the manner adverbial sentence is not collapsible, the alternative complement sentence with complementizer is used:

(a) xcin tzala ta beh xu
I rejoiced that direct did
ha to hawatut
you go your home
'I rejoiced that you went home directly'

(b) xwilwe ta beh xu hin to watut
I tried that direct did I go my home
'I tried to go home directly'

If a verb can take both types of complement sentences, the preferred sentence will be the one with CS#1 or an adverbial sentence where collapsing need not apply:

(c) xtzala naj sca'atalwi naj yih c'ul
rejoiced cl/he dance cl/he in good
'he rejoiced to have danced well'

(d) xtzala naj haxca c'ul xu sca'atalwi
rejoiced cl/he because good did he dance
'he rejoiced because he danced well'

(e) *xwiptze naj tzoteloj lihanil
I oblige cl/him to talk standing up
'I oblige him to talk standing up'

(f) *xwiptze naj ta lihan chu
I oblige cl/him that standing up does
stzotel naj
talk cl/he
(I oblige him that he talk standing up)

With the verb hala 'to say' which often appears in Inversion construction, the only possible manner adverbial sentence is the non-collapsed one:

(g) c'ul xu ha c'atalwi yalni naj
good did you dance say cl/he
'he said that you danced well'

(h) beh xu ha to hawatut yalni naj
direct did you go your home say cl/he
'he said that you went home directly'

See Chapter 8 Complement Sentences for the phenomenon of Inversion.

11. The construction with the aspectual ichi 'to begin' and the time adverbial expressions is different from that of manner adverbial sentences in that there is no embedding of the main verb ichi and no helping verb.

13. Causative Constructions

The word 'causative' is used here in a broad sense and encompasses two types of constructions found with verbs of causation--complement causatives which are complex structures with complement sentences, and predicate raising causatives which are collapsed simplex sentences.

The complement sentence construction of a verb of causation like iptze 'to oblige, to force' is examined in Section 1. A contrast is made in Section 2 with the predicate raising construction of the verb a'a 'to make'. This study provides new data on predicate raising causatives which are interesting because of the VSO word order of Jacaltec and its independent causative verb. With these additional data, a new universal rule of Clause Union is formulated to account for the derivation of such causative sentences.¹

Section 3 presents an indirect causative construction which also uses the verb a'a 'to make', but in which Clause Union is limited to causative sentences with intransitive embedded clauses. In the course of the discussion on the status and origin of the surface structure subject of such sentences, a rule of Advancement is proposed to derive the subject from an instrumental type of prepositional phrase.

1. COMPLEMENT CAUSATIVES

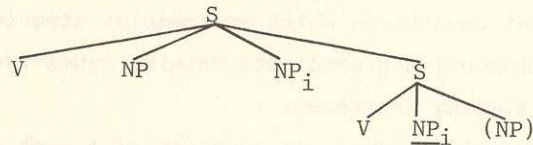
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All verbs of causation take aspectless complement sentences. This section presents the verb iptze 'to oblige, to force' as an example of this group of verbs.² A rule of Infinitive Float which accounts for the variation in word order will be

recalled.

In the deep structure of the causative construction with iptze the embedded clause is a sentence complement, and the transitive verb of causation takes an animate NP for a subject and an object, as is shown in tree diagram (1):³

(1)



That the coreferential NPs co-occur in surface structure supports the postulate of two animate NPs in the main clause.

1.1. Transitive Embedded Clauses

If the embedded clause is transitive, the construction is of the aspectless embedded type. The only rule to apply is the late rule of Noun Classifier Deletion:

- (2) a. *ch-∅-(y)-iptze naj ix_i
 asp-A3-E3-force cl/he cl/her
 hach s-mak-ni ix_i
 A2 E3-hit-suff cl/she
 'he forces her to hit you'

- b. ch-∅-(y)-iptze naj ix
 asp-A3-E3-force cl/he cl/her
 hach s-mak-ni ----
 A2 E3-hit-suff N Cl Del
 'he forces her to hit you'

1.2. Intransitive Embedded Clauses

If the embedded clause is intransitive, Equi-NP Deletion applies to its subject and the verb turns into an infinitive, as was shown in Chapter 11 Equi-NP Deletion:

- (3) ch-∅-(y)-iptze naj ix munlahoj
 asp-A3-E3-force cl/he cl/her to work
 'he forces her to work'
- (4) ch-ach w-iptze caħalwoj
 asp-A2 E1-force to dance
 'I force you to dance'

The rule of Equi-NP Deletion is not obligatory, so there is a secondary construction with an embedded complement sentence:

- (5) xc-ach w-iptze wa'oj/ha-wa'i
 asp-A2 E1-force to eat/E2-eat
 'I forced you to eat'
- (6) x-∅-(y)-iptze naj ix caħalwoj/s-caħalwi
 asp-A3-E3-force cl/he cl/her to dance/E3-dance
 'he forced her to dance'

The embedded intransitive may be a passive verb:

- (7) xc-ach w-iptze il-lax-øj y-u
 asp-A2 E1-force see-PASS-fut E3-by
 ya' doctor
 cl/the doctor
 'I forced you to be seen by the doctor'

Passive may also occur in the main clause (8) or simultaneously in the upper and lower clauses (9):

- (8) xc-ach iptze-lax munlahoj
 asp-A2 force-PASS to work
 'you were forced to work'
- (9) xc-ach iptze-lax aħte-lax-øj
 asp-A2 force-PASS cure-PASS-fut
 'you were forced to be cured'

Sentences with intransitive infinitives are found in three different word orders:

(10) a. chiptze ya' naj munlahoj
 forces cl/he cl/him to work

'he forces him to work'

b. chiptze ya' munlahoj naj

c. chiptze munlahoj ya' naj

The different positions of the infinitive munlahoj are the result of the operation of Infinitive Float discussed in Chapter 11, Section 3.4. Infinitive Float.

1.3. Summary

Complement causatives are complex sentences which behave like other complex sentences with aspectless complement sentences. A rule of Equi-NP Deletion deletes the subject of an intransitive embedded verb, after which the infinitival form of the embedded verb may "float" to the left of its original position while no rule of Equi-NP Deletion applies in transitive embedded clauses. Passive was shown to apply freely to both main and embedded verb.

2. PREDICATE RAISING CONSTRUCTION

2.0.

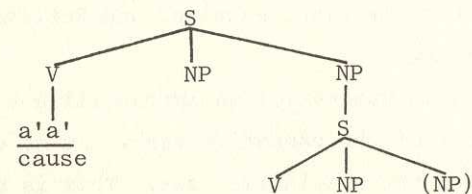
The other type of Jacaltec causative construction is the predicate raising sentence containing the causative verb a'a' 'to make'.⁴ As will be shown, this causative construction exhibits the properties of simplex sentences, like the predicate raising constructions analyzed by Aissen (1974). In order to account for the collapsing process which produces the Jacaltec simplex sentence a new analysis of predicate raising constructions will be proposed in the form of a Clause Union rule. This rule will offer a universal analysis of collapsed causative constructions.

2.1. Bi-sentential Deep Structure

The deep structure postulated for the causative construction

with a'a' is shown in tree diagram (11):

(11)



The transitive causative verb a'a' takes a sentential object. Syntactic arguments for postulating an underlying bi-sentential structure for the causative sentences with a'a' are difficult to find in Jacaltec, but the bi-sentential nature of sentences with two verbs of action is probably not a controversial point.

2.2. Intransitive Embedded Clauses

2.2.1. Word Order

The intransitive embedded verb is in the infinitive form and stands between the subject of the main verb and its own deep structure subject, as shown in pattern (12a) and sentence (12b):

(12) a. [V NP V NP]

b. cha' ix xewoj naj
 makes cl/she to rest cl/him

'she makes him rest'

There is no reordering of the constituents. The causative verb a'a' is an independent finite verb; it is neither an affix on the intransitive verb nor an auxiliary type of verb. The word order [V NP V NP] does not conform to the postulated word order of predicate raising constructions [V V NP NP] in which the verbs are contiguous.

2.2.2. The Structure of a Simplex Sentence

Predicate raising sentences have the structure of a simplex

sentence. The arguments supporting the simplex structure analysis are based on the application of the three clause bounded rules of Case Marking, Passive, and Reflexivization.

A. Case Marking

The embedded subject of an intransitive verb becomes the object of the causative verb. It is consequently marked for the absolutive case. This is obvious when it is a first or second person absolutive case marker, as in examples (13) and (14):

(13) ch-ach w-a' xewoj
asp-A2 E1-make to rest
'I make you rest'

(14) ch-oh y-a' naj munlahoj
asp-A1pl E3-make cl/he to work
'he makes us work'

B. Passive

The embedded subject of an intransitive may become the subject of a passive causative verb:

(15) ch-Ø-a-lax xewoj naj
asp-A3-make-PASS to rest cl/he
'he is made to rest'

(16) ch-ach a-lax munlahoj
asp-A2 make-PASS to work
'you are made to work'

C. Reflexivization

Reflexivization is a clause-bounded rule in Jacalteco. If the embedded subject of an intransitive is coreferential with the subject of the causative verb, Reflexivization applies, showing that the two NPs have become clause mates, as in examples (17) and (18):

(17) cha' camoj sba naj
makes to die himself cl
'he lets himself die'

(18) chawa' camoj ha ba
you make to die yourself
'you let yourself die'

Sentences with reflexives take the permissive reading of 'let'.

2.2.3. Not a Subject-to-Object Raising Rule

The three features discussed above—Case Marking, Passive, and Reflexivization—could also support the alternative hypothesis of a Subject-to-Object Raising rule. However, an argument based on the word order of the derived sentence can be made against the latter hypothesis.

If the raising operation only raised the lower subject NP, one would expect the raised NP to appear precisely in the object position of that clause. The expected word order would be [V NP NP V]. However, this is not the word order of the causative sentence. The object NP consistently appears after the lower verb. It remains in its underlying position, in which it functions as the object (19), passive subject (20), or reflexive object (21) of the main causative verb:

(19) a. cha' ix xewoj naj
makes cl/she to rest cl/him
'she makes him rest'

b. *cha' ix naj xewoj

(20) a. ch'alax xewoj naj
is made to rest cl/he
'he is made to rest'

b. *ch'alax naj xewoj

- (21) a. cha' camoj sba naj
 makes to die himself cl
 'he lets himself die'

b. *cha' sba naj camoj

2.2.4. Secondary Word Order

Simplex causative sentences with an intransitive infinitive exhibit a secondary word order in which the infinitive appears next to the causative verb:

- (22) cha' xewoj ix naj
 makes to rest cl/she cl/him
 'she makes him rest'

Advocates of a predicate raising analysis would consider the word order [V V NP NP] of example (22) to be the primary one and the word order [V NP V NP] of example (19a) to be derived from it. This analysis would require postulating two movement rules of the verb. The first rule--the rule of Predicate Raising proper--would place the verb to the immediate right of the causative verb. A second rule of scrambling would later move the verb again, which would account for the alternative word order.

However the alternation of word order could be handled by the independently motivated rule of Infinitive Float which was described in Chapter 11, Section 3.4. Infinitive Float.

Another argument against postulating [V NP V NP] as the basic word order is the impossibility of analyzing the transitive counterpart of the causative construction as having undergone Predicate Raising, as will be discussed in subsection 2.3.2. below. Instead of one rule of Clause Union which would account for both constructions, two rules would have to be postulated--Predicate Raising for the intransitive construction and Clause Union for the transitive one.

It will therefore be assumed at this point that the basic

word order of causative sentences with a'a' is [V NP V NP] and that [V V NP NP] is a secondary order derived by the rule of leftward Infinitive Float.

2.2.5. An Additional Characteristic of Predicate Raising Constructions

In contrast to the complement causative constructions described in Section 1 in which Passive was seen to apply freely, there are no causative sentences with a'a' and a passive verb:⁵

- (23) a. xawa' maka' ha ba
 you made to hit yourself
 'you let yourself be hit'

b. *xawa' maklaxoj ha ba
 you made to be hit yourself

- (24) a. xa' maka' sba naj
 made to hit himself cl
 'he let himself be hit'

b. *xa' maklaxoj sba naj
 made to be hit himself cl

In sentences (23a) and (24a) the causative verb takes on the meaning of a concessive verb and is translated as 'let'. Although the meaning of the embedded clause is passive, the morphology of its verb is that of an active verb. These data on the Jacaltec causative construction provide an additional argument for the claim made by Aissen (1974) that the restriction on Passive in collapsed causative sentences is a universal one.

2.3. Transitive Embedded Clauses

2.3.1. Structural Characteristics

When a transitive clause is embedded under the causative verb a'a', the sentence has the following surface structure characteristics:

- A) the basic word order is [V NP V NP PP];
 B) the subject of the lower transitive verb is marked for an oblique case;
 C) the object of the lower transitive verb becomes the object of the causative verb;
 D) the transitive embedded verb is in an aspectless form.

Examples of such sentences are given below:

(25) a. chintx'ah xil kape
 I wash clothes
 'I wash the clothes'

b. xa' ix tx'aha' xil kape wet an
 made cl/she to wash clothes to me 1p
 'she made me wash the clothes'

(26) a. scoc'tze ix wixim
 grinds cl/she my corn
 'she grinds my corn'

b. xwa' coc'tze' wixim tet ix
 I made to grind my corn to cl/her
 'I make her grind my corn'

2.3.2. Word Order

As with embedded intransitive clauses, two word orders may be found. In the basic word order [V NP V NP PP] the two verbs do not stand next to each other, which is contrary to the claimed word order of predicate raising construction.

In the secondary word order the verbs are contiguous, in the pattern [V V NP NP PP]. Both word orders are given in examples (27):

(27) a. cha' ix' ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'

b. xa' ija' ix ya' tawet
 made to carry cl/she her water to you
 'she made you carry her water'

As was the case with the intransitive construction, the word order of sentence (27b), in which the subject NP of the causative verb intervenes between the two verbs, is taken as basic, and the word order alternation is analyzed as resulting from the existence of a rule of Infinitive Float.

The word order of the NPs corresponds to the word order of a simple sentence--S > O > IO--shown in example (28):

(28) xa' naj ch'en melyu tet ix
 gave cl/he cl/the money to cl/her
 S O IO
 'he gave the money to her'

2.3.3. The Subject of the Transitive Embedded Verb Goes to an Oblique Case

The subject of the embedded sentence is clearly not raised alone to the object position of the main verb, as shown by the ungrammaticality of sentences *(29a,b) below:

(29) a. *xc-ach y-a' ix ija' y-a'
 asp-A2 E3-make cl/she to carry E3-water
 'she made you carry her water'

b. *xc-ach y-a' ix Ø haw-ija' y-a'
 asp-A2 E3-make cl/she A3 E2-carry E3-water

Example *(29a) would be the output of a rule of object raising that would extract the embedded subject and turn it into the object of the main clause. Example *(29b) would be the output of a copying rule, which would provide the main causative verb with an object which would be a copy of the embedded subject. Instead, the embedded subject goes to an oblique case--it becomes the indirect object of the causative verb, and as such the object of the dative preposition -et 'to'. Examples of

the dative construction are provided in the simple sentences (30), (31), and (32):

(30) x-Ø-w-a' te' hum t-aw-et
asp-A3-E1-give cl/the book aug^t-E2-to

'I gave you the book'

(31) x-Ø-(y)-al ix s-kumal
asp-A3-E3-say cl/she E3-criticism

naj w-et an
cl E1-to 1p

'she said criticisms of him to me'

(32) x-Ø-s-ye naj cañal t-(y)-et
asp-A3-E3-show cl/he dance aug^t-E3-to

niñtej unin
small children

'he showed the dance to the children'

Examples of the embedded subject of a transitive becoming the object of the dative preposition were given in sentences (25b), (26b), and (28) above.

2.3.4. The Object of the Transitive Embedded Verb Becomes the Object of the Main Verb

The object of the embedded transitive verb keeps the function of object but becomes the object of the main verb.⁶ It then undergoes reflexivization if it is coreferential with the subject of the main causative verb:

(33) a. ch-in ha-maka
asp-A3 E2-hit
'you hit me'

b. x-Ø-w-a' maka' hin-ba t-aw-et
asp-A3-E1-make to hit E1-self aug^t-E2-to
lit: I make you hit myself
'I make you hit me'

Since Reflexivization is a clause bounded rule operating on

objects of simple sentences, the Reflexivization of sentence (33b) indicates that the causative sentence with 'a' is a simple sentence in which the old subject of maka 'hit' has become the object of the causative 'a' itself.

2.4. The Derivation of the Causative Construction: Clause Union

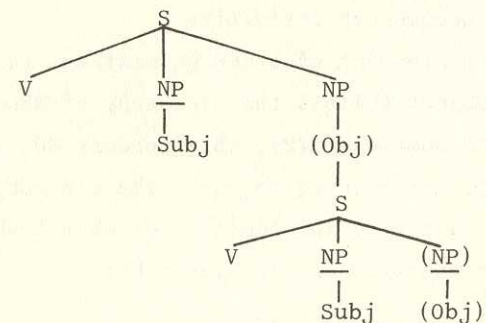
2.4.0.

As discussed in the previous section causative sentences with 'a' are characterized by their simplex sentence structure. Such a characteristic has been analyzed in the literature as the result of an operation of predicate raising (Aissen, 1974). The predicate raising analysis postulates that all embedded verbs are raised to the position next to the causative verb. Since in Jacaltec the embedded verb does not appear raised next to the causative verb a new analysis will be proposed in the form of a universal rule of Clause Union.

2.4.1. Clause Union

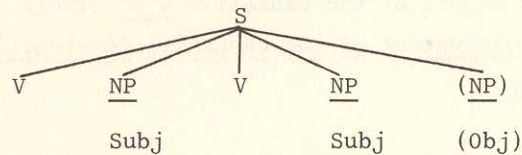
Clause Union consists of the collapsing of a complex structure into a simplex one. The operation joins two clauses already marked for grammatical functions. Before the collapsing operation the complex structure of the causative sentence is roughly as diagrammed below:

(34)



When the collapsing process of Clause Union applies to structure (34), it produces the derived structure (35):

(35)



The sentential object node is deleted, and the constituents of both clauses are directly dominated by the same sentence node.

Collapsing is followed by several Clause Union adjustments.

2.4.2. Clause Union Adjustments

If one makes the assumption that a simplex sentence may have only one finite verb, one subject, and one object, these adjustments may all be predicted. Adjustments are needed in the collapsed causative constructions because of the presence of two verbs and two subjects:

(36) V S *V *S (0)

The adjustments affect the second of the two constituents marked for the same function which are the starred constituents in pattern (36).⁷ In order to eliminate the doubling of the predicative function, the second verb loses all inflections and becomes an infinitive.

The assignment of a new grammatical relation to the embedded subject follows the Hierarchy of NPs presented by Keenan and Comrie (1972), which orders NPs as follows: subject > object > indirect object. The old subject of an intransitive is assigned the function of object which is the next available position in the Hierarchy:

(37) V S V *S----V S V O

It functions then as the object of the main verb. The old subject of a transitive is assigned the function of indirect object which is also the next available position in the hierarchy in the presence of an NP already marked for the function of object:

(38) V S V *S O----V S V O IO

The old object of an embedded transitive keeps its function of object but changes from being the object of the embedded verb to being the object of the causative verb.

2.4.3. Universal Operation of Clause Union

An alternative analysis of the Jacaltec phenomena may be proposed. The changes undergone by the subjects of the embedded clauses could alternatively be said to result from a restriction on the doubling of the same case marker in collapsed sentences.

Since all subjects--subjects of aspectless embedded clauses as well as subjects of intransitive main verbs--are assigned an ergative case marker, the co-occurrence of two ergative markers could be said to be the motivation for the readjustment:

(39) V NP V NP (NP)
erg *erg (abs)

Case assignment would have to have occurred before the rule of Clause Union.

Two arguments against this analysis can be formulated. First, the analysis would imply that case marking is a deep phenomenon in Jacaltec, which it is not. This was discussed in Chapter 3 Case Marking. Second, it would not recognize the universal character of the operation of Clause Union in causative sentences.

The readjustments which follow the collapsing of the

complex structure can all be accounted for naturally if they are formulated in terms of the doubling of functions. A formulation based on the clash of functions rather than of case markers makes two predictions. First, it predicts that not only the subject NP, but also the verb, will be affected. Second, it predicts to which function the old subjects are assigned: subjects of intransitives are universally reassigned the function of object, while subjects of transitives are universally reassigned the function of indirect object.

2.4.4. Word Order Principle⁸

After the collapsing of the causative complex structure, the old subject NPs of the embedded clause appear in the position which corresponds to their new function of either direct or indirect object. If a principle of word ordering is established, no rule of extraposition is necessary to account for the placement of the old subject of a transitive which fulfills in surface structure the new function of indirect object. The word order principle would have to be language specific and determine how constituents appear in surface structure.

The Jacaltec Word Order Principle is:

(40) V S O IO

The Word Order Principle makes two predictions. First, it implies that there can be only one NP for each function/position in a simple sentence. From this it follows automatically that readjustments are needed following the application of Clause Union to eliminate doubling of grammatical relations. Second, it accounts for the postposing of the old subject.

3. INDIRECT CAUSATIVE CONSTRUCTION

3.0.

The collapsed causative construction which was the topic of Section 2 is restricted to sentences in which the subject is a direct causative agent and the action caused a durative action. A different construction containing the causative verb a'a', an indirect agent, and a punctual action is described in this section.

3.1. Durative and Punctual Actions, Direct and Indirect Agents

The causative construction a'a' is used in the case of a direct agent causing somebody to perform an action. The action to be performed is a durative action--it requires time and physical effort. Examples of durative actions are:

- | | | |
|------|--------------------|----------------------------|
| (41) | i'o'cañ kalem | 'to sweep the garbage' |
| | i'o'tij si' | 'to bring back wood' |
| | ija' ha' | 'to carry water' |
| | tx'aho' xil kape | 'to wash clothes' |
| | sub munlabal | 'to clean pots' |
| | monte' niñtej unin | 'to take care of children' |

They contrast with punctual actions (42) and mental activities which require time (43):

- | | | |
|------|------------------|---------------------|
| (42) | a'a'coj boc wi'e | 'to put on a hat' |
| | tiyoxli tet anma | 'to thank people' |
| | peba te' pulta | 'to close the door' |
| | a'a'can munil | 'to quit the job' |

- | | | |
|------|--------------|--------------------|
| (43) | cuyu abxubal | 'to earn Jacaltec' |
|------|--------------|--------------------|

The agent of a causative verb may be direct or indirect. The following combinations of agent and action are found in Jacaltec--

A. direct agent, durative action

- | | |
|------|---------------------------------|
| (44) | *wa' ija' wa' tawet |
| | I make to carry my water to you |
| | 'I make you carry my water' |

B. indirect agent, punctual action

- (45) hin mam x'a'ani wacanoj hin munil
 my father made I leave my work
 'my father made me leave my work'
 'because of my father I left my work'

C. direct agent, punctual action:

- (46) schej naj hawanicoj ha boc wi'
 ordered cl/he you carry your hat
 'he made you wear your hat'
 'he ordered you to wear your hat'

There is no causative sentence with a'a' when the agent is a direct causative agent and the action is a punctual action. The causative construction used in this case is a complement causative with a verb of causation like chej 'to order', as shown in example (46).

3.2. Characteristics of Indirect Causative Constructions

3.2.0.

The indirect causative construction with the causative verb a'a' differs from the direct causative construction described in the previous section in the four ways listed below and expanded in the following subsections.

A) Agent (3.2.1)

The indirect agent is obligatorily preposed to the left of the whole sentence. The indirect causative agent may be an inanimate noun.

B) Causative Verb (3.2.2)

The verb lacks a subject case marker and is marked with the suffix -n(i).

C) Intransitive Embedded Clause (3.2.3)

If the lower clause is intransitive, it undergoes Clause Union: that is, the subject NP of the intransitive verb becomes the object of the main causative verb and is consequently marked for absolutive case.

However, the case marker appears either in object clitic position on the causative verb or between the two verbs.

D) Transitive Embedded Clause (3.2.4)

If the verb is transitive the embedded clause is a complement sentence of the type CS#2.

3.2.1. Agent

The fact that the indirect causative agent is obligatorily preposed is shown by the ungrammaticality of sentence *(47b):

- (47) a. hin mam x'a'ani wacanoj hin munil
 my father made I leave my work
 'my father made me leave my work'
 b. *xa' hin mam wacanoj hin munil
 made my father I leave my work
 'my father made me leave my work'

Sentence (47) means that the father did not make any request and could be unaware of his causing such an action to take place. He could be sick and require the presence of the speaker, so that the speaker has to stop working in order to take care of him. The sentence means literally 'because of my father I had to leave my work'.

The ungrammaticality of sentence *(47b) contrasts with the grammaticality of the direct causative construction (48a). Example (48b) is a clefted sentence in which the agent is simply emphasized:

- (48) a. xa' ix ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'
 b. ha' ix x'a'ani ija'
 cleft cl/she make to carry
 ya'
 her water
 'it is she who made you carry her water'

It is common to find inanimate nouns as indirect agents in the indirect causative construction:

- (49) skani x'a'ani hin elojtij yihtaj
noise made I come out outside
'the noise made me come out'
- (50) ka' x'a'ani hin canoj yul te' mah
heat made I stay in cl/the house
'the heat made me stay inside the house'
- (51) tzalalal x'a'ani hin okoj
happiness made I cry
'happiness made me cry'
- (52) xiwcilal chach a'ani cuycunuj
fear you made to shake
'fear made you shake'

In simple sentences direct inanimate agents may only be expressed in an agentive phrase as objects of the preposition -u 'by'. In the pairs of examples below, the use of the direct inanimate agent in a simple sentence (53a, 54a) is contrasted to the use of the indirect inanimate agent in a causative sentence (53b, 54b):

- (53) a. xtaj xil kape yu tz'ayic
dried clothes by sun
lit: the clothes dried by the sun
'the sun dried the clothes'
- b. tz'ayic x'a'ani tajoj xil kape
sun made to dry clothes
lit: the clothes dried because of the sun
'the sun made the clothes dry'
- (54) a. x'ay ixim awal yu cake
fell cl/the corn by wind
lit: the corn fell by the wind
'the wind knocked down the corn'

- b. cake x'a'ani-ayoj ixim awal
wind made-fall cl/the cornfield
lit: the corn fell because of the wind
'the wind made the corn fall down'

In examples (53a) and (54a) the sun and the wind are considered to be the direct agents causing the actions; in the causative sentences (53b) and (54b) they are treated as indirect causative agents.

3.2.2. Causative Verb

The causative verb of the indirect causative pattern always lacks the ergative marker corresponding to its subject. This absence is signaled by the appearance of the stem initial glottal stop and the complementary presence of the suffix -n(i), which results in the form x'a'ani.

3.2.3. Intransitive Embedded Clause

The complement sentence of the indirect causative verb undergoes Clause Union, as did the complement sentence of the direct causative construction. The lower verb appears in the infinitive, and the lower subject becomes the upper object marked for absolutive.

A characteristic of the indirect construction is that the object marker can be found in two different positions. It may be in object clitic position on the main causative verb or between the two verbs:

- (55) a. cake xcin a'ani ayojtij swi'
wind me(A1) made to come down its top
te' mah
cl/the house
'the wind made me come down from the roof'
- b. cake x'a'ani hin ayojtij swi' te' mah

(56) a. munil xcin a'ani toj chinabul
 work me(A1) made to go Huehuetenango
 'work made me go to Huehuetenango'

b. munil x'a'ani hin toj chinabul

The object case marker in sentences (55b) and (56b) has not been cliticized in the object clitic position after the aspect marker of the causative verb.

The fact that the absolutive case marker is allowed to remain behind the verb is at least partly due to the absence of an ergative case marker in the verb form. The A>E Ordering Constraint discussed in Chapter 3, Section 4. Case Agreement is respected. The alternation of absolutive placement in examples (55) and (56) affects only the case marker. The object NP itself remains in the same position:

(57) a. cake x'a'ani ayojtij naj swi'
 wind made to come down cl/him its top
 te' Mah
 cl/the house
 'the wind made him come down from the roof'

b. *cake x'a'ani naj ayojtij swi' te' Mah

3.2.4. Transitive Embedded Clause

A transitive embedded clause does not undergo Clause Union and remains as an aspectless embedded complement sentence. Example (58) shows the obligatory collapsing operation in a direct causative construction in contrast with the complex structure containing an aspectless embedded clause in the indirect causative example (59):

(58) a. xa' ix ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'

b. *xa ix hawija' ya'
 made cl/she you carry her water
 'she made you carry her water'

(59) a. *hin mi' x'a'ani cuyu' abxubal
 my mother made to learn Jacaltec
 wet an
 to me 1p

'my mother made me learn Jacaltec'

b. hin mi' x'a'ani hin cuyni abxubal
 my mother made I learn Jacaltec
 'my mother made me learn Jacaltec'

3.3. On the Subject of the Indirect Causative Construction

3.3.0.

In the absence of an NP between the causative verb a'a' and the second verb, the indirect causative agent preposed to the left of the whole sentence is the only NP which could be analyzed as the subject of the causative verb.

3.3.1. Like a Subject

The indirect causative agent shares with clefted subjects the absence of ergative case agreement on the verb which is complemented by the suffixation of -n(i):

(60) ha' ix x'ilni naj
 cleft cl/she saw cl/him
 'it is she who saw him'

(61) ha' naj xil ix
 cleft cl/him saw cl/she
 'it is him that she saw'

The correlated deletion of the ergative case marker and suffixation of -n(i) were discussed in Chapter 7 Disambiguation. They occur specifically when an operation of movement or deletion affects the subject of a transitive.

3.3.2. Unlike a Subject

In first and second person the indirect causative agent is unlike clefted subjects. Clefted first and second person are characterized by the absence of deletion of the ergative case marker and subsequent lack of suffixation of -n(i) on the verb:

- (62) a. hach x- \emptyset -a-watx'e hun-tu'
 you asp-A3-E2-make one that
 'it is you who made that'
- b. *hach x- \emptyset ---watx'e-n hun-tu'
 you asp-A3-DEL-make-suff one that
 'it is you who made that'

However, a sentence initial first or second person indirect agent is marked by the absence of the ergative subject marker and the presence of the suffix -n(i):

- (63) a. hayin x- \emptyset --'a'a-ni \emptyset s-cuy-ni
 I asp-A3-DEL-make-suff A3 E3-learn-suff
 naj abxubal
 cl/he Jacaltec
 'I made him learn Jacaltec'
 'because of me he learned Jacaltec'
- b. *hayin x- \emptyset -w-a' \emptyset s-cuy-ni
 I asp-A3-E1-make A3 E3-learn-suff
 naj abxubal
 cl/he Jacaltec
 'I made him learn Jacaltec'

Unlike other subjects of transitive verbs the indirect agent may be an inanimate NP. In Chapter 2, Section 3. Voices there was a discussion of the restriction on the animacy of subjects of transitive verbs. Example (55a) which shows an inanimate, indirect causative agent at the head of the sentence will be repeated here:

cake xcin a'ani ayojtij swi'
 wind me made to come down its top
 te' hah
 cl/the house
 'the wind made me come down from the roof'

3.3.3. An Advancement Rule⁹

The indirect agent of a causative sentence is not a deep structure subject of the causative verb a'a'. It is derived from an agentive prepositional phrase by a rule of Advancement. The derived subjects are marked by an idiosyncratic behavior which distinguishes them from the deep structure subjects.

The advancement of indirect agents in causative constructions is to be considered with the Advancement rule of instrumental objects of prepositions undergoing Question. The latter was discussed in Chapter 1, Section 3. Question. While instrumentals are objects of the preposition -u in declarative sentences, they appear as subjects of the transitive verbs when they are questioned:

- (64) a. xintzoc'ic'oj te' te' yu
 I cut out cl/the tree with
 ch'en machit
 cl/the machete
 'I cut the tree with a machete'
- b. *xtzoc'ic'oj ch'en machit te' te'
 cut out cl/the machete cl/the tree
 (the machete cut the tree)
- c. tzet xtzoc'nic'oj te' te' hawu
 what cut out cl/the tree by you
 (what cut the tree by you?)
 'what did you cut the tree with?'

In both the instrumental and the indirect causative construction the advanced NP which appears to the left of the

whole sentence as a surface structure subject NP may not conform to the selectional restrictions of transitive verbs, since both may be inanimate.¹⁰

4. CONCLUSIONS

Jacaltec has an independent causative verb a'a' which is neither an affix nor an auxiliary and which functions as a main finite verb. It is used in two different causative constructions, one in which a direct agent is the cause of a durative action requiring time and physical effort, and one in which an indirect agent is the cause of a punctual action or a mental activity.

In the context of the first construction a rule of Clause Union has been proposed to account for the collapsing of the complex bi-sentential causative sentence into a simplex sentence. The rule of Clause Union is a reformulation of the rule of Predicate Raising which has been discussed in the literature; it provides a universal treatment of causative constructions.

Clause Union joins two clauses in which NPs are already marked for grammatical functions. Once the sentence has been collapsed into a simplex sentence, readjustments eliminate the doubling of functions. The second of two constituents marked for the same grammatical function is assigned to a new function.

The adjustment of the old subjects of the embedded clause follows the universal hierarchy of NPs. The subject of an intransitive verb becomes an object, and the subject of a transitive verb becomes an indirect object due to the presence of a constituent already marked for the object function.

The NPs are reordered according to language specific Word Order Principles. In Jacaltec the order corresponds to

the universal hierarchy of NPs.

The embedded verb universally loses all inflections and becomes an infinitive. The reordering of the old embedded verb depends on the nature of the causative verb itself. In Jacaltec the causative verb a'a' is an independent and fully inflected verb, and the two verbs do not stand next to each other. A rule of Infinitive float may, however, move the infinitive to the right of the main causative verb.

In the context of the second construction a rule of Advancement has been proposed to account for the presence of a clefted NP expressing the indirect causative agent. The rule of Advancement consists of making a surface structure subject out of an object of preposition. The clefted NP clearly does not inherit many of the properties of a subject but it is the only NP candidate for the function of subject in the sentence. Such an Advancement rule is parallel to the Advancement rule which applies to an instrumental object of a preposition when it is questioned.

NOTES

1. The approach taken in this chapter follows Aissen's study of causatives (1974). In her analysis she considers mostly SVO (Spanish and French) and SOV languages (Turkish and Japanese) with just a mention of a VSO language (Maori). More important than the type of word order, Jacaltec offers an interesting example of a causative verb which is neither an affix (as in Turkish and Maori) nor an auxiliary type verb (as in French). No causative verb of an independent type is discussed by Aissen.

2. iptze 'to force' is morphologically composed of a noun and the causative derivational suffix -tze:

(a) caw ay y-ip naj
 very exist E3-strength cl
 'he is very strong'

(a') ip-tze
 strength-causative suffix
 'to force'

Some causative verbs are derived from adjectives:

(b) caj ha' ha'
 hot cl/the water
 'the water is hot'

(b') caj-tze
 not-causative suffix
 'to heat'

3. These sentence complements can optionally be introduced by the preposition yih, which is used in such a case as a complementizer. yih introduces indirect complements in simplex sentences with intransitive verbs:

(a) chin colwa y-iH hin-mi'
 asp-A1 help E3-to E1-mother
 'I help my mother'

(b) xc-ach y-iptze ix y-iH
 asp-A2 E3-force cl/she E3-to
 ha-caŋalwi boj
 E2-dance with
 'she forced you to dance with her'

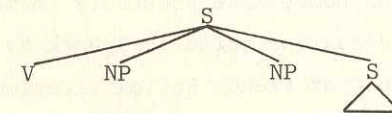
4. The verb a'a also means 'to give'. With this meaning it takes both inanimate and animate objects:

(a) xa' ix te' hum wet an
 gave cl/she cl/the book to me 1p
 'she gave the book to me'

(b) xcach ya' ha mam tet naj
 you he gave your father to cl/him
 'your father gave you to him'

Sentences with animate objects can further take an aspectless sentence complement:

(c)



Examples of the complex structure (c) with a transitive embedded clause (d), an intransitive embedded clause (e) and an object incorporation construction (f) are given below:

(d) xa' ix xo' stx'aha' xil kape
 gave cl/she cl/her she wash clothes
 'she gave her to wash the clothes'

(e) xcach ya' ix munlahoj tet ya'
 you she gave cl/she to work to cl/her
 'she gave you to her(older woman) to work'

(f) xcach ya' ix i'o'caŋ kalem
 you she gave cl/she to sweep trash
 (tet ya')
 (to cl/her)
 'she gave you (to her/older woman) to sweep the trash'

Examples (d), (e), and (f) refer to the frequent lending and borrowing of children among neighbors and relatives to help with daily tasks.

With the meaning 'to give' one also can hear a sentence like:

(g) xa' ix ijo' ha' wet an
gave cl/she to carry water to me 1p
'she gave me the job of carrying water'

ijo' ha' is an object incorporated expression which is treated as the object of the verb 'to give'.

5. The passive is not ungrammatical for all speakers. For some it is an acceptable secondary form. This is parallel to the situation noted in French by Aissen (1974). In one dialect of French Reflexivization is allowed to operate in an embedded clause, while in another it is not.
6. The informants even gave a telling translation of some causative sentences which reflected the new relation of the embedded object to the main verb. Instead of the expected Spanish sentence 'me hizo lavar ropa: she made me wash the clothes' they would say 'me dio ropa para lavar: she gave me clothes to wash'. See Note 4 for the difference in construction between the two uses of a'a 'to make' and 'to give'.
7. In the collapsing operation of manner adverbial sentences it was the second verb which had become the main verb. This was probably due to the nature of the helping verb -u. See Chapter 12 Manner Adverbial Sentences for more details.
8. See Perlmutter and Postal's Relational Grammar (forthcoming).

9. idem.

10. Another instance of a derived subject was discussed in Chapter 10 A Promotion Rule. An animate subject was promoted to the function of subject of the intransitive aspectual ichi 'to begin'. In this case, too, the derived subject did not conform to the selectional restrictions of the verb since ichi 'to begin' takes only inanimate subjects in simplex sentences.

General Summary

As a general introduction to the syntax of Jacaltec, Chapter 1 contained typological information including remarks on the VSO word order, emphasis, question, negation, coordination, and comparative constructions. A section was also devoted to the copulas of existence and manner.

The semantic and morphological variations of the verb forms were discussed in Chapter 2. Jacaltec verbs are marked for aspect (completive and incompletive, progressive and sequential), moods (imperative and exhortative), and voices (active and various forms of passive). The chapter ended with a presentation of non-inflectional modals.

Chapter 3 constituted a case study of a mixed ergative language with two types of Case Marking rules--an ergative type in finite and main clauses and a nominative/accusative type in aspectless constituents.

Chapters 4 and 5 considered the universal phenomenon of anaphora. They dealt with noun classifiers, which are a characteristic of the Kanjobalan branch of the Mayan family. Noun classifiers provide the basic pronoun forms in Pronominalization under both identity of reference and identity of sense. Their frequent absence in surface structure was found to result from the operation of two rules. One is the rule of Noun Classifier Drop which drops classifiers in the presence of other modifiers of the noun; the other is the rule of Noun Classifier Deletion which deletes coreferential pronoun classifiers. This analysis constitutes only a partial exploration of the internal structure of the NP and the semantics and syntax of noun classifiers.

All of the remaining chapters dealt specifically with complex sentences. In Chapters 6 through 9 the structure of complex sentences containing relative clauses and complement sentences was examined in detail, and in the last four chapters the specific operations of promotion and collapsing were considered.

Relative clauses were discussed in Chapter 6; they take no relative markers, and are derived by a rule of Relative Deletion which deletes the coreferential NP. In Chapter 7 it was argued that the double operation of ergative deletion and -n(i) suffixation is a general Jacaltec disambiguation mechanism marking all deletion and movement operations on the subjects of transitives.

Three types of surface complement sentences were described in Chapter 8: that-clause (CS#1), gerund clause (CS#2), and infinitival clause (CS#3). For each type the description included information on surface structure, function, and a characterization of the main verbs under which it is embedded.

In Chapter 9 the placement of a first person particle an was shown to provide the same distinction between "transparent" and "opaque" boundaries of complex sentences as the one obtained with the previously described rule of Noun Classifier Deletion.

The rule of Noun Classifier Deletion, the rule of an Placement and the phenomenon of disambiguation provide the basis for a classification of clauses. Noun Classifier Deletion and an Placement can be used to distinguish clauses as diagrammed below:

	CS#1	Rel Cl	CS#2
N Cl Del	—	+	+
<u>an</u> Placement	—	+	+

The disambiguation mechanism provides the following classification:

	independent clause	CS#1	CS#2
tolerance of ambiguity	—	—	+
selective, semantic disambiguation	—	+	—

In accordance with the above classifications, the following hierarchy of clauses was suggested:

independent clause > CS#1 > Rel Cl > CS#2 > CS#3

This hierarchy corresponds to a scale of "sentencehood" which orders the clauses from the most independent to the most dependent. The more dependent the clause, the fewer its attributes of a sentence. This notion of a hierarchy of clauses is an area of syntax in need of further investigation.

A Promotion rule was discussed in Chapter 10. The rule provides an impersonal intransitive aspectual verb with a surface structure animate subject by copying the embedded subject.

In Chapter 11 the rule of Equi-NP Deletion, which derives infinitival complement sentences (CS#3), was the first instance of collapsing to be discussed. The rule operates in three different environments. There are two instances of Forward Equi-NP Deletion (subject triggered deletion of an agent NP and object triggered deletion of either an agent or patient NP) and one instance of Backward Equi-NP Deletion

(deletion of the subject of a main verb of movement). In all three types of Equi-NP Deletion, only subjects of intransitive verbs may be deleted. The nature of such a restriction remains a question to be further explored.

The second collapsing operation examined was the formation of simplex manner adverbial sentences discussed in Chapter 12. It was argued that these simplex sentences derive from complex manner adverbial sentences composed of a higher manner adverbial predicate followed by an aspectless clause. The manner adverbial predicate itself was analyzed as a complex structure composed of a predicative adjective or noun followed by a helping verb of manner. The chapter closed with remarks on the very restricted nature of aspectless embedded clauses (CS#2).

The third collapsing operation was discussed as part of the study of causative constructions in Chapter 13. A rule of Clause Union was proposed as a new universal treatment of causative predicate raising constructions. The Clause Union proposal stated that readjustments of function were necessary after the collapsing of two clauses had occurred and that these adjustments followed a universal Hierarchy of NPs and a language specific Word Order Principle.

Text 1. A Cooking Recipe

tzet ch-(y)-u Ø s-watx'i no' xotx
 adv asp-A3-vb A3 E3-vb cl N
 how does is made the snail

1) babel x-Ø-chac'-lax-il-oj s-yutz no'
 adv asp-A3-vb-PASS-dir-suff E3-N cl
 first is cut out its behind(of the snail)

2) lahwit'u xin x-Ø-tx'ah-lax-il-oj no'
 adv part asp-A3-vb-PASS-dir-suff cl
 after that then is washed it

3) cat y-ah-toj y-al no'
 conj E3-dir-dir E3-N cl
 and then goes up its water(of the snail)

4) tato hayoH-tic'a Ø j-ohtaj tzet x-Ø-j-ute
 compl pers pro-adv A3 E1pl-vb adv asp-A3-E1pl-vb
 that we always we know it how we do

5) tato s-xol-He ha' x-Ø-txic-lax no'
 compl E3-prep-adv N asp-A3-vb-PASS cl
 if in only water is cooked it

6) cat y-ay-toj ixpix boj seboya s-xol no'
 conj E3-dir-dir N conj N E3-prep cl
 and then goes down tomato and onion in it

7) yet xa huji ha' ha' xin
 conj adv vb cl N part
 when already boil the water then

8) cat s-to no' s-xol ha' ha'
 conj E3-vb cl E3-prep cl N
 and then goes it in the water

9) hun hujuy-He ch-Ø-(y)-a' no'
 num N-adv asp-A3-E3-vb cl
 one boiling only gives it

10) taca s-je co-c'ul xin waltu'
 conj E3-vb E1pl-N part part
 and if wants our stomach then then

x-Ø-ax-lax-pax s-koye-hal no'
 asp-A3-vb-PASS-part E3-N-suff cl
 is stewed its dough(of the snail)

11) waltu' babel x-Ø-co-watx'e s-koye-hal no'
 part adv asp-A3-E1pl-vb E3-N-suff cl
 then first we make it its dough

12) can Ø co-coc'tze-n-coj ixpix s-xol
 conj A3 E1pl-vb-suff-dir N E3-prep
 and then we grind it tomato in

13) cat xin s-to y-ox-al
 conj part E3-vb E3-N-suff
 and then goes its achiote

14) cat Ø j-a-ni-coj y-ibaH ka'
 conj A3 E1pl-vb-suff-dir E3-prep N
 and then we put it on on top fire

- 15) cat xin Ø ichi Ø co-chuc-ni yutte mach
 conj part A3 vb A3 E1pl-vb-suff conj neg
 and then begins we stir it so that not
 x-Ø-tzihbi
 asp-A3-vb
 tastes burned
- 16) xa huj xin s-koye-hal no' tu'
 adv vb part E3-N-suff cl dem
 already boiling then its dough(of the snail) that
 cat xin s-to no' s-xol
 conj part E3-vb cl E3-prep
 and then goes it in
- 17) cat xin y-a-lax-ay-toj uch'e s-xol
 conj part E3-vb-PASS-dir-dir N E3-prep
 and then is thrown down apasote in
- 18) cat-tic'a Ø j-able-n pax xin tzet
 conj-part A3 E1pl-vb-suff part part adv
 and then always we taste it again then how
 y-e no'
 E3-vb cl
 is it
- 19) ta xa x-je-h-tij no'
 compl adv E3-vb-dir-dir cl
 if yet is ready it
- 20) cat xin Ø j-i-ni-hay no' y-ibaŋ ka'
 conj part A3 E1pl-vb-suff-dir cl E3-prep N
 and then we take it down it on top fire

- 21) hac-tu' ch-(y)-u s-watx'e-lax no'
 adv-dem asp-A3-vb E3-vb-PASS cl
 that way does is made it

How To Cook Snails

- 1) First we cut off their tails.
- 2) After that we wash them.
- 3) And we put the water on,
- 4) depending on how we want to cook them.
- 5) If they are cooked just in water,
- 6) tomatoes and onions are thrown in with them.
- 7) When the water is boiling,
- 8) they are put in the water,
- 9) and they boil once.
- 10) And if we want to stew them in cornmeal dough,
- 11) then first we make the dough,
- 12) and then we grind in tomatoes.
- 13) And then in goes the achiote,
- 14) and then we put it on top of the fire,
- 15) and we begin to stir so that it does not get a burned taste.
- 16) When the cornmeal is already boiling,
- 17) then the snails go in, and epazote is thrown in with them.
- 18) We taste to see how they are.
- 19) When they are ready,
- 20) we take them off the fire.
- 21) That is how snails are prepared.

Text 2. A Jacaltec Song

tx'oxlaj

- (1) a'wej₁ niman₂ c'ulal₃ wiñ₄ an₅ (2) chin bitnoj₁ yiñ₂
ni'an₃ son₄ ti'₅ (3) como₁ caw₂ xtz'a'₃ hin c'ul₄ wiñ₅ an₆
(4) i'₁ cochñetic'a₂ mach₃ bakin₄ xcanoj₅ buxub₆ ti'₇ wu₈ an₉
(5) yuxin₁ caw₂ xtz'a'₃ hin c'ul₄ wiñ₅ an₆ (6) yuxin₁ chin
bitñetoj₂ an₃ (7) ham₁ ti'₂ chalcan₃ heb₄ wes₅
(8) tiempos₁ que₂ se fueron₃ ya₄ no₅ volverán₆ (9) yet₁
xcin to₂ bet₃ coñob₄ an₅ (10) xcin ocapnoj₁ tx'oxlaj₂ an₃
(11) xcin t'atñictoj₁ yiñ₂ ni'an₃ coñob₄ an₅ (12) cochñe₁
mach₂ bakin₃ xcanojcan₄ wu₅ an₆ (13) haxa₁ cin meltzopax₂
an₃ (14) xcin ayiloj₁ namuxal₂ an₃ (15) aytamil₁

Tx'oxlaj [place name]

- (1) give₁ big₂ stomach₃ for me₄ [I]₅ (2) I will sing₁ in₂
short₃ melody₄ this₅ (3) because₁ very much₂ burns₃ my
stomach₄ in me₅ [I]₆ (4) and₁ it always seems₂ there is
not₃ when₄ will stay₅ Buxub[name of a hamlet]₆ this₇ by me₈
[I]₉ (5) that is why₁ very much₂ burns₃ my stomach₄ in me₅
[I]₆ (6) that is why₁ I sing away₂ [I]₃ (7) maybe₁ this₂
say₃ [plural]₄ ladinos[Spaniards]₅ (8) Times₁ that₂ went₃
already₄ never₅ will come back₆ (9) when₁ I went₂ to₃ town₄
[I]₅ (10) I arrived in₁ Tx'oxlaj₂ [I]₃ (11) I looked
away into₁ at₂ small₃ village₄ [I]₅ (12) it seems₁ there
is not₂ when₃ it will stay₄ by me₅ [I]₆ (13) already when₁
I came back again₂ [I]₃ (14) I went down₁ to Namuxal[place
name]₂ [I]₃ (15) there is so much₁

- sc'ulch'anil₂ jilnicantij₃ heb₄ naj₅ witz₆ hoynecan₇ ni'an₈
buxub₉ ti'₁₀ (16) niman₁ cheyute₂ he c'ul₃ wiñ₄ an₅
(17) mato₁ c'ul₂ (18) mato₁ tx'oj₂ xwal₃ ti'₄ an₅
(19) caw₁ xtitcan₂ yul₃ hin c'ul₄ an₅ (20) tzet₁ xu₂ wul₃
buxub₄ ti'₅ an₆ (21) bisc'ulal₁ jilnicanoj₂
(22) alegrexa₁ tinañ₂ (23) haxca₁ hin meltzohojxa₂ an₃
(24) hactu'₁ chu₂ hin taklican₃ an₄ (25) como₁ chin
meltzohoj₂ an₃ (26) hactu'₁ chu₂ stakli₃ ya'₄ xap₅ insen₆
(27) haxcam₁ ha'₂ ya'₃ xbitñentoj₄ ni'an₅ son₆ ti'₇

- its beauty₂ we come to see in₃ [plural]₄ the₅ mountain₆ sur-
rounding₇ little₈ Buxub₉ this₁₀ (16) big₁ make₂ your
stomach₃ for me₄ [I]₅ (17) whether₁ good₂ (18) whether₁
bad₂ I say₃ this₄ [I]₅ (19) very much₁ suddenly comes₂ in₃
my stomach₄ [I]₅ (20) how₁ did₂ I come₃ to Buxub₄ this₅
[I]₆ (21) sad₁ we see it once₂ (22) already happy₁
now₂ (23) because₁ I am on my way back already₂ [I]₃
(24) that is how₁ does₂ take leave₃ Mr.₄ Sebastián₅ Insen₆
(27) because₁ it is₂ he₃ sings away₄ short₅ melody₆ this₇

Tx'oxlaj

- (1) Be patient with me. (2) I will sing this melody
(3) because I feel very sad. (4) It seemed that I was
never going to leave Buxub. (5) That is why I am sad;
(6) that is why I sing. (7) This is what the ladinos say:
(8) time past will never come back. (9) When I went to
town (10) I arrived at Tx'oxlaj, (11) I saw the little
village. (12) It seemed that I was never going to leave

it. (13) When I came back (14) I came to Namuxal.
 (15) How beautiful the mountains surrounding little Buxub
 are. (16) Be patient with me (17/18) whether what I say
 is good or bad. (19) I remember well (20) how I came to
 Buxub. (21) It looked sad (22) now it is joyful
 (23) because I am on my way back. (24) This is how I will
 take leave, (25) because I am going back. (26) This is
 how Mr. Sebastián Insén takes leave (27) because it is he
 who sang this melody.

Text 3. The Story of the Rabbit and the Coyote

yic'ti'al₁ no'₂ conejo₃ b'oj₄ no'₅ oj₆

- (1) ahatoj₁ no'₂ ni'an₃ conejo₄ swi'₅ te'₆ chulul₇
 (2) x'apni₁ no'₂ oj₃ (3) tzet₁ chawu₂ beti'₃ cho'₄?
 (4) xi₁ ab₂ no'₃ oj₄ tet₅ no'₆ conejo₇ (5) matzet₁ om₂
 (6) to₁ ay₂ te'₃ tahnaj₄ chulul₅ beti'₆ la₇ (7) xi₁ ab₂
 no'₃ ni'an₄ conejo₅ (8) lañan sloni₁ no'₂ hune'₃ te'₄
 tahnaj₅ chulul₆ (9) aytij₁ hunuj₂ wet₃ an₄ om₅ (10) xi₁
 ab₂ no'₃ oj₄ tet₅ no'₆ (11) wa'aytoj₁ hunuj₂ hawet₃ an₄
 (12) c'abtoj₁ ha ti'₂ (13) sc'abnitoj₁ no'₂ oj₃ sti'₄
 (14) x'ayiloj₁ pehna₂ hune'₃ yaxla₄

the story₁ of the₂ rabbit₃ and₄ the₅ coyote₆

- (1) is up₁ the₂ small₃ rabbit₄ on its top₅ of the₆ injerto
 tree₇ (2) arrived₁ the₂ coyote₃ (3) what₁ are you
 doing₂ here₃ you₄ (4) they say₁ that said₂ the₃ coyote₄
 to₅ the₆ rabbit₇ (5) nothing₁ man₂ (6) it is that₁
 there is₂ the₃ ripe₄ injerto fruit₅ here₆ see₇ (7) they
 say₁ that said₂ the₃ small₄ rabbit₅ (8) was eating₁ he₂
 one₃ [plant]₄ ripe₅ injerto fruit₆ (9) throw down₁ any
 one₂ for me₃ man₄ [I]₅ (10) they say₁ that said₂ the₃
 coyote₄ to₅ him₆ (11) I will throw down₁ any one₂ for you₃
 [I]₄ (12) open₁ your mouth₂ (13) and opened₁ the₂
 coyote₃ his mouth₄ (14) fell out₁ hard₂ a₃ green₄

chulul₅ yih₆ sat₇ yeh₈ no'₉ oj₁₀ (15) x'ec'₁ wejna₂ no'₃
 (16) ab₁ chic'tajxat₂ sti'₃ no'₄ (17) tofel₁
 sbejcanaytij₂ no'₃ conejo₄ hune₅ chulul₆ tu'₇ xin₈
 (18) xto₁ no'₂ yih₃ ahe₄ (19) wal₁ no'₂ oj₃ xin₄
 (20) xchiwa₁ sc'ul₂ no'₃ (21) xto₁ no'₂ saywal₃ yih₄ no'₅
 conejo₆

(22) wal₁ tina₂ chawechma'₃ hawet₄ (23) xi₁ ab₂ no'₃ tet₄
 no'₅ conejo₆ (24) machoj₁ om₂ (25) ay₁ te'₂ has₃ caw₄
 tahnaj₅ beti'₆ la₇ (26) xi₁ ab₂ no'₃ conejo₄ (27) aytij₁
 hunuj₂ wet₃ an₄ (28) xi₁ no'₂ oj₃ (29) x'ayiloj₁ ich₂
 has₃ yaxto₄ (30) xto₁ no'₂ conejo₃ yih₄ ahe₅ xin₆

injerto fruit₅ on₆ its face₇ of his teeth₈ of the₉ coyote₁₀
 (15) passed₁ falling₂ he₃ (16) they say that₁ completely
 bloody₂ his mouth₃ of his₄ (17) just₁ let fall down₂ the₃
 rabbit₄ one₅ injerto fruit₆ that₇ then₈ (18) went₁ he₂ in₃
 run₄ (19) but₁ the₂ coyote₃ then₄ (20) itches₁ his
 stomach₂ of his₃ (21) went₁ he₂ to look₃ for₄ the₅ rabbit₆

(22) well₁ now₂ you will wait₃ for yours₄ (23) they say₁
 that said₂ he₃ to₄ the₅ rabbit₆ (24) no₁ man₂ (25) there
 is₁ the₂ zapote fruit₃ very₄ ripe₅ here₆ see₇ (26) they
 say₁ that said₂ the₃ rabbit₄ (27) throw down₁ any one₂ to
 me₃ [I]₄ (28) says₁ the₂ coyote₃ (29) went down₁ big₂
 zapote fruit₃ still green₄ (30) went₁ the₂ rabbit₃ in₄
 run₅ then₆

(31) hat₁ ay₂ no'₃ sti'₄ hune'₅ ok₆ (32) x'apni₁ no'₂ oj₃
 (33) wal₁ tina₂ chach ta₃filoj₃ (34) xi₁ ab₂ no'₃ oj₄
 (35) machoj₁ om₂ (36) ay₁ hune'₂ queso₃ ahaytoj₄ yul₅ ha'₆
 ha'₇ ti'₈ la₉ (37) mach₁ chin c'o₂ji₂ winihatij₃ an₄
 (38) hach₁ ti'₂ nimejal₃ hach₄ (39) ta₁ chawuc'tuj₂ sunil₃
 ha'₄ ha'₅ ti'₆ (40) chu₁ hawinihatij₂ (41) xi₁ ab₂ no'₃
 ni'an₄ conejo₅ tet₆ no'₇ oj₈ (42) x'oc₁ no'₂ oj₃
 yuc'nujatij₄ ha'₅ ha'₆ (43) ma₁tic'a₁ xlahwihatij₂ ha'₃
 (44) ab₁ xa₂ eltoj₃ ha'₄ yul₅ syutz₆ no'₇ (45) xanicoj₁
 no'₂ conejo₃ smajil₄ syutz₅ no'₆ oj₇ (46) xlahwihatij₁ ha'₂
 xin₃ (47) wal₁ hune'₂ chal₃ no'₄ conejo₅ tu'₆ xin₇
 (48) chubil₁ queso₂ no'₃ ahaytoj₄ yich₅ ha'₆ (49) ta'an₁
 etal₂ chu₃ no'₄ yih₅ no'₆ oj₇ (50) yechel₁ x'ahaw₂

(31) there₁ there is₂ he₃ its mouth₄ of a₅ well₆
 (32) arrived there₁ the₂ coyote₃ (33) well₁ now₂ you are
 finished₃ (34) they say₁ that said₂ the₃ coyote₄
 (35) no₁ man₂ (36) there is₁ a₂ cheese₃ is down there₄
 in₅ the₆ water₇ this₈ see₉ (37) not₁ I am able₂ I bring it
 up₃ [I]₄ (38) you₁ here₂ big₃ you₄ (39) if₁ you drink
 away₂ all₃ the₄ water₅ this₆ (40) can₁ you bring it up₂
 (41) they say₁ that said₂ the₃ little₄ rabbit₅ to₆ the₇
 coyote₈ (42) entered₁ the₂ coyote₃ he drink up₄ the₅
 water₆ (43) never₁ finishes₂ it₃ (44) they say that₁
 already₂ came out₃ it₄ in₅ his bottom₆ of his₇ (45) put
 on₁ the₂ rabbit₃ its stopper₄ of his bottom₅ of the₆ coyote₇
 (46) finished₁ it₂ then₃ (47) well₁ the one₂ says₃ the₄
 rabbit₅ that₆ then₇ (48) that₁ cheese₂ it₃ is down there₄
 its bottom₅ of it[water]₆ (49) well if not₁ making fun₂
 did₃ he₄ of₅ the₆ coyote₇ (50) its reflection₁ of the
 moon₂

xjilaytoj₃ (51) xlahwihatij₁ ha'₂ ha'₃ (52) matzet₁
 (53) wal₁ no'₂ ni'an₃ conejo₄ xin₅ (54) nan xapax₁ bay₂
 ay₃ no'₄

we see down there₃ (51) finished₁ the₂ water₃
 (52) nothing₁ (53) as for₁ the₂ little₃ rabbit₄ then₅
 (54) somewhere else again₁ where₂ is₃ he₄

The Story of the Rabbit and the Coyote

(1) The little rabbit was perched on top of an injerto tree
 (2) when the coyote arrived. (3) "What are you doing here?"
 (4) they say that the coyote said to the rabbit. (5) "No-
 thing, man!" (6) "It is just that there are ripe injertos
 (fruits) here, see," (7) they say that the little rabbit
 said (8) while eating a ripe injerto. (9) "Throw me one,
 man," (10) they say that the coyote told him. (11) "I
 will throw you one. (12) Open your mouth." (13) And the
 coyote opened his mouth. (14) A green injerto fell on the
 teeth of the coyote (15) and the coyote fell flat.
 (16) They say that his mouth was all bloody. (17) The
 rabbit threw just that one injerto on the teeth of the coyote
 (18) and he left running; (19) while the coyote (20) he
 was furious (21) and he went to look for the rabbit.

(22) "Now, wait for me." (23) they say that the coyote
 said to the rabbit. (24) "No, man, (25) there are a lot
 of ripe zapotes (fruits) here, see." (26) They say that
 that was what the rabbit said. (27) "Throw me one,"

(28) they say that the coyote said. (29) A damn zapote
 that was still green fell, (30) and the rabbit left
 running.

(31) He was by a well (32) when the coyote arrived.
 (33) "Now I will finish with you," (34) they say that the
 coyote said. (35) "No, man. (36) There is a cheese here
 down in the water, look! (37) I cannot get it out.
 (38) You are big; (39) if you drink all that water
 (40) you could get it out," (41) they say that the rabbit
 told the coyote. (42) And the coyote started drinking the
 water (43) and the water was never ending. (44) They say
 that the water was now coming out of his bottom (45) so the
 rabbit put a cork up his bottom (46) and he finished the
 water. (47) What the rabbit was saying (48) --that there
 was a cheese at the bottom of the water-- (49) that was
 only a trick on the coyote. (50) It was the reflection of
 the moon that you could see. (51) There was no more water,
 (52) there was nothing. (53) As for the little rabbit,
 (54) he was already somewhere else.

Text 4. The Story of John Ashes

yic'ti'al₁ naj₂ xuwan₃ tañ₄

(1) yul₁ hune'₂ coñob₃ (2) tolob₁ ay₂ hune'₃ ya'₄ comi'₅
caw₆ ixnamxa₇ (3) ayto₁ ab₂ xin₃ hune'₄ ni'an₅ stakbal₆
stz'ul₇ ya'₈ (4) como₁ schucilxatē₂ ya'₃ yul₄ hune'₅
ni'an₆ pat₇ stxam₈ ñah₉ tu'₁₀ (5) ab₁ caw₂ xahan₃ ay₄ naj₅
yu₆ ya'₇ (6) tolob₁ xin₂ xuwan₃ sbi₄ naj₅ (7) yaja'₁
como₂ ab₃ mach₄ cha'₅ cheja'₆ sba₇ naj₈ tet₉ smi'₁₀ tu'₁₁
(8) tolob₁ sti'₂ ka'ñetic'a₃ ay₄ naj₅ (9) hanc'añetic'a₁
yul₂ ñah₃ choche₄ naj₅ stañen₆ ch'en₇ yojech₈ (10) yuxin₁
xijcanocañ₂ naj₃ xuwan₄ tañ₅ (11) boj₁ xuwan₂ yojech₃

its story₁ the₂ John₃ Ashes

(1) in₁ a₂ village₃ (2) they say₁ there is₂ a₃ [older
person]₄ lady₅ very₆ old already₇ (3) still is₁ they say₂
then₃ a₄ small₅ her last₆ her child₇ of hers₈ (4) since₁
already alone₂ she₃ in₄ a₅ small₆ hut₇ of its edge₈ of house₉
that₁₀ (5) they say that₁ very₂ delicate₃ there is₄ he₅
because of₆ her₇ (6) they say that₁ then₂ John₃ his name₄
of his₅ (7) but₁ as₂ they say₃ is not₄ allows₅ to be
ordered₆ himself_{7,8} to₉ his mother₁₀ that₁₁ (8) they say
that₁ at its mouth₂ of the fire only always₃ there is₄ he₅
(9) only always₁ in₂ house₃ likes₄ he₅ watches₆ the₇
cooking stones₈ (10) that is why₁ ended up carrying₂ the₃
John₄ Ashes₅ (11) and₁ John₂ cooking stone₃

(12) ni₁ txuluj₂ (13) ni₁ hatxulwuj₂ (14) ab₁ mañtic'a₂
ch'eltij₃ naj₄ (15) ni₁ sti'₂ ñah₃ (16) tolob₁ xin₂
xtz'oñbicantoj₃ naj₄ yu₅ pulu'₆ tañ₇ (17) hactu'₁ xin₂ xu₃
sto₄ ya'₅ comi'₆ tu'₇ sk'ambenoj₈ (18) tzet₁ wal₂ yuten₃
sba₄ ya'₅ b'oj₆ naj₇ (19) xbabi₁ ya'₂ yatut₃ tiyoñ₄
(20) ab₁ xilni₂ ya'₃ naj₄ pale₅ (21) skamben₁ ya'₂ tzet₃
consejohal₄ ch'a'laxoj₅ tet₆ ya'₇ (22) yu₁ naj₂ ni'an₃ tu'₄
(23) a...₁ wal₂ tinañ₃ mamin₄ (24) tzimi₁ consejohal₂
chawa'₃ wet₄ an₅ (25) yu₁ hune'₂ ni'an₃ wunin₄ caw₅ isa₆
an₇ (26) xi₁ ab₂ ya'₃ tet₄ naj₅ pale₆ (27) mañtic'a₁
bay₂ sjeç'oj₃ sc'ul₄ naj₅ (28) ni₁ si'₂ (29) ni₁
chejbanil₂ (30) ni₁ waxamca₂ tzet₃ xjute₄ naj₅
(31) c'anch'an₁ hach₂ cutz'in₃ (32) hanc'añe₁ hune'₂ ti'₃

(12) not₁ to defecate₂ (13) not₁ to urinate₂ (14) they
say₁ never₂ comes out₃ he₄ (15) not even₁ its mouth₂ of the
house₃ (16) they say that₁ then₂ was left out malnourished₃
he₄ by₅ scratching₆ Ashes₇ (17) that is how₁ then₂ did₃ go₄
the₅ lady₆ that₇ to ask₈ (18) what₁ then₂ does₃ herself_{4,5}
with₆ him₇ (19) advanced₁ she₂ to the house₃ of God₄
(20) they say that₁ and saw₂ she₃ the₄ priest₅ (21) and
asked₁ she₂ what₃ advice₄ is given₅ to₆ her₇ (22) about₁
the₂ small₃ that₄ (23) ah₁ well₂ now₃ father₄ (24) by any
chance what₁ advice₂ you give₃ to me₄ [I]₅ (25) about₁ a₂
small₃ my child₄ very₅ lazy₆ [I]₇ (26) they say₁ that said₂
she₃ to₄ the₅ priest₆ (27) never exists₁ where₂ wants to
go by₃ his stomach₄ of his₅ (28) not₁ for firewood₂
(29) not₁ for an errand₂ (30) not₁ whatever₂ what₃ we do₄
him₅ (31) poor₁ you₂ child₃ (32) only₁ one₂ this₃

- *wal₄ tawet₅ an₆ la₇ (33) ay₁ chubil₂ melyu₃ ti'₄ la₅
 (34) cat₁ hawi'ni₂ cac'ofoj₃ no'₄ ni*tej₅ txitam₆
 (35) cat₁ hawanicoj₂ naj₃ stafe₄ no'₅ (36) yubalhe₁
 mach₂ *to₃ colo'₄ no'₅ xol₆ Hah₇ (37) hactu'₁ chu₂ chaltu'₃
 mamin₄ (38) xi₁ ab₂ ya'₃ comi'₄ (39) yuch'an₁ tiyo*₂
 tawet₃ (40) xlokla₁ cac'oH₂ ni*tej₃ txitam₄ xin₅
 (41) stzabnicoj₁ ya'₂ comi₃ yalni₄ tet₅ naj₆ (42) ta₁
 cha' pastor₂ naj₃ no'₄ (43) heh₁ xi₂ ab₃ naj₄
 (44) xmoncha₁ naj₂ yu₃ smi'₄ tu'₅ (45) ab₁ caw₂ xtzalacoj₃
 naj₄ yiH₅ ni*tej₆ nok₇ tu'₈ (46) cabxa₁ x'ahaw₂ xloklo₃
 no'₄ xin₅ (47) ab₁ xto eliloj₂ naj₃ sti'₄ Hah₅ b'oj₆ no'₇
 (48) como₁ ab₂ yul₃ Hah₄ xecbapax₅ naj₆ no'₇
 (49) xhitzpaxtoj₁ yo₂ xin₃ (50) ab₁ yiH₂ scatteb₃ x'ahaw₄

I say₄ to you₅ [I]₆ see₇ (33) is₁ how much₂ money₃ this₄
 see₅ (34) and₁ you buy₂ any two₃ [animal]₄ small₅ pig₆
 (35) and₁ you put₂ him₃ he watches₄ them₅ (36) so that₁
 not₂ go₃ walk₄ they₅ in between₆ houses₇ (38) they say₁
 that said₂ the₃ lady₄ (39) thank₁ God₂ to you₃ (40) were
 bought₁ two₂ small₃ pigs₄ then₅ (41) and started₁ the₂
 lady₃ to say₄ to₅ him₅ (42) that₁ watches₂ he₃ them₄
 (43) all right₁ they say₂ that said₃ he₄ (44) was con-
 vinced₁ he₂ by₃ his mother₄ that₅ (45) they say that₁ very
 much₂ rejoiced₃ he₄ in₅ small₆ animals₇ that₈ (46) already
 two₁ moons₂ that were bought₃ they₄ then₅ (47) they say
 that₁ went out₂ he₃ its mouth₄ of the house₅ with₆ them₇
 (48) since₁ they say that₂ inside₃ house₄ had tied also₅ he₆
 them₇ (49) went away₁ its foot₂ then₃ (50) they say
 that₁ in₂ fourth₃ moon₄

- (51) x'eliloj₁ naj₂ amak₃ (52) hach₁ tu'₂ xu₃ shitziltij₄
 naj₅ (53) ab₁ xa ec'₂ naj₃ nahat₄ yiH₅ te'₆ Hah₇
 (54) ni*tejal₁ ab₂ sutla₃ yel₄ naj₅ nahat₆ (55) yiH₁
 wajeb₂ x'ahaw₃ (56) ab₁ nimejxa₂ no'₃ txitam₄
 (57) hacpaxtu'₁ naj₂ (58) ab₁ xa ec'₂ naj₃ pa*yal₄
 (59) xtihe'otoj₁ naj₂ tx'ixwilal₃ yu₄ naj₅
 (60) x'elcantoj₁ ch'en₂ yojech₃ (61) b'oj₁ taH₂ yiHtajil₃
 yu₄ naj₅ (62) ab₁ xhitzcantoj₂ naj₃ nahat₄ boj₅ no'₆
 txitam₇ xin₈ (63) xchalo₁ hune'₂ bay₃ caw₄ ay₅ telaj₆ slo₇
 no'₈ txitam₉ (64) ab₁ stzoc'niloj₂ naj₃ hune'₄ te'₅ ni'an₆
 salsub₇ (65) swatx'en₁ naj₂ te'₃ (66) ab₁ silni₂ naj₃
 sat₄ te'₅ (67) xaben₁ no'₂ txitam₃ xin₄ haxca₅ ab₆ sakal₇

(51) went out₁ he₂ to courtyard₃ (52) only way₁ that₂ did₃
 step out₄ he₅ (53) they say that₁ already passed₂ he₃ far₄
 from₅ the₆ house₇ (54) little by little₁ they say that₂
 gradually₃ goes out₄ he₅ far₆ (55) in₁ six₂ months₃
 (56) they say that₁ already big₂ the₃ pigs₄ (57) and that
 same way₁ he₂ (58) they say that₁ already passes₂ he₃ on
 walks₄ (59) forgot₁ he₂ shyness₃ by₄ him₅ (60) end up
 staying away₁ the cooking stones₂ (61) and₁ ashes₂ behind₃
 by₄ him₅ (62) they say that₁ moved away₂ he₃ far₄ with₅
 the₆ pigs₇ then₈ (63) was found₁ a one₂ where₃ very much₄
 there is₅ woods₆ eat₇ the₈ pigs₉ (64) they say that₁ and
 cut₂ he₃ a₄ [wood]₅ small₆ piece of wood₇ (65) and
 fixed₁ he₂ it₃ (66) they say that₁ and scraped₂ he₃ its
 face₄ of it₅ (67) and heard₁ the₂ pigs₃ then₄ because₅
 they say that₆ pretty₇

yoktzalax₈ te'₉ (68) tolob₁ xin₂ xcañalwicañ₃ no'₄
 (69) haca'₁ cu cañalwi₂ yih₃ te'₄ marimba₅

was played₈ it₉ (68) they say that₁ then₂ started dancing₃
 them₄ (69) the way₁ we dance₂ with₃ the₄ marimba₅

The Story of John Ashes

(1) In a village (2) they say that there was a woman who was very old already (3) but she still had a baby boy with her. (4) Since she was alone with him in a hut at the edge of town (5) they say that he was very well treated by her. (6) They say his name was John. (7) But apparently he would not obey his mother. (8) They say that he would always stay near the fire; (9) he liked to watch the cooking stones inside the house. (10) That is why they had nicknamed him John Ashes, (11) and also John Cooking Stone. (12) Not even to defecate (13) nor to urinate (14) would he go out, they say, (15) not even to the porch. (16) They say he became very sickly because of his playing in the ashes. (17) That is why the woman went to ask (18) what she should do with him. (19) She went to the church. (20) They say that she saw the priest (21) and she asked what advice he could give her (22) about that child. (23) "Ah now, Father, (24) I do not know what advice you can give me (25) for my lazy son." (26) They say that she said to the priest, (27) "he does not want to go anywhere— (28) not to gather wood (29) nor to do errands, (30) no matter what he is

asked to do." (31) "My poor woman! (32) Listen, I will say only this. (33) Take this money, see, (34) and buy two piglets (35) and put him to take care of them (36) so that they do not run all over town." (37) "I will do that then, Father," (38) they say that she said. (39) "Thank you very much." (40) So two piglets were bought. (41) And the woman started asking him (42) to watch them. (43) "All right," he said. (44) He had been convinced by his mother. (45) They say that he was very happy with the piglets. (46) It had been two months since they had been bought. (47) They say that not until then did he go to the porch with them (48) because they say that he had them tied inside. (49) So after a while (50) they say, after the fourth month (51) he went out to the courtyard. (52) This is just how he was getting out. (53) They say that he began to walk a little ways from the house; (54) they say that little by little he was going further. (55) After five months (56) they say that the pigs were big then (57) and so was he. (58) They say that he was taking walks; (59) he stopped being shy; (60) he forgot about the cooking stones (61) and the ashes. (62) they say he ventured far away with the pigs. (63) He found a place where there was good pasture for the pigs to eat. (64) They say that he cut a small piece of wood (65) and he fixed it. (66) And they say that he cut it open. (67) They say that when the pigs heard how nice it sounded (68) they say that they started to dance (69) the way we dance to the marimba.

Appendix A. Genetic Classification and Bibliographic Material on Jacaltec

I. GENETIC CLASSIFICATION

Jacaltec is a language of the greater Kanjobalan branch of the Mayan family of languages. According to Kaufman's recent classification of Mayan languages (1974) Jacaltec, Kanjobal, and Acatec constitute the Kanjobalan sub-group of highland languages. Kaufman's classification is as follows:

1. Huastecan: Huastec, Chicomultec
2. Yucatecan: Yucatec, Lacandón, Itza, Mopán
3. Greater Tzeltalan
 - a. Cholan: Chorti, Chol, Chontal
 - b. Tzeltalan proper: Tzotzil, Tzeltal
4. Greater Kanjobalan
 - a. Chujean: Tojolabal, Chuj
 - b. Kanjobalan: Kanjobal, Acatec, Jacaltec
 - c. Cotoque: (Motozintlec, Tuzantec)
5. Greater Mamean
 - a. Mamean proper: Teco, Mam
 - b. Ixilan: Aguacatec, Ixil
6. Greater Quichean
 - a. Uspantec
 - b. Quichean proper: Sipacapa, Sacapultec, Quiche, Tzutujil, Cakchiquel
 - c. Pokom: Pocomam, Pocomchi
 - d. Kekchi

For a discussion of the subgrouping of Greater Kanjobalan see Robertson (1976).

II. BIBLIOGRAPHIC MATERIAL ON JACALTEC

Besides Day's grammar (1973a) and dictionary, the available linguistic material on Jacaltec includes a grammatical sketch written in 1931 by La Farge and Byers and published as an appendix to the ethnographic book The Year Bearer's People; a mimeographed vocabularly and grammatical notes on Kanjobal, Jacaltec, and Acatec written by Don Lansing in the nineteen sixties; a Gramática Jacalteca recently written by Antonio Feliciano Mendez, a native speaker of Jacaltec; two articles by Clarence and Katherine Church of the Summer Institute of Linguistics, "Jacaltec Noun Phrase" (1961) and "Jacaltec Grammar" (1966); and two articles by the author—"Properties of Basic and Derived Subjects in Jacaltec" (Craig, 1976a) and "Disambiguation and Hierarchies in Jacaltec" (Craig, 1976b).

Sociolinguistic material includes investigations on the use of noun classifiers, "The Semantics of Social Categories in a Transformational Grammar of Jacaltec" by Day (1973b) and "Reference and Address in Jacaltec: Linguistic Competence in Social Situations" (1973a) by Breitborde.

Texts from the Jacaltenango dialect are found in Day (1973a, 1976) and Craig (1976c).

Text material of Concepción Jacaltec transcribed and translated by the Statmeyers is also available through the Guatemalan branch of the Summer Institute of Linguistics and includes health pamphlets (1971), the New Testament of Mark (1971), and a folk tale in the collection According to Our Ancestors (1972).

- (b) ch- \emptyset -s-watx'e ix : ch-s-watx'e ix
 asp-A3-E3-make cl/she (R1) x-s-watx'e ix
 'she makes it'

Rule 2: Assimilation #2

s, x, x \rightarrow x /- x
 s s
 x x

$\begin{bmatrix} - \text{voc} \\ + \text{cont} \end{bmatrix}$ \rightarrow $\begin{bmatrix} \alpha \text{cor} \\ \beta \text{ant} \end{bmatrix}$ /- $\begin{bmatrix} - \text{voc} \\ + \text{cont} \\ \alpha \text{cor} \\ \beta \text{ant} \end{bmatrix}$

Examples are:

- (c) ch- \emptyset -s-mak naj : ch-s-mak naj
 asp-A3-E3-hit cl/he (R1) x-s-mak naj
 (R2) s-s-mak naj
 'he hits it'
- (d) s-xik no' : s-xik no'
 E3-wing cl(animal) (R2) x-xik no'
 'its wing(of animal)'

Rule 3: Sibilant Cluster Reduction

s, x, x \rightarrow \emptyset /-s, x, x

$\begin{bmatrix} - \text{voc} \\ + \text{cont} \\ \alpha \text{cor} \\ \beta \text{ant} \end{bmatrix}$ \rightarrow \emptyset /- $\begin{bmatrix} - \text{voc} \\ + \text{cont} \\ \alpha \text{cor} \\ \beta \text{ant} \end{bmatrix}$

(R3) applies to the output of (R2), to give:

- (e) continuation of (c): (R2) s-s-mak naj
 (R3) smak naj
 'he hits it'

- (f) continuation of (d): (R2) x-xik no'
 (R3) xik no'
 'its wing(of animal)'

The assimilation rule (R1) is obligatory, while the successive assimilation (R2) and reduction (R3) are optional and are more common in faster speech. The successive application of rules (R2) and (R3) produces verb forms ambiguous as to the aspect:

- (g) x- \emptyset -s-mak naj : x-s-mak naj
 asp-A3-E3-hit cl/he (R2) s-s-mak naj
 (R3) smak naj
 'he hit it'
- (h) ch- \emptyset -s-mak naj : ch-s-mak naj
 asp-A3-E3-hit cl/he (R1) x-s-mak naj
 (R2) s-s-mak naj
 (R3) smak naj
 'he hits it'

2. Deletions

Rule 4: Initial Glottal Stop Deletion

' \rightarrow \emptyset / Ergative-

The initial glottal stop of verbal stems 'VC- is lost after an ergative case marker:

- (i) ch- \emptyset -w-'ila : ch-w-'ila
 asp-A3-E1-see (R1) xw'ila
 (R4) xwila
 'I say'
- (j) x- \emptyset -y-'ute naj : x-y-'ute naj
 asp-A3-E3-do cl/he (R4) x-yute naj
 (R5) xute naj
 'he did it'
- (k) x- \emptyset -il-ot naj : x-'il-ot naj
 asp-A3-see-PASS cl/he x'ilot naj
 'he was seen'

Rule 5: E3 -y- deletion
$$\begin{matrix} y \\ E3 \end{matrix} \text{ ---} \rightarrow \emptyset / C-$$

The glide y- of the third person ergative case marker is deleted after a consonant:

- (l) t-y-et ix : t-y et ix
 aug^t-E3-to cl(woman) (R5) tet ix
 'to her'
- (m) ch- \emptyset -y-al naj : ch-y-al naj
 asp-A3-E3-say cl/he (R5) chal
 'he says'
- (n) x- \emptyset -y-'il ix : x-y-'il ix
 asp-A3-E3-see cl/she (R4) x-y-il ix
 (R5) xil ix
 'she saw it'

The deletion applies specifically to the case marker and not to the initial y- of a verb stem, as shown in (o) and (p) below:

- (o) ch- \emptyset -yew-oj : ch-yewoj
 asp-A3-exhibit-fut (R1) x̣yewoj
 'it will be exhibited'
- (p) ch- \emptyset -s-yijye naj : ch-s-yijye naj
 asp-A3-E3-obey cl/he (R1) x̣-s-yijye naj
 (R2) s-s-yijye naj
 (R3) syijye naj
 'he obeys'

Rule 6: h- Deletion
$$h \text{ ---} \rightarrow \emptyset / C-$$

The initial h- of the case markers is lost after a consonant or a glide:

- (q) ch-hin toyi : ch-hin toyi
 asp-A1 go (R6) chin toyi
 'I go'
- (r) ch-hach hin-maka : ch-hach hin-maka
 asp-A2 E1-hit (R6) chach hinmaka
 'I hit you'

3. Vowel HarmonyRule 7: Vowel Harmony
$$o \text{ ---} \rightarrow u / uC+-$$

$$\begin{matrix} + \text{ syll} \\ - \text{ high} \\ - \text{ low} \\ + \text{ back} \end{matrix} \text{ ---} \rightarrow \begin{matrix} + \text{ high} \end{matrix} / \begin{matrix} + \text{ syll} \\ - \text{ high} \\ - \text{ low} \\ + \text{ back} \end{matrix} C + -$$

The back rounded vowel of the two suffixes -ot 'passive' and -oj 'irrealis' undergo vowel harmony and assimilate to the [+high] feature of a rounded vowel in the stem to which they are suffixed:

- (s) mat c'ul-oj : mat c'ul-oj
 NEG good-suff (R7) mat c'uluj
 'it is not good'
- (t) ch- \emptyset -hul-oj ix : ch-hul-oj ix
 asp-A3-come-suff cl/she (R6) chul-oj ix
 (R7) chuluj ix
 'she will come'
- (u) x- \emptyset -cuy-ot : x-cuy-ot
 asp-A3-learn-PASS (R7) xcuyut
 'it was learned'

III. TRANSCRIPTION

Two levels of transcription are used in the examples. In the morphological transcriptions, the inaudible third person absolutive is transcribed as \emptyset and the ergative marker which is

deleted in surface structure is placed in parentheses:

(v) x- \emptyset -(y)-al ix
asp-A3-E3-say cl/she

'she said'

(v') xal ix
said cl/she

'she said'

(w) t-(y)-et ix
aug^t-E3-to cl/her

'to her'

(w') tet ix
to cl/her

'to her'

A list of the abbreviations used in the morphological analysis of the examples and in the text is provided in Appendix D.

Appendix C. Predicates Taking Complement Sentences

		Function of CS	CS#1	CS#2	CS#3
I. <u>Verbs of Communication:</u>					
<u>bahwa</u>	'to complain'	0	+		
<u>binayi</u>	'to announce'	S	+	+	
<u>hala</u>	'to say'	0	+		
<u>poj^bacoj</u>	'to announce' 'to divulgate'	0	+		
<u>ta'we</u>	'to accept' 'to admit'	0	+		
<u>ta'weco^j</u>	<u>-iba^h</u> 'to recognize' 'to admit'	0	+	+	
II. <u>Verbs of Mentation:</u>					
<u>aco^j</u>	<u>yi^h</u> <u>-c'ul</u> 'to think a lot about'	0	+	+	
<u>a' pensar</u>	'to think'	0	+	+	
<u>a' yulu^j</u>	<u>-c'ul</u> 'to believe'	0	+	+	
<u>ec'le</u>	<u>yi^h</u> <u>-c'ul</u> 'to forget'	S	+	+	
<u>ham</u>	<u>-alni</u> 'to think'	0	+	+	
<u>hobcat^h</u>	'to invent' 'to make up'	0	+	+	
<u>nan</u>	<u>-u</u> 'to remember'	S	+	+	
<u>occan</u>	(<u>lemna</u>) <u>yi^h</u> <u>-c'ul</u> 'to decide'	S	+	+	
<u>tit</u>	<u>yul</u> <u>-c'ul</u> 'to remember'	S	+	+	
<u>to</u>	<u>nahul</u> <u>-u</u> 'to forget'	S	+	+	

		Function of CS	CS#1	CS#2	CS#3
III. <u>Verbs of Knowledge:</u>					
<u>abchayi</u>	'to discover'	0	+	+	
<u>cuyu</u>	'to teach'	0	+	+	
	'to learn'				
<u>ohtaj</u>	'to know'	0	+	+	
<u>ohtajte</u>	'to learn'	0	+	+	
	(get to know)				
<u>txumu</u>	'to understand'	0	+	+	
IV. <u>Verbs of Emotion:</u>					
<u>c'ay -c'ul</u>	'to be surprised'	SC		+	
<u>nanoni</u>	'to fear'	SC		+	
<u>oc yih suc'al</u>	'to be taken by surprise'	SC		+	
<u>ok -c'ul</u>	'to do a favor'	SC		+	
<u>tac -c'ul</u>	'to empathize'	SC		+	
<u>tzalayi</u>	'to rejoice'	SC		+	
<u>tz'a' -c'ul</u>	'to be sad'	SC		+	
<u>xiwi</u>	'to be afraid'	SC		+	
V. <u>Verbs of Perception:</u>					
<u>abe</u>	'to sense'	0	+	+	
	'to hear'				
<u>ila</u>	'to see'	0	+	+	
VI. <u>Verbs of Desire:</u>					
<u>ay -ala'</u>	'to want'	0	+	+	
<u>ay -gana</u>	'to desire'	0	+	+	
<u>cha -wi'</u>	'to feel like'	0	+	+	
<u>je -c'ul</u>	'to like'	0	+	+	

		Function of CS	CS#1	CS#2	CS#3
	<u>kan -c'ul</u>	'to like'	0	+	+
	<u>oche</u>	'to like'	0	+	+
VII. <u>Verbs of Movement:</u>					
	<u>bey</u>	'to go/walk'	SC	+	+
	<u>ec'</u>	'to pass'	SC	+	+
	<u>oc</u>	'to enter'	SC	+	+
	<u>tit</u>	'to come'	SC	+	+
	<u>to</u>	'to go'	SC	+	+
VIII. <u>Causative Verbs:</u>					
	<u>cache</u>	'to prevent'	SC	+	+
	<u>cha</u>	'to allow' 'to let'	SC	+	+
	<u>chej</u>	'to send/order'	SC	+	+
	<u>ch'ilba</u>	'to insist'	SC	+	+
	<u>iptze</u>	'to force'	SC	+	+
	<u>kan</u>	'to demand'	0	+	+
	<u>tubte</u>	'to induce'	SC	+	+
IX. <u>Aspectual Verbs:</u>					
	<u>bejacanoj</u> TV	'to stop/quit'	0	+	
	<u>c'atz'la</u> TV	'to almost do'	0	+	
		'to escape from'			
	<u>iche</u> TV	'to start'	0	+	+
	<u>ichi</u> IV		S	+	
	<u>laha</u> TV	'to finish'	S	+	
	<u>lahwi</u> TV		U	+	
	<u>tati</u> IV	'to end'	S	+	
	<u>tzabicoj</u> TV	'to start'	0	+	

Function
of CS CS#1 CS#2 CS#3

X. Adjectives:

<u>ay niman</u> 'difficult'	S		+
<u>c'ul</u> 'good'	S		+
<u>mach niman</u> 'easy'	S		+
<u>matzwalil</u> 'bad'	S		+
<u>subutaj</u> 'easy'	S		+
<u>tiĥan</u> (ye) 'sure'	S		+
<u>tx'oj</u> 'bad'	S		+
<u>xiciltaj</u> 'forbidden'	S		+
<u>ya</u> 'painful'	S		+
<u>ya'taj</u> 'difficult'	S		+
<u>yilal</u> 'necessary'	S		+

XI. Idiomatic ExpressionsA. Sentential objects

<u>cha -wi</u> 'to feel like, to not mind'
<u>hal -anma</u> 'to have a premonition, to have a feeling that'
<u>je -c'ul</u> 'to want, to accept'
<u>kan -c'ul</u> 'to want'

B. Sentential subjects

<u>ayc'aytij -c'ul</u> 'to decide, to convince oneself'
<u>c'ayiloj -c'ul</u> 'to be surprised'
<u>ok -c'ul</u> 'to do a favor'
<u>tac -c'ul</u> 'to be sad'
<u>tubxi -c'ul</u> 'to think about, to consider'
<u>tza' -c'ul</u> 'to be very sad, to empathize'

C. PP-SS

<u>ec' yiĥ -c'ul</u> 'to cross one's mind'
<u>occan yiĥ -c'ul</u> 'to decide, to think'
<u>tit yul/yiĥ -c'ul</u> 'to remember'

D. PP-SO

<u>ata'we yul -ti</u> 'to commit oneself, to promise'
<u>ata'wecoj -ibaĥ</u> 'to promise, to accept'
<u>awacoj yiĥ -c'ul</u> 'to be preoccupied, to think'
<u>a' tet -anma</u> 'to feel like, to enjoy'

Appendix D. Abbreviations

A1/2/3	absolutive 1/2/3
abs	absolutive
adj	adjective
adv	adverb
asp	aspect
aug ^t	augment
case assign	case assignment
CAUS	causative
cl	classifier
compl	complementizer
conj	conjunction
coord	coordination
CS#1/2/3	complement sentence #1/2/3
DEL	deletion
dem	demonstrative
dir	directional
E1/2/3	ergative 1/2/3
erg	ergative
EXH	exhortative
fut	future
IMP	imperative
indef	indefinite
IV	intransitive verb
IO	indirect object
MOD	modal
N	noun
N Cl	noun classifier
N Cl Del	noun classifier deletion

N Cl Drop	noun classifier drop
NEG	negation
NP	noun phrase
num	numeral
obl	obligation
O/obj	object
part	particle
PASS	passive
pers pro	personal pronoun
pl	plural
poss	possessive
PP	prepositional phrase
pred	predicate
prep	preposition
prog	progressive
Pron Del	pronominalization deletion
refl	reflexive
Rel Del	relative deletion
S/subj	subject
SC	sentence complement
suff	suffix
TRANS/TV	transitive verb
V/vb	verb
1p	first person

Bibliography

- Aissen, Judith
1974 "The Syntax of Causative Constructions."
Ph.D. dissertation, Harvard University.
- Anderson, Stephen
1972 "Prosentential Form and Their Implication for
English Sentence Structure." Indiana Linguistic
Club. Indiana University, Bloomington.
- Bierwisch, M., and K. Heidolph, eds.
1971 Recent Developments in Linguistics. The
Hague: Mouton.
- Breitborde, L. B.
1973a "Reference and Address in Jacaltec: Linguistic
Competence in Social Situations." M.A.
thesis, Department of Anthropology, University
of Rochester.
1973b "Selection and Setting in Jacaltec Noun
Classifier Usage." Paper presented at the
summer meeting of the LSA, Ann Arbor, Michigan.
- Bresnan, Joan
1972 "Theory of Complementation in English Syntax."
Ph.D. dissertation, MIT.
- Chomsky, Noam
1957 Syntactic Structures. The Hague: Mouton.
- Church, Clarence and Katherine
1961 "Jacaltec Noun Phrase." In Mayan Studies.
S.I.L. Publications. Norman: University of
Oklahoma Press.

Craig, Colette G.

1974 "A Wrong Cyclical Rule in Jacaltec?" In Papers from the Tenth Regional Meeting of the Chicago Linguistic Society, pp. 103-116.

1976a "Properties of Basic and Derived Subjects in Jacaltec." In Subject and Topic, ed. C. Li. New York: Academic Press, Inc.

1976b "Disambiguations and Hierarchies in Jacaltec." In Mayan Linguistics, vol. 1, ed. M. McClaran. American Indian Studies Center: University of California, Los Angeles.

1976c "A Jacaltec Comedia." In IJAL Native American Texts Series Mayan Issue I, ed. L. Furbee-Losee. Chicago: University of Chicago.

Craig, Colette G., and John Robertson

1971 "Pronominal Distribution in Mayan." Unpublished manuscript.

Day, Christopher

1973a The Jacaltec Language. Indiana University Publications, vol. 12. Bloomington: Indiana University Press.

1973b "The Semantics of Social Categories in a Transformational Grammar of Jacaltec." In Meaning in Mayan Languages, ed. Monro S. Edmonson. The Hague: Mouton.

1976 "Someone Else's Dog: A Jacaltec Story." In IJAL Native American Texts Series. Mayan Issue I, ed. L. Furbee-Losee. Chicago: University of Chicago.

In preparation: "A Dictionary of the Jacaltec Language."

Emonds, John

1970 "Root and Structure-Preserving Transformations." Ph.D. dissertation, MIT.

Furbee, Louanna

1974 "Identity in Gapping and the Lexical Insertion of Verbs." Linguistic Inquiry V:2.

Greenberg, Joseph

1963 "Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements." In Universals of Language, ed. Joseph Greenberg. Cambridge, Mass.: MIT Press.

Hale, Kenneth

1973 "Person Marking in Walbiri." In Festschrift for Morris Halle, eds. S. Anderson and P. Kiparsky. New York: Holt, Rinehart, and Winston.

Hankamer, Jorge

1971 "Constraint on Deletion in Syntax." Ph.D. dissertation, Yale University.

1973a "Unacceptable Ambiguity." In Linguistic Inquiry IV:1, pp. 17-68.

1973b "Why There Are Two than's in English." In Papers from the Ninth Regional Meeting of the Chicago Linguistic Society, pp. 179-192.

Jacobs, Roderick, and Peter Rosenbaum, eds.

1970 Readings in Transformational Grammar. Waltham, Mass.: Ginn and Co.

Kaufman, Terrence

1974 "Issues in the Classification of the Mayan Languages, Substantive and Otherwise." Paper presented at the annual meeting of the American Anthropological Association, Mexico City.

- Keenan, Edward, and Bernard Comrie
 1972 "Noun Phrase Accessibility and Universal Grammar." Paper delivered at the winter meeting of the LSA, Atlanta, Georgia.
- Klima, Edward
 1964 "Negation in English." In The Structure of Language: Readings in the Philosophy of Language, ed. J. Fodor and J. Katz. Englewood Cliffs, N.J.: Prentice-Hall.
- Kuno, Susumo
 1972 "Pronominalization Reflexivization and Direct Discourse." Linguistic Inquiry III:2.
 1974 "The Position of Relative Clauses and Conjunctions." Linguistic Inquiry V:1.
- Kuno, Susumo, and Jane Robinson
 1972 "Multiple Wh-Questions." Harvard University Computation Laboratory, Cambridge, Mass.
- La Farge, Oliver, II, and Douglas Byers
 1931 The Year Bearer's People. Tulane University Middle American Research Series, no. 3. New Orleans: Tulane University Press.
- Lansing, Donald
 196? Vocabulario de Jacalteca-K'anjob'al-Migueleno con apéndice gramatical K'anjob'al-Jacalteca. Mimeographed.
- Mendez, Antonio Feliciano
 196? Gramática Jacalteca. Mimeographed.
- Perlmutter, David
 1970 Deep and Surface Structure Constraints in Syntax. New York: Holt, Rinehart, and Winston.

- 1970 "The Two Verbs Begin." In Readings in Transformational Grammar, ed. R. Jacobs and P. Rosenbaum.
- 1971 "On the Article in English." In Recent Developments in Linguistics, ed. M. Bierwisch and K. Heidolph.
- Perlmutter, David, and Paul Postal
 Forthcoming: "Relational Grammar."
- Postal, Paul
 1969 "On So-Called 'Pronouns' in English." In Modern Studies in English: Readings in Transformational Grammar, ed. Reibel and Schane.
 1970 "Coreferential Complements Subject Deletion." Linguistic Inquiry I:4.
- Quicoli, Carlos
 1972 "Aspects of Portuguese Complementation." Ph.D. dissertation, SUNY at Buffalo.
- Reibel, David, and S. Schane, eds.
 1969 Modern Studies in English. Englewood Cliffs, N.J.: Prentice-Hall.
- Robertson, John
 1976 "The Status of the Mayan Pronoun." Ph.D. dissertation, Harvard University.
- Rosenbaum, Peter
 1967 The Grammar of English Predicate Complement Constructions. Cambridge, Mass.: MIT Press
- Ross, John R.
 1967 "Constraint on Variables." Ph.D. dissertation, MIT. Indiana University Linguistic Club.
 1972 "Act." In Semantics of Natural Languages, ed. D. Davidson and G. Harman, pp. 70-126.

Dordrecht, Reidel.

Smith, Carlota

- 1969 "Ambiguous Sentences with And." In Modern Studies in English, ed. D. Reibel and S. Schane.

Steele, Susan

- 1973 "The Positional Tendencies of Modal Elements and Their Theoretical Implications." Ph.D. dissertation, University of California at San Diego.

Stratmeyer, Dennis and Jean

- 1971a (1) ha' ton hune' yabil ti' chiyij tz'onol,
la Tuberculosis.

(2) c'ul ta chijuc' yal yim no' wacaʔ,
Cuidado con La Leche.

(3) haca' ye ha ha' mat chi'anico coyabil,
Agua Pura.

Health Pamphlets, Unión Panamericana,
Secretaria General de la Organización de
los Estados Americanos, Washington, D.C.

- 1971b caw c'ul jaben hune' tzoti' ti' tzibtebilcano
yu naj san marcos, El Santo Evangelio Según
San Marcos. Sociedad Bíblica en Guatemala,
C.A.

- 1972 "Jacalteco Texts." In According to Our
Ancestors, Folk Texts from Guatemala and
Honduras. Norman, Okla. Summer Institute of
Linguistics.