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INVERSION AND OTHER TOPICS IN THE
GRAMMAR OF OLUTEC (MIXEAN)

by

ROBERTO ZAVALA

A DISSERTATION

Presented to the Department of Linguistics
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

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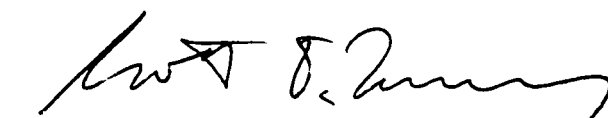


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An Abstract of the Dissertation of
Roberto Zavala for the degree of Doctor of Philosophy
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Title: INVERSION AND OTHER TOPICS ON THE GRAMMAR OF OLUTEC
(MIXEAN)

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This dissertation is a study of four morphosyntactic topics on the grammar of Olutec, a Mixean language spoken in the state of Veracruz, Mexico: 1) ergativity and inversion; 2) nuclear serial verbs; 3) noun-incorporation; and 4) applicatives. This work also offers a grammatical overview of the major typological features of the language (word order and word order type) and its major construction types.

Olutec exhibits an ergative system that typological studies on ergativity have not considered. There are three person proclitic sets. One set is ergative in independent clauses and absolutive in dependent clauses. A second set is absolutive in independent clauses, while a third set is ergative in dependent clauses. The language also exhibits an inverse vs. direct alternation for both transitive and intransitive clauses. In Olutec, all the semantic arguments

selected by the verb are considered in the coding of a clause as inverse or direct. An inverse alternation triggered by the status of non-syntactic arguments has not been previously reported in the literature on inverse languages.

Serial verb constructions of the nuclear type were the source of several of the inflectional morphemes that appear in the Olutec verb and that make the language highly polysynthetic. The etymological source and path of development of these markers is investigated in detail.

Olutec exhibits the four major types of noun incorporation investigated by Mithun (1984). I show that in addition to themes and locations, Olutec incorporates agents. This pattern is almost unknown cross-linguistically. The noun incorporation construction with agents and themes also shows that the inverse alternation is triggered by semantic arguments.

Olutec has six applicative morphemes that allow the coding of thematically peripheral participants as pragmatically salient arguments. This study shows that under specific circumstances, the applicative increases the verb valency, in others, it rearranges the argument structure of the clause, whereas still in others, it does not affect either the valency or the original argument structure of the base verb, but rather, only registers that the clause

contains a pragmatically salient extra-thematic participant that is still non-core.

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CHAPTER I

INTRODUCTION

0. What is This Study About?

This work is a study of four morphosyntactic topics in the grammar of Olutec: 1) ergativity and inversion; 2) nuclear serial verbs; 3) noun-incorporation and denominalization; and 4) applicatives. This work also offers a grammatical overview of the major typological features of the language.

Olutec, also known in the literature as Oluta Popoluca, is one of the ten languages of the Mixe-Zoquean family. Nowadays only nine of them are currently spoken. Olutec is spoken in Oluta, a town located in the south of the state of Veracruz, Mexico. There are approximately twenty fluent speakers of the language, all of them older than seventy years. There are also a few semi-speakers and rememberers who know only a few words or isolated phrases.¹ All the speakers and semi-speakers are also fluent in Spanish.

The name Popoluca was given by Nahuatl speakers to a number of Mixe-Zoquean languages spoken in the South of Veracruz with reference to people who speak

"unintelligibly." The name was adopted by Spaniards in the 16th Century and since then the speakers of four different languages are referred to as Popolucas by non-natives. The four languages known as Popoluca are: Oluta Popoluca (Mixean), Sayula Popoluca (Mixean), Sierra Popoluca (Zoquean), and Texistepec Popoluca (Zoquean). The native people who still speak Olutec refer to their language as ya:kʔawü (ya:k 'native' and ʔaw 'mouth, language') 'the native language.'

1. The Mixe-Zoquean Language Family and Olutec

Nine of the ten Mixe-Zoquean languages are still spoken nowadays in southern Mexico in the states of Veracruz, Chiapas, Tabasco and Oaxaca (Foster 1969, Thomas 1974). According to Nordell (1962), Kaufman (1963, 1964) Kaufman and Justeson (2000), and Wichmann 1995, the Mixe-Zoquean language family has two branches, the Zoquean branch and the Mixean branch. Olutec forms a subgroup by itself within the Mixean branch (Kaufman and Justeson 2000, Wichmann 1995).

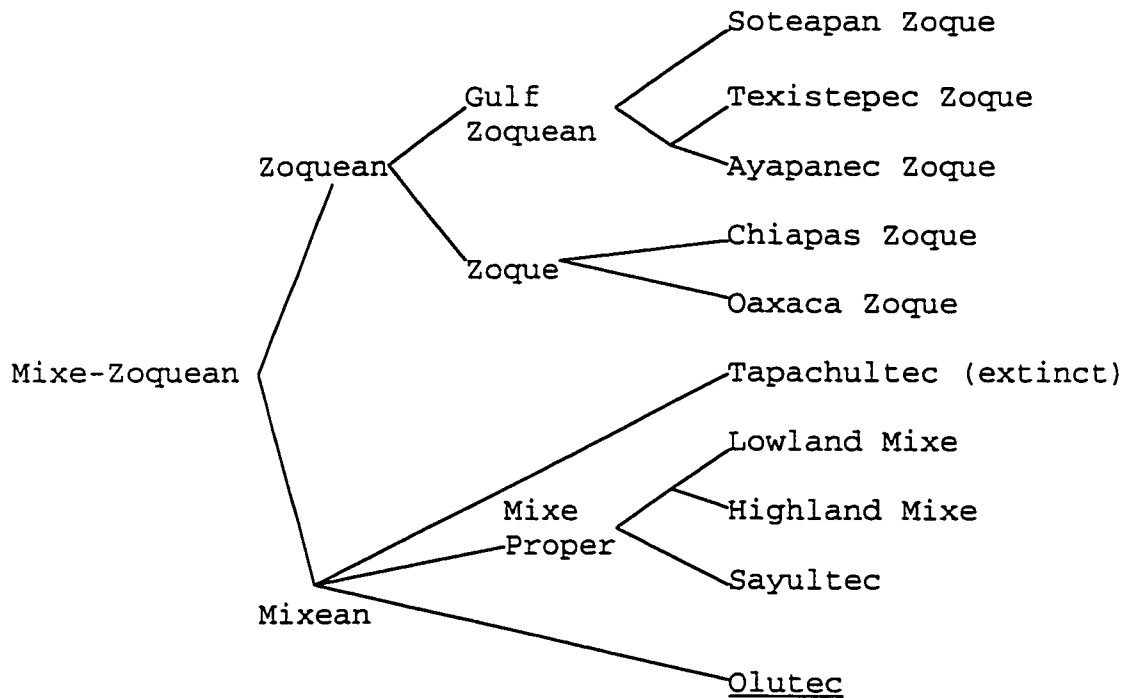


Figure 1. The Mixe-Language Family (Based on Kaufman and Justeson 2000)

Kaufman (1963) and Wichmann (1995) have done extensive research on the genetic relation among the different languages of this family.

Oluta, the town where Olutec is spoken, is surrounded by other towns where three Mixe-Zoquean languages and one Uto-Aztecan language are spoken. Texistepec Zoque, Soteapan Zoque and Nahuatl are spoken to the north, whereas Sayultec is spoken to the south. A few speakers of Lowland Mixe and

Juchitan Zapotec live in Oluta but none of them speak their language in town.

2. Previous Research on Olutec

When I first began doing fieldwork on Olutec in the summer of 1994, little information was available on the language. Calderon (1908) published a list of 273 Olutec words out of which 223 were poorly transcribed. The list was also reproduced in Lehmann (1920). By 1994 the only linguistic work available on Olutec was Clark's Olutec bilingual dictionary (Diccionario Popoluca de Oluta) published in 1981. This work contains approximately 2500 Olutec words grammatically classified. It also includes a 43 page sketch of the phonology and morphology.

I began working on Olutec in the summer of 1994 under the auspices of the MesoAmerican Languages Documentation Project led by Terrence Kaufman and John Justeson. One of the objectives of this project is the production of comprehensive dictionaries of all the Mixe-Zoquean languages spoken today. The lexicographic research that I did on Olutec has been published on-line at the project site

<http://www.albany.edu/anthro/maldp>. This is a searchable trilingual database originally developed as a Shoebox database (Davis and Wimbish, 1993). It contains approximately 6000 entries of affixes, roots, stems and lexical words coded by grammatical category. I have also published some articles on some of the morphosyntactic features of Olutec, as well as some texts (Zavala 1999, fc(a), fc(b), fc(c)).

3. Fieldwork

Fieldwork took place during nine field seasons between 1994 and 2000, for a total of approximately eighteen months in the field. During my first field trip in 1994, I worked on the lexicographic research with five speakers, two of whom accompanied me to the town of Fortin de las Flores, in the north of Veracruz. I came back to Oluta in the Fall of 1994 and lived there for nine months. Additional short and long visits happened from the beginning of 1996 to the summer of 2000 under the auspices of the Max Planck Institute for Psycholinguistics and the MesoAmerican Language Documentation Project. During the time spent in the

field I was able to work with 24 speakers. My main Olutec teacher was Antonio Asistente, but I also worked regularly with Rafaela Santander, Lorenzo Molinat, Inez Díaz, Alfredina Asistente, Bonifacio Canuto, Jesús de los Santos, and Victor González. Other speakers that contributed with texts and conversations were Mario Melchor, Agripino Molinat, Claudio Pavón, Ernesta Santander, Criserio Molinat, Ilario González, Andrés Puchulín, Nicolasa de los Santos, Josefa de los Santos, Otilio de Dios, Ruperta Pérez, Tomás de los Santos, Ilaria Cándido, Hermelindo Agapito, Alfonso Tomás, and Bartolo Flor.

4. Methods and Data

When I started doing lexicographic work, I immediately noticed that the direct interview type of work was not an appropriate technique for gathering good data since the speakers never felt comfortable with this procedure. Thus, during my second trip, I recorded as many texts and conversations as possible. At the end of the eighteen months in the field, I had collected more than 80 hours of narratives, procedural texts, conversations and data

gathered using stimuli designed by myself and other members of the Cognitive Anthropology Research Group (now Language and Cognition Group) at the Max Planck Institute for Psycholinguistics, Nijmegen (Danziger and Hill 1993, Wilkins 1993, Bowerman 1993, Wilkins 1995). I also elicited two "Chicken Stories" with the same video used by Givon's (1991) experimental project. I also obtained two "Pear Stories" with the video designed by Chafe (1980) and several "Frog Story" narratives, based on the picture book 'Frog, Where Are You' by Mercer Mayer following the procedure suggested by Slobin (1993).

I have transcribed and analyzed about 50 hours of the data obtained (80% of which are narratives and conversations). I did the transcriptions by myself consulting with several speakers during the process. The textual database on which this study is based comprises more than 50,000 clauses.

The data was entered and glossed in Shoebox, although I also used data that are still written in notebooks or typed but that have not been glossed.

5. Conventions and Symbols Used in the Examples

The majority of the examples in this work come from texts and conversations. After the gloss of each example, a code indicating the location of the particular token within my database is provided. Elicited examples do not have any code following the translation. The examples are presented in four lines. The first line is a phonemic transcription which shows elisions and contractions that were produced by the speaker. The second line shows the base forms of the morphemes occurring in the first line. The third line provides glosses for every morpheme. The list of grammatical abbreviations and other conventions used in the third line appear in Appendix A. The fourth line is a free translation of the first line. As an illustration consider this example:

- (1) yankoj tantijaʔn
 yaʔ+mü=koj tan= tij -aʔn
 here =just Al(ABS)=stay-IRR D
 'I am going to stay right here.' {olu5/111}

5.1 Phonological Inventory

The examples are transcribed using a practical orthography designed by Kaufman for the documentation of Mixe-Zoquean languages. There is only one difference between the practical orthography designed by Kaufman and the one I use in this work. In Kaufman's orthography, which I adopted in my dictionary, the glottal stop is written with the cardinal number seven, while in this work it is written using the IPA symbol /ʔ/. Other symbols used in this practical orthography are: ü = /ə/, x = /ʃ/, tz = /ts/, ch = /tʃ/, j = /h/, rr = /r/. Vowel quantity is represented with a colon following the vowel.

Olutec has 6 short vowels and six long vowels:

i, i:	ü, ü:	u, u:
e, e:		o, o:
	a, a:	

There are 16 native consonants:

p	t		k	ʔ
m	n			
	s		x	j
	tz		ch	
w			y	
	l	r	rr	

The sound /ch/ is the reanalysis of the sequence /tz+y/. The phoneme /s/ only occurs in very few native words and there is the possibility that all of these words were borrowed from Nahuatl. The phonemes /l/, /r/ and /rr/ only occur in onomatopoeic words, sound symbolic words and loan words. The sounds /b/, /d/, /g/ and /f/, which are not listed in the previous chart, only occur in borrowed words from Spanish.

6. Outline of the Study

Chapter 2 is a general introduction to the language. This grammatical sketch provides information on word order, word order type, word classes, and a survey of three different types of constructions (question formation, auxiliary plus verb, and complement clauses).

Chapter 3 deals with the phenomena of ergativity and inversion and includes a discussion of the complex pronominal system and the aspect system before considering the inverse marking in both independent and dependent clauses. Olutec exhibits an ergative system that typological studies on ergativity have not considered to this day. There are three person proclitic sets: one set functions as ergative in independent clauses but as absolutive in dependent clauses; a second set functions as absolutive in independent clauses, while the third set functions as ergative in dependent clauses. The language also exhibits an inverse vs. direct alternation for both transitive and intransitive clauses. In Olutec, all the semantic arguments selected by the verb are considered in the coding of a clause as inverse or direct. An inverse alternation triggered by the status of non-syntactic arguments has not been previously reported in the literature on inverse languages.

Chapter 4 is a study of serial verb constructions of the core or nuclear type also known in Amerindian linguistics as verb+verb or simply verbal compounds. These constructions were the source of several of the inflectional morphemes that appear on the Olutec verb and that make the

language highly polysynthetic. The etymological source and path of development of these markers is investigated in detail.

Chapter 5 is a study of noun incorporation (NI) and noun denominalization structures. It documents, as thoroughly as possible, the various types of NI constructions found in Olutec as well as other denominalizing constructions that have been treated as canonical incorporating constructions in Eskimo-Aleut languages. I use the Olutec data to examine the validity of some of the claims advanced by typologists and syntacticians with respect to NI. The different Olutec NI constructions are classified using the typology suggested by Mithun in several of her works. This study of Olutec shows various NI constructions which have not been discussed in the literature dealing with NI. Among those are NI constructions with non-agentive bivalent verbs, i.e. verbs which include a theme and a location/experiencer in their argument structure. Olutec also incorporates agents of transitive verbs.

The last chapter, 6, is a study of six applicative morphemes that allow the coding of thematically peripheral participants as pragmatically salient arguments. The various

constructions investigated in chapter 6 are treated as applicative constructions because they exhibit a distinctive functional and structural profile and because they are marked by a set of morphemes that belong to two distinct paradigms. The verbs of applicative constructions bear an applicative morpheme any time a peripheral participant is questioned, relativized, focused or when it is treated as a topic within a clause-chaining construction. Neither the changes in valency nor the argument structure rearrangements have been taken as defining features of Olutec applicative constructions. Thus, the main claim supported by this study on applicatives is that the basic function of applicatives is to indicate that the applied argument has greater discourse saliency or topic continuity than would otherwise be expected.

The appendix of this dissertation contains two representative texts and one piece of conversation that were part of my data base.

Notes

¹ For a classification of speakers according to their linguistic ability in the case of endangered languages, see Campbell and Muntzel (1989) and Grinevald (1997).

CHAPTER II

A GRAMMATICAL SKETCH

0. Introduction

The purpose of this chapter is to provide a general overview of the main grammatical features found in Olutec. This is necessary for three reasons. First, there is no other treatment of Olutec syntax to which I can refer the reader. Second, the understanding of the grammatical and typological features illustrated here is necessary to be able to follow the argumentation of later chapters. And third, since most of the examples cited in this work come from a corpus of narrative texts and natural conversations, they contain grammatical features that in many cases are irrelevant to the particular point discussed. This chapter therefore explains the essential aspects of the grammar. It needs to be understood that this is just a grammatical sketch in which many interesting grammatical topics are dealt with only in a cursory manner.

The first section deals with word order features such as they are understood in typology. The second section deals with the distinctive characteristics of major and minor word classes. The third section is a survey of three

constructions: question formation, auxiliary constructions and complement constructions.

1. Word Order and Word Order Characteristics

Olutec is a flexible word order language. The only participant of intransitives, the "S" in Dixon's (1979, 1994) terminology, may occur before or after the predicate (V). The S occurring in either position may be a semantic agent or a semantic theme. The verb nax 'pass, cross' in (1a) and (2a) is agentive; the verb ?o:k 'die' in (1b) and (2b), and the non-verbal predicates tükaw 'man' (1c) and tzin+tzofy+e 'shameless' (2c) are non-agentive.'

(1) S-V

- a. porke jamaj ja:mu tüwi?k ?inaxa?n
 porke jamaj ja:mu tüw+ik ?i= nax -a?n
 because that wind hard A3(ABS)=pass-IRR
 'Because that wind is going to blow hard.'
 {koya/54}
- b. pero mintükaw wepak ?i?o:ki
 pero min= tükaw wew+pi=ak ?i= ?o:k-i
 but A2(PSR)=father there =AN A3(ABS)=die -COMD
 'But your father died there.' {aand/606}
- c. mi:sü mitükaw
mi:tz mi= tükaw
 you B2(ABS)=father
 'You are a father.' {lm3/606}

(2) V-S

- a. japomü, tüwi?k ?inaxa?n ja:mu
 japo:m tüw+ik ?i= nax -a?n ja:mu
 tomorrow hard A3 (ABS)=pass-IRR wind
 'Tomorrow, the wind is going to blow hard.'
 {koya/48}
- b. ?i?o:kne:k tan?apu
 ?i= ?o:k-nü -i =k tan= ?apu
 A3 (ABS)=die -already-COMD=AN A1 (PSR)=grandfather
 'My grandfather died.' {vg3/174}
- c. tzintzo?ye tu?k mixtuna?w yükü?k
 ø= tzin+tzoye tuk mixtun-na?aw yükük
 B3 (ABS)=shameless one cat -AUGM black
 'The black cat is shameless.' {aand/115}

When the two arguments of canonical monotransitive² verbs are expressed by overt nominal expressions, all possible combinations are attested. "A" stands for the agent or actor (Dixon 1979, 1994), and "PO" stands for the primary object of the clause, i.e., the theme of monotransitives and the recipient of ditransitives (Dryer 1986).

(3) a. A-PO-V

?ü:s kowanunak tanko:pe
 ?ü:tz kow+an-?unak tan= kow -pe
 I drum -DIM A1 (ERG)=drum-INCI.T
 'I play the little drum.' {aandc/257}

b. PO-A-V

tzu?chinü:jü ?ü:s tankaype
 tzu?tz+i+nü: ?ü:tz tan= kay-pe
 beef_broth I A1 (ERG)=eat-INCI.T
 'I consume beef broth.' {rspf2/545}

c. A-V-PO

jeʔk ʔimü:te:ku ʔikaype xükü
 jeʔ =k ʔi= mü:+te:ku ʔi= kay-pe xük
 that=AN A3(PSR)=master A3(ERG)=eat-INCI.T beans
 'His master is eating beans.' {aand/61}

d. V-PO-A

ʔini:wixuk jeʔ piyu jeʔ majaw
 ʔi= ni:+wix-u =k jeʔ piyu jeʔ majaw
 A3(ERG)=pluck -COMI=AN that chicken that woman
 'That woman plucked that chicken.' {rsch2/176}

e. V-A-PO

dejemü takayi jeʔk mu:xi jeʔk majawü
 de+jeʔ+mü ta= kay-i jeʔ =k mu:xi jeʔ =k
 then C3(ERG)=eat-COMD that=AN bird that=AN

majaw

woman

'Then, that bird ate that woman.' {rsch2/371}

f. PO-V-A

wenaʔkxe:k tantzü? kepüwa? ja:tuk yoʔjwa
 wew+naʔkxej=k tan= tzü?
 then =AN A1(PSR)=mother

∅= kep -ü -w =ja? ja:+tuk yoʔjwa
 B3(ABS)=look_for-INV-COMI=DEF another man
 'Then, another man looked for my mother.'
 {rp3/717}

The only two types of clauses considered when discussing the basic word order of the language will be the intransitive and monotransitive types. The other types ignored here are ditransitive constructions and constructions with extended intransitive verbs, i.e., verbs

that take both a theme and a location/experiencer/possessor as core arguments.

Following Dryer (1997), it will be assumed that the basic word order of a language can be established on the basis of frequency. Under this frequency criterion, a particular word order combination is considered basic in a language if it is at least twice as frequent in texts as the other(s) with which it is contrasted (Dryer 1997).

For the study of Olutec word order, I examined the patterns found in a collection of narrative texts that were provided by eight different speakers. The sample consisted of 47 texts containing a total of 5,282 monotransitive and intransitive clauses (ditransitive and extended intransitive clauses were not considered in the counts).

The data from the sample show that not all arguments selected by the verb are expressed by nominal expressions (pronouns or nominal phrases) (Table 1).

TABLE 1: Overt Nominal Expressions with Transitive and Intransitive Verbs

	<u>Transitive</u>		<u>Intransitive</u>		<u>Total</u>
2 overt arguments	265	14%	---		265
1 overt argument	1010	53.5%	1596	47%	2606
0 overt argument	615	32.5%	1796	53%	2411
<u>Total</u>	1890		3392		5282

From the total of 5,282 clauses, 2,411 (46%) do not have any overt core nominal. Table 1 also shows that only 14% of transitive clauses carry both core nominal expressions and that only 47% of intransitive clauses bear an overt nominal functioning as subject.

Among the clauses with two overt nominal expressions, the most common word order is A-V-PO, with the frequencies as shown in Table 2.

TABLE 2: Transitive Clauses with Two Overt Nominal Expressions

<u>A-V-PO</u>	166	<u>62%</u>
PO-V-A	31	12%
V-A-PO	29	11%
V-PO-A	16	6%
A-PO-V	12	5%
PO-A-V	11	4%
<u>Total</u>	265	

The placement of the A and PO of transitive clauses shows two strong tendencies. One is that the great majority of As occupy a preverbal position. The other is that both PO and S have strong tendency to occupy a postverbal position, as shown in (Table 3). The PO of transitive verbs is postverbal in 77% of the cases, while the S of intransitive verbs is postverbal in 78% of the cases.

TABLE 3. Pre- vs. Postverbal Order of A, PO,
and S Overt Nominal Expressions

	<u>A</u>		<u>PO</u>		<u>S</u>	
Preverbal	321	<u>64%</u>	234	23%	347	22%
Postverbal	184	<u>36%</u>	801	<u>77%</u>	1249	<u>78%</u>
<u>Total</u>	505		1035		1596	

Thus, in terms of frequency, Olutec can be classified as an A-V (64%), V-PO (77%) and V-S (78%) language. This patterning which regroups PO and S is typical of an ergative word order pattern.

1.1 Verb Final Characteristics

Although the V-PO pattern is three times as common as the verb final PO-V pattern, Olutec exhibits nine structural features that are commonly found in verb final languages as per Greenberg 1963, Comrie 1981: 80-97, Mallinson and Blake 1981, Campbell, L. et al. 1986: 547-548, Dryer 1991, 1997, inter alia.

First, the majority of the Olutec adpositions (in terms of tokens and types) are postpositions:

(4) N-Postposition

- a. ?ijamatik kuyjotpi
 ?i= jamat -i =k kuy -jot -pi
 A3(ABS)=arrive-COMD=AN tree-inside-LOC
 'He came to the forest.' {miel/15}
- b. kawa:yuwinmük ?i?iti
 kawa:yu-win-mü =k ?i= ?it -i
 horse -top-LOC=AN A3(ABS)=exist-INCD
 'He is on the horse.' {diab2/18}

Second, the Olutec subordinator ?itü follows the adverbial clause:

(5) Adverbial Clause precedes Subordinator

- jemak ?iminküxno tzu:?iyu?a? ?itü
 je?+mü=ak ?i= mi:n?-küx-nü -i
 there =AN A3(ABS)=come -PL3-already-COMD
- tzu:+?i:y? -u -?a? ?itü
 become dark-COMI-PERF SUBDR
 'They had already come there when it had become dark.' {id3/103}

Third, in the majority of cases, the nominal expression referring to the possessor (PSR) precedes the nominal expression referring to the possessum (PSM).³

(6) Possessor precedes Possessum

- a. wep ta?oyi tantüpna?k ?itükmü
 wew+pi tan= ?oy -i
 there A1(ABS)=exist-COMD
- | | | | |
|------------------|--------|--------------------|---------|
| <u>PSR</u> | | <u>PSM</u> | |
| tan= | tüpnak | ?i= | tük -mü |
| A1(PSR)=daughter | | A3(PSR)= house-LOC | |
- 'I was there, in my daughter's house.' {aand/307}

- b. $\frac{\text{PSR}}{\text{je}^?k \text{ chu } \text{?agapi:to}} \frac{\text{PSM}}{\text{?imajaw}}$
 $\frac{\text{je}^? =k \text{ chu } \text{?agapi:to}}{\text{that=AN Mr. Agapito}} \frac{\text{?i= majaw}}{\text{A3(PSR)=woman}}$
 'Mr. Agapito's wife.' (aandb/151)

Fourth, in nominal compounds, the dependent noun always precedes its head. Unlike PSR-PSM phrases, nominal compounds do not bear a possessor proclitic between the dependent and the head of the compound.

(7) Dependent Noun precedes Head Noun

- | | | | |
|----|---|----|--|
| a. | küpijoko
küpi- joko
firewood-smoke
'smoke from the firewood' | b. | kuy?awkü?x
kuy- ?awkü?x
tree-branch
'branch of a tree.' |
| c. | kafetyu?u?k
kafet- yu?k
coffee-pot
'coffee pot' | d. | kuykawakuyü
kuy+kawak-kuy
mamey- tree
'mamey tree' |
| e. | ?aytükü
?ay- tük
leaf-house
'house made out of leaves' | f. | ?a:kapakü
?a:ka-pak
cheek-bone
'jaw' |
| g. | ta:tzüktü?ni?k
ta:tzük-tü:n?+ik
ear- shit
'earwax' | h. | kajchanü:nü
kajcha- nü:n
spaniard-tortilla
'bread' |
| i. | kawak?akü
kawak- ?ak
banana-skin
'banana peel' | j. | piyunü:jü
piyu -nü:
chicken-water
'chicken broth.' |
| k. | kü?jüpü
kü?- jüp
hand-nose
'finger' | l. | tüko:te:ku
tük- ko:te:ku
house-owner
'owner of the house' |

Fifth, dependent nouns precede relational nouns (grammaticalized body-part nouns encoding the subregion in which a participant is located) (see §2.5.4).

(8) Noun precedes Relational Noun

- a. jemak ʔimiʔn ʔajawimpi
 jeʔ+mü=ak ʔi= mi:nʔ-i ʔaja- win-pi
 there =AN A3(ABS)=come -INCD canoe-top-LOC
 'They were coming there, on top of the canoe.'
 {olu1/98}
- b. tayoxetuni kuyjotpi
 tan= yox+e+tun-i kuy -jot -pi
 A1(ABS)=work -INCD tree-inside-LOC
 'I work in the bushes.' {olu4/29}

Sixth, the main verb is followed by grammaticalized auxiliary and aspectual suffixes. The use of ʔo:k 'die' as a desiderative auxiliary is illustrated in (9a). The use of a phonologically reduced version of wa:nʔ 'want' as an irrealis aspect marker is illustrated in (9b). (See CH. 4, §6 and §7)

(9) Main Verb precedes Auxiliary

- a. jüntükpixüʔk ʔinükxiʔo:ke
 jün+tük-pi =xü=k ʔi= nüx-i -ʔo:k -e
 kitchen-LOC=EV=AN A3(ABS)=go -NMZR-DESID-INCD
 'He wants to go to the kitchen.' {rspf2/640}

- b. mixwinü?pa:ta?n
 mix= winü?+pa:t-a?n
 C2(ERG)=remember -IRRD
 'You are going to remember.' {rp3/789}

Seventh, in noun incorporation constructions, the incorporated noun referring to the PO appears before the verb root (see CH. 5).

(10) Incorporated Noun precedes Verb Root

- a. jumü tankayanto:ke:tü?s
 jumü tan= kay+an-to:k-e -:t -ütz
 where A1(ABS)=food- sell-INCD-PL.SAP-EXCL
 '[...] where we are selling food.' {rs3/77}
- b. te?ej pek yoxtunküpowankoj ja?
 te?ej pek ø= yox+e-tun-küx-pow -a?n
 now trully B3(ABS)=work- do -PL3-again-IRRD
 =koj ja?
 =just 3AN
 'Now, he is going to work again.' {rp3/948}

Eighth, in light-verb constructions, the host noun, host infinitive or host adverb precedes the light verb. In (11), an infinite loan word from Spanish occurs before the light verb tun 'do' (see CH. 5, §4.4).

(11) Host precedes Light Verb

- ja:tu?mi mixtrata:rtunam pro:we
 ja:+tu?mi mix= trata:r-tun-am pro:we
 again C2(ERG)=deal- do -IRRI poor
 'You are going to deal with the poor one again.'
 {rspf2/57}

Ninth, manner adverbs (adverbial predicates) (12a, b), participles (12c), and secondary predicates (12d) precede matrix verbs.

(12) Manner Adverb precedes Matrix Verb

- a. yam pokxpokxna? ?imi?n mü:t ?iwasto?n
 ya?+mü pokx+pokx+na? ?i= mi:n?-i
 here tapping A3(ABS)=come -INCD

 mü:t ?i= waston
 with A3(PSR)=cane
 'Here she was coming tapping with her cane.'
 {aandc/108}
- b. ya:xpak ?imino
 ya:x?+pa=k ?i= mi:n?-nü -e
 shouting=AN A3(ABS)=come -already-INCD
 'He is already coming screaming.' {olu26/102}
- c. ?ü:pikak ta?e:pe
 ?ü:p -ik =ak ta= ?e:p-e
 pile_up-PCP=AN C3(ERG)=see -INCD
 'He saw it piled up.' {lm1/61}
- d. jumej yukmükmasna? ?ijate
 jumej yukmük+matz+na? ?i= jat -e
 how tall A3(ABS)=become-INCD
 'He came out tall.' {lm4/470}

1.2 Verb Initial Characteristics

In addition to the fact that the PO's in natural texts occur more than twice in postverbal position (77% of a total of 1035 tokens, see Table 3), Olutec exhibits six structural features that are typically associated with VO languages.

First, Olutec has one native preposition, mü:t 'with,' and has borrowed three others from Spanish, ?en 'in, on, at,' para 'for, to, towards,' de 'from, of.'

(13) Preposition-N

- a. ta?awxuyi? mü:t noki je? ta:najti
 ta= ?aw+xuy+?i:y?-i mü:t noki je? ta:najti
 C3(ERG)=patch -COMD with paper that sack
 'He patched that sack with paper.' {viaj2/21}
- b. ?ijamatik ?enü je? tükü
 ?i= jamat -i =k ?en je? tük
 A3(ABS)=arrive-COMD=AN at that house
 'He arrived at that house.' {olu26/38}
- c. tükxnüp para tana:xmü
 ta= nücx-nü -pa para tan= na:x-mü
 B1(ABS)=go -already-INCI.I to A1(PSR)=land-LOC
 'I am already going to my home town.' {olu28/428}
- d. ti: ?u:ra pü:ke? ?ipitzümi de ?itükmü
 ti: ?u:ra pü:k=je? ?i= pitzüm-i
 what hour DUB =CLEFT A3(ABS)=exit -COMD

de ?i= tük -mü
 from A3(PSR)=house-LOC
 'At what time did he go out from his house?'
 {viaj2/10}

Second, most of the native and borrowed subordinators precede the subordinated clause. The clause following the subordinator cha?aj 'which,' in (14a) is a relative clause. The clause following the subordinator na?kxej 'when,' in (14b) conveys time. The clause following the borrowed subordinator para 'so that' in (14c) conveys purpose. The clause following the borrowed subordinator porke 'because'

in (14d) conveys reason. The clause following the subordinator niʔixi 'how, as' in (14e) conveys manner.

(14) Subordinator precedes Adverbial Clause

- a. taʔu:küxixüʔk tzoyü niʔjaʔmej chaʔaj ʔikayküxwaʔ
jeʔ lonjanaʔk
- ta= ʔu:k -küx-i =xü=k tzoy niʔjaʔmej
C3(ERG)=drink-PL3-COMD=EV=AN medicine all
- chaʔaj ʔi= kay-küx-w -aʔ jeʔ lonja-nak
which A3(ERG)=eat-PL3-COMI-NMZR that strip-DIM
'All of them who ate the little meat strip drank
the medicine.' {lonja/98}
- b. ʔixiyuk tani:jeʔtzküxi naʔkxej tüʔüʔtz ʔiʔitno
ʔix+ʔi:yʔ-u =k ta= ni:+jeʔtz-küx-i
begin -COMI=AN C3(ERG)=pull_off -PL3-COMD
- naʔkxej tüʔtz ʔi= ʔit -nü -e
when dry A3(ABS)=exist-already-INCD
'He began pulling them off (the leaves) when they
were dry.' {olul/224}
- c. nüxpa xʔu:ki pu:rga para ʔipitzümaʔn yaʔaj
nüx-pa tax= ʔu:k -i pu:rga
go -INCI.I C1(ERG)=drink-INCD purgative
- para ʔi= pitzüm-aʔn yaʔaj
so_that A3(ABS)=exit -IRRD this
'I will drink the purgative so that this comes
out.' {olu2/140}
- d. taʔoyu porke je:pak ʔitükju:niʔi tanjüyi
ta= ʔoy-u porke jeʔ+pi=ak
B1(ABS)=go -COMI because there =AN
- ʔi= tük+ju:n+ni:yʔ-i tan= jüyi
A3(ABS)=live -COMD A1(PSR)=brother-in-law
'I went because my brother-in-law was there.'
{olu26/4}

- e. tanka:tukpe:tü?s ni?ixi ?iyaktuki yam tana:xmü
 tan= ka:=tuk-pe -:t -ütz ni?ixi
 A1(ERG)=NEG=cut-INCI.T-PL.SAP-EXCL as
- ?i= yak- tuk-i ya?+mü tan= na:x-mü
 A3(ABS)=PASS-cut-INCD here A1(PSR)=land-LOC
 'We didn't cut it as it is cut in our town.'
 {olu28/749}

Third, in the minority of cases (20% of the tokens in narratives, see Table A in the endnote number 3), the nominal expression referring to the possessor (PSR) follows the nominal expression referring to the possessum (PSM).

(15) PSM precedes PSR

- a. ?i?awo?k je? ?owajaytzü?k tamü:nüxuk tantükü
?i= ?awok je? ?owa -jaytzü? =k
 A3(PSR)=offsprings that parrot-AUGM_FEM=AN
- tan= mü:+nüx-u =k tan= tük
 A1(ERG)=take -COMI=AN A1(PSR)=house
 'I took that big parrot's chick to my house.'
 {duenyo/24}
- b. jitipüjna?xü?k ?ikü?xta jaytzü?na?k
jiti+püj+na?xü=k ?i= kü?x+ta jaytzü? -nak
 swollen =EV=AN A3(PSR)=foot old_lady-DIM
 'The old lady's foot is swollen.' {lonja/58}

Fourth, the relative clause follows the noun being relativized. In the following examples, the relative clause appears between brackets.

(16) Head Noun precedes Relative Clause

- a. yaʔk koʔkewoʔk yaknúmaʔxúpaʔ nokikoʔkewoʔk
 yaʔ =k koʔke-wok [ø= yak- núm-aʔx
 this=AN fish -DIM B3 (ABS)=PASS-say-APPL1
- ü -pa -ʔaʔ noki- koʔke-wok]
 -INV-INCI.I-NMZR paper-fish -DIM
 'This little fish which is named "small paper
 fish".' {viaj3/144}
- c. mü:t jeʔ tzümi ʔipa:tküxwaʔ tuʔa:pü
 mü:t jeʔ tzüm+i [ʔi= pa:t-küx-w -ʔaʔ
 with that load A3 (ERG)=find-PL3-COMI-NMZR
- tuʔaw-pi]
 road -LOC
 'With that load that they found on the road.'
 {viaj2/145}

Fifth, motion (17a), aspectual (17b) and modal (17c) auxiliaries occur before the main verb (see §3.2). In the following examples the auxiliary root appears underlined.

(17) Auxiliary precedes Main Verb

- a. syenak ʔoyi xkoʔtzoweʔ jem
 syen =ak ʔoy-i tax= koʔ+tzow-aʔ -i
 hundred=AN go -COMD C1 (ERG)=request -APPL1-INCD
- jeʔ+mü
 there
 'I went there to ask him for a hundred (pesos).'
 {aand2/51}
- b. pero teʔej küxu xto:ke
 pero teʔej küx -u tax= to:k-e
 but now finish-COMI C1 (ERG)=sell-INCD
 'But now, I have finished selling it.' {rp3/876}

- c. ka:ja:jatpa mintüki?anü
 ka:-ja:= jat -pa min= tük+?i:y?-a?n
 NEG-MIRAT=be_able-INCI.I A2 (ABS)=enter -IRRD
 'You cannot get in.' {aandb/40}

Sixth, matrix verbs precede subordinated clauses of several types. In the motion-cum-purpose construction, (18), the motion verb (matrix verb) is followed by a purpose clause with a dependent verb.

(18) Matrix Verb precedes Purpose Clause

tükxpa xkepe to:ki
 ta= nüx-pa tax= kep -e to:ki
 B1 (ABS)=go -INCI.I C1 (ERG)=look_for-INCD iguana
 'I go to look for iguana.' {iguana/9}

Matrix verbs also occur before non-finite verbs, i.e., verbs that cannot take person, aspect or negative markers. Non-finite verbs take the non-finite suffix -pa? (NF) 'non-finite.'

(19) Matrix Verb precedes Non-Finite Verb

- a. ?iyaktzake xokotka?spa?
 ?i= yak- tzak-e xokot-ka?tz-pa+?
 A3 (ABS)=PASS-send-INCD grass-cut -NF
 'They are being sent to cut grass.' {olu3/96}
- b. je?p tükxa?ne:t xokpa?
 je?+pi tan= nüx-a?n -e:t xok -pa+?
 there A1 (ABS)=go -IRRD-PL.SAP be_lying-NF
 'We are going there to lie down.' {piojo/28}
- c. je?k tamü:pitzümpe yoxtumpa?
 je? =k tan= mü:+pitzüm-pe yox+e-tun-pa+?
 that=AN A1 (ERG)=take_out -INCI.T work- do -NF
 'I am taking him outside to work' {olu28/39}

Matrix verbs precede complement clauses.

(20) Matrix Verb precedes Complement Clauses

- a. niʔtiʔk taʔa:wixküxnok ʔinaxaʔn
 niʔtik ta= ʔa:wix-küx-nü -i =k
 all C3(ERG)=wait -PL3-already-INCD=AN
 ʔi= nax -aʔn
 A3(ABS)=cross-IRR
 'All of them were waiting for him to pass by.'
 {diabl/81}
- b. jeʔ taxwampe xwiniʔaʔn
 jeʔ tax= wa:nʔ-pe tax= wini:yʔ-aʔn
 that C1(ERG)=want -INCI.T C1(ERG)=know -IRR
 'I want to know that.' {koya/165}

In sum, synchronically Olutec is a V-PO language. The PO-V characteristics found in Olutec are structural traces of a former PO-V word order that the language shared with other members of the Mixe-Zoquean language family. The A-PO-V word order has been reconstructed for Proto-Mixe-Zoquean and for Proto-Zoquean (Kaufman and Justeson 2000). Santa Chimalapa Zoque (Kaufman and Justeson 2000) and Coatlán Mixe (Hoogshagen 1984) are two of the daughter languages where the conservative A-PO-V is still attested. The innovative verb initial word order found in Olutec might have been a feature acquired by areal diffusion since all the languages spoken in the adjacent geographical area —Spanish, Gulf Nahuatl (Uto-Aztecan) in the north, Zapotec (Otomanguean) in

the west, and Tzeltalan (Mayan) in the south) — are V-PO (Campbell et al 1986).

2. Words and Phrases

2.1 Nominal Expressions and Their Constituents

Nominal expressions include a head noun (or independent pronoun) and several modifiers. Core arguments (A, S, Primary Object (PO) and Secondary Object (SO)) are not marked by case markers. Oblique participants are headed by an adposition or a relational noun.

In addition to the head noun, nominal expressions may include a demonstrative, a definite marker, a relative clause, a possessor, adjectives, and quantifiers. Nominal expressions may be continuous or discontinuous. Discontinuous nominal expressions always refer to the absolute argument of the clause (only argument of intransitives and theme of monotransitives and ditransitives).

2.1.1 Nouns

Nouns can function as heads of nominal expressions (21a-c) and as heads of non-verbal predicates (22a-b).

- (21) a. tukakü yoʔjwa jamatukü
 tuk=ak yoʔjwa ø= jamat -u =k
 one=AN man B3 (ABS)=arrive-COMI=AN
 'A man came.' {vg/10}
- b. jeʔ yoʔjwa yoʔo:knüxü jaʔ
 jeʔ yoʔjwa ø= yu:j+ʔo:k-nü =xü jaʔ
 that man B3 (ABS)=hungry -already=EV 3AN
 'That man was hungry.' {rs4/36}
- c. ʔinika:xküxi:xüʔk nimechiʔaj yoʔjwatük
 ʔi+ni+ka:x+küx+i+y+xü+k ni+metzi+ʔaj yoʔjwa-tük
 they_combed_each_other pair man -PL
 'The two men combed each other's hair.'
 {rsch2/236}

Nouns functioning as non-verbal predicates are marked with an absolutive proclitic cross-referencing the only argument of the predication.

- (22) a. ʔü:s tayoʔjwa
 ʔü:tz ta= yoʔjwa
 I B1 (ABS)=man
 'I am a man.' {rp3/356}
- b. mü:t yoʔjwaxü:keʔ
 mü:t ø= yoʔjwa=xü=k =jeʔ
 and B3 (ABS)=man =EV=AN=that
 'And he is a man.' {rschl/177}

Nouns expressing core arguments are not marked by adpositions, (21) and (23a). In contrast, oblique relations are marked by adpositions (23b-c).

(23) a. Agent and Primary Object

jama:k yoʔjwa ʔimü:nükxu ʔimaʔtzu
 jamaj=k yoʔjwa ʔi= mü:+nükx-u
 that =AN man A3(ERG)=take -COMI

ʔi= maʔtzu
 A3(PSR)=lover
 'That man took his lover.' {miel/8}

b. Location

jama:k yoʔjwa niʔjaʔme:k tyaktiji koʔke ʔitükmü
 jamaj=k yoʔjwa niʔjaʔmej=k ta= yak+tij-i
 that =AN man all =AN C3(ERG)=leave -INCD

koʔke ʔi= tük -mü
 fish A3(PSR)=house-LOC
 'That man left all the fish in his house.'
 {pesca/154}

c. Comitative

jeʔ ʔu:rak ʔinüknexne jeʔ yoʔjwa mü:t jeʔ
 chu:chunaʔk

jeʔ ʔu:ra=k ʔi= nükx-nü -i
 that hour =AN A3(ABS)=go -already-COMD

jeʔ yoʔjwa mü:t jeʔ chu:chu-nak
 that man with that child -DIM
 'At that time, the man went with that child.'
 {rschl/123}

2.1.1.1 Nominal Morphology

Nouns may take several inflexional morphemes. The morphological template for nouns is very simple when compared to the one for verbs. The enclitics appearing in positions eight to ten also occur with verbs. The symbol = indicates that the morpheme involved is a clitic. The symbol - indicates that the morpheme involved is an affix.

- (24) 2= Possessive
 1- "other" (ja:-), "someone else's" (jay-),
 "deceased" (-jayma?)
- | <u>NOUN</u> | <u>ROOT</u> |
|-------------|---|
| -1 | Honorific diminutive (<u>-tukik</u>) |
| -2 | Diminutive (<u>-(?u)nak</u> , (<u>-(?a)wok</u>), augmentative
(<u>-na?w</u>), (<u>-jaytzü?</u>) |
| -3 | Plural (<u>-tük</u>) |
| -4 | Relational Noun |
| -5 | Postposition |
| -6 | Plural for Speech Act Participant Possessors
(<u>-ü:tek</u>) |
| -7 | First Person Exclusive Possessor <u>-ütz</u> |
| =8 | Evidential (<u>=xü</u>) |
| =9 | "just, only" (<u>=koj</u>) |
| =10 | Animate (<u>=(a)k</u>) |

In possessive constructions, the possessor is marked on the possessum by a possessive proclitic (position 2= in the template). Third-person possessors may be expressed by nominals preceding (25a) or following (25b) the head noun.

- (25) a. pe:dro rremijiw ?imajaw
 pe:dro rremijiw ?i= majaw
 Pedro Remigio A3(PSR)=wife
 'Pedro Remigio's wife.' {aandc/476}

- b. ʔimajawak jeʔ pro:we yoʔjwa je:paʔk
 ʔi= majaw=ak jeʔ pro:we yoʔjwa je:p+pa+ʔ=k
 A3(PSR)=wife =AN that poor man fisherman=AN
 'the wife of that poor fisherman' {pesca/179}

The whole paradigm of possessive proclitics is discussed in Ch. 3, §3.1. The plural marker for second person possessor (position -5) is illustrated in (26a). The same marker occurring before the exclusive suffix -ütz (position -6) is shown in (26b).

- (26) a. min= küʔ -ü:tek
 A2(PSR)=hand-PL.SAP
 'the hands of you all'
- b. tan= na:x-mü -:tek -ütz
 A1(PSR)=land-LOC-PL.SAP-EXCL
 'in our towns.'

The three prefixes occurring in position 1- are illustrated in the following examples. The prefix -jaymaʔ only occurs with nouns referring to human beings.

- (27) a. mü:t ja:pu:tuʔm
 mü:t ja:- pu:tum
 and another-half
 'and the other half' {rspf2/594}
- b. ʔimü:xokuk jaymajaw
 ʔi= mü:+xok -u =k jay- majaw
 A3(ERG)=sleep_with-COMI=AN another's-wife
 'He slept with somebody else's wife.'

- c. tanjaymaʔtzüʔ
 tan= jaymaʔ- tzüʔ
 A1 (PSR)=deceased-mother
 'my deceased mother' {aandb/18}

Olutec has three diminutives and two augmentatives. The etymological source of -tukik (position -1) is unknown. This diminutive carries an honorific sense. The two other diminutives (position -2) grammaticalized from nouns. The suffix (-ʔa)wok comes from ʔawok 'offspring (son or daughter),' whereas the suffix (-ʔu)nak comes from ʔunak 'offspring, child.'

- (28) a. mesko taʔawokwoʔk
 metzko tan= ʔawok -wok
 two A1 (PSR)=offspring-DIM
 'my two little sons.' {mil/264}
- b. ʔiʔunakunaʔk
 ʔi= ʔunak -ʔunak
 A3 (PSR)=offspring-DIM
 'his little child' {lm2/238}

All diminutives can combine with inanimate and animate nouns. The suffix -tukik may co-occur with the other two diminutives.

- (29) a. N-tukik-ʔawok
 me:nyutukikawoʔk
 me:nyu-tukik-ʔawok
 money -DIM -DIM
 'little coin.' {lm3/647}

b. N-tukik-ʔunak

tanü:nütukikunaʔk
 tan= nü:nü -tukik-ʔunak
 A1 (PSR)=tortilla-DIM -DIM
 'my little tortilla'

c. N-ʔawok

tantu:tukawoʔk
 tan= tu:tuk-ʔawok
 A1 (PSR)=turkey-DIM
 'my little turkey chick' {lm4/498}

d. N-ʔunak

tukanaʔk
 tuka -nak
 turtle-DIM
 'little turtle' {lm4/457}

The examples in (30) show that the same noun may take any of the three diminutive markers.

- (30) a. tankayam tanü:nütutik
 tan= kay-am tan= nü:n -tutik
 A1 (ERG)=eat-IRRI A1 (PSR)=tortilla-DIM
 'I am going to eat my little tortillas.'
- b. mixkepam mi:s para jama:k ʔinü:nawoʔk minta:tawoʔk
 mix= kep -am mi:tz para jamaj=k
 C2 (ERG)=look_for-IRRI you for that =AN
 ʔi= nü:n -ʔawok min= ta:ta -wok
 A3 (PRS)=tortilla-DIM A2 (PRS)=grandson-DIM
 'You look for (money to buy) little tortillas for your grandsons.' {lm3/601}
- c. tyakxo:kaypek ʔinü:nʔunaʔk
 tan=yak+xo:k-ay -pe =k ʔi= nü:n -ʔunak
 A1 (ERG)=soak-APPL1-INCI.T=AN A3 (PSR)=tortilla-DIM
 'I am soaking his little tortilla.' {aand/71}

The Olutec augmentative suffixes grammaticalized from nouns. The suffix -naʔw comes from the noun naʔw 'old person, old man,' while the suffix -jaytzüʔ comes from the noun jaytzüʔ 'old woman.' The augmentative -naʔw co-occurs with animate and inanimate nouns, while the augmentative -jaytzüʔ is suffixed to animate nouns only. Thus, the selection of a specific augmentative marker with animate nouns depends on gender. The form -naʔw makes explicit that the referent of the noun is masculine, whereas the suffix -jaytzüʔ makes explicit that the referent of the noun is feminine.

(31) Augmentative for Feminine Nouns

- a. tuʔk xuʔnijaytzüʔ
 tuk xuʔni-jaytzüʔ
 one dog -AUGM FEM
 'a big female dog.' {rs6/3}
- b. kawa:yujaytzüʔtük chikxpaʔk
 kawa:yu-jaytzüʔ -tük chikxpak
 horse -AUGM FEM-PL pretty
 'beautiful big mares.' {vg3/248}

(32) Augmentative for Masculine Nouns

- a. tuʔk xuʔninaʔw
 tuk xuʔni-naʔw
 one dog -AUGM
 'a big male dog' {vg/252}
- b. nuʔpunaʔw
 nuʔpu -naʔw
 buzzard-AUGM
 'big male buzzard' {zopil/222}

(33) Augmentative for Inanimate Nouns

- a. ?ikayana?w
 ?i= kay+an-na?w
 A3(PSR)=meal -AUGM
 'his big meal' {rspf2/228}
- b. tixix nü:nüna?wtük
 tixix nü:n -na?w-tük
 thick tortilla-AUGM-PL
 'thick big tortillas' {rspf2/475}
- c. ja? tu?k pe:tana?w
 ja? tuk pe:t?+an-na?w
 DEF one broom -AUGM
 'the big broom' {rs6/12}

When -na?w and -jaytzü? co-occur with kinship terms, they do not function as augmentatives but as gender markers. Compare the following pair:

- (34) a. tanümaype tanta:tajaytzü?
 tan+nüm+ay+pe tan= ta:ta -jaytzü?
 I am telling A1(PSR)=grandchild-FEM
 'I am telling my granddaughter that.' {aandb/226}
- a. mü:tak tanta:tana?w je?k jo:rje
 mü:t=ak tan= ta:ta -na?w je? =k jo:rje
 and =AN A1(PSR)=grandchild-MASC that=AN Jorge
 '[...] and my grandson Jorge' {lm3/507}

Both animate and inanimate nouns may take the plural suffix -tük (position -3).

(35) Animate Noun + Plural

- a. mimü:ta?awtük
 min= mü:+ta?w-tük
 A2(PSR)=neighbor-PL
 'your neighbors.' {vg3/146}

- b. jama:k ?ipa:kaxtü?k
 jamaj=k ?i= pa:kax-tük
 that =AN A3(PSR)=cattle-PL
 'those cows' {vg2/518}

(36) Inanimate Noun + Plural

- a. ya?aj ko:xotü?k
 ya?aj ko:xo-tük
 this day -PL
 'these days' {vg2/595}
- b. ?ina:xütü?k
 ?i= na:x-tük
 A3(PSR)=land-PL
 'his pieces of land' {vg2/509}

Nouns with plural reference need not bear the plural suffix, (37a). The plurality interpretation may be inferred from the discourse context or from the fact that the verb is overtly marked by a third-person plural suffix cross-referencing the semantically plural participant, (37b).

(37) a. No Overt Plural Marker within the Clause

?imachi?tuk xu?ni
 ?i= machi?t-u =k xu?ni
 A3(ERG)=release-COMI=AN dog
 'He released the dogs.' {olu26/81}

b. Overt Plural Marker Only on the Verb

pya?tikawo?k ?asta ma:sak tako?tzowküxi
 pya?tik-?awok ?asta ma:s=ak ta= ko?tzow-küx-i
 child -DIM even more=AN C3(ERG)=ask-PL3-INCD
 'The little boys are even asking for more.'
 {vg3/136}

Relational nouns (position -4) and postpositions (position -5) mark nouns when they function as obliques (see §2.5.4).

(38) a. Postposition

piyü?kpak mü:t ?i?una?k ?ikü?tükjem
 ø= piyü?k-pa =k mü:t ?i= ?unak
 B3 (ABS)=run -INCI.I=AN with A3 (PSR)=son

?i= kü?-tük-je?+mü
 A3 (PSR)=arm-PL -LOC
 'She is running with her son in her arms.'
 {rschl/250}

b. Relational Noun + Postposition

je? ?u:raxü jamaj nü?pinxü ?ika?i na:xküxmü
 je? ?u:ra=xü jamaj nü?pin=xü ?i= ka? -i
 that hour =EV that blood =EV A3 (ABS)=descend-COMD

na:x -küx -mü
 ground-surface-LOC
 'That is when the blood flowed down onto the ground.' {diab2/109}

The morphemes that appear in positions =8 to =10 are enclitics that may also be attached to deictics, adverbs, adjectives, numerals, and verbs. The enclitic =xü is a 'hearsay' evidential. The enclitic =koj carries the adverbial meaning 'just, only'. The third enclitic, =(a)k, attaches to any of the constituents of a clause when there is an animate participant involved. The following examples illustrate the three enclitics occurring with nouns:

(39) a. Evidential

mesko warri?lxü tapiwkoti
 metzko warril=xü ta= piw+kot-i
 two barrel=EV C3(ERG)=gather -COMD
 'It is said that he collected two barrels (of
 shit).' {olu4/55}

b. Just/Only

tzu?chikoj juya?a?kü
 tzu?chi=koj juy-a? -a -k
 meat =just buy-APPL1-IMPR-INV.LOC
 'Just buy meat!' {olu5/54}

c. Animate

?imajawak ?ina?tzayuk ?iwintojkü:kü
 ?i= majaw=ak ?i= na?tz-ay -u =k
 A3(PSR)=woman=AN A3(ERG)=paint-APPL1-COMI=AN

?i= wintoj+kü:k
 A3(PSR)=face
 'He painted his wife's face.' {rsch2/145}

d. Evidential + Just/Only

kuyjotpixükoj ?imi?na? ni?ixi jaytzu?
 kuy -jot -pi =xü=koj ?i= mi:n?-i =ja?
 tree-inside-LOC=EV=just A3(ABS)=come -INCD=3AN

ni?ixi jaytzu?
 as deer
 'It is said that he (the hunter) was moving in the
 bush just like a deer.' {olu1/140}

e. Evidential + Animate

?asta ?iwinüxü?k ?iyaktü?kxpe
 ?asta ?i= win=xü=k ?i= yak+tü?kx -pe
 even A3(PSR)=eye=EV=AN A3(ERG)=make_shine-INCI.T
 'It is said that she is even opening her eyes
 wide.' {olu2/155}

f. Just/Only + Animate

yamü jeʔk chu:chunakok ju:ni:pak
 yaʔ+mü jeʔ =k chu:chu-nak=koj =k
 here that=AN child -DIM=just=AN

ju:n+ni:yʔ-pa =k
 sit -INCI.I=AN
 'The little boy is sitting here.' {rschl/679}

g. Evidential + Just/Only + Animate

tzu:pxükok ʔipitzümi ʔiʔüwi puʔjuyu
 tzu: -pi =xü=koj =k ʔi= pitzüm-i
 night-LOC=EV=just=AN A3(ABS)=exit -INCD

ʔi= ʔüw -i puʔjuyu
 A3(ABS)=sing-INCD roadrunner
 'It is said that the roadrunner only comes out at
 night.' {zopil/205}

2.1.1.2 Nouns Derived from Verbs (Nominalizations)

Olutec exhibits three different nominalizers that derive nouns from verbs. Nominalized verbs may bear the same morphological markers as canonical nouns. They also may function as head of nominal expressions or as non-verbal predicates.

The most common nominalizer is -i (and its allomorph -e appearing after verb roots with non-high vowels). This nominalizer creates nouns that refer to the theme or the result of an event described by the verb root.

- (40) a. kapx-e
speak-NMZR
'rumor, gossip'
- b. kay-e
eat-NMZR
'lunch (N)'
- c. keʔkx-e
braid-NMZR
'braid (N)'
- d. koj-e
weave-NMZR
'fabric, weave (N)'
- d. kox-e
hit-NMZR
'punch (N)'
- e. nan-e
grumble-NMZR
'growl (N)'
- f. nap-e
mend-NMZR
'patch'
- g. poj-e
kick-NMZR
'kick (N)'
- h. püʔkx-i
slap-NMZR
'slap (N)'
- i. püj-i
burst-NMZR
'flower (N)'
- j. ta:kʔ-i
give_birth-NMZR
'green spike of corn'
- k. ʔampiw-i
talk-NMZR
'talk (N)'
- l. tuj-i
shoot-NMZR
'shot'
- m. tüpx-i
twist_ropes-NMZR
'rope'
- n. tü:nʔ-i
shit-NMZR
'excrement'
- o. tzuʔtz-i
bite-NMZR
'meat'
- p. tzun-i
drip-NMZR
'drop'
- q. tzu:kx-i
kiss-NMZR
'kiss (N)'
- r. tzüm-i
carry_on_back-NMZR
'load (N)'
- s. wit-i
stroll-NMZR
'journey'
- t. xikiw-i
sound_rattle-NMZR
'gourd rattle'
- u. xu:k-i
stink-NMZR
'stench'
- v. ya:xʔ-i
scream-NMZR
'bark, scream (N)'
- w. ʔüw-i
sing-NMZR
'song'

The complex morpheme -paʔ (from -pa incomplete + -(ʔa)ʔ nominalizer) creates agentive nouns, i.e., nouns that refer to the entity that performs the event described by the verb root.

- | | | | |
|---------|---|----|---|
| (41) a. | <u>ʔetz-paʔ</u>
dance-NMZR
'dancer' | b. | <u>ʔixnax-paʔ</u>
read-NMZR
'reader, student' |
| b. | <u>ʔu:k-paʔ</u>
drink-NMZR
'drunkard' | d. | <u>jan-kapx-paʔ</u>
lie-speak-NMZR
'liar' |
| e. | <u>ʔüw-paʔ</u>
sing-NMZR
'singer' | f. | <u>ja:yʔ-paʔ</u>
write-NMZR
'writer' |
| g. | <u>joʔn-paʔ</u>
steal-NMZR
'thief' | h. | <u>juʔk-paʔ</u>
smoke-NMZR
'smoker' |
| i. | <u>koj-paʔ</u>
weave-NMZR
'weaver' | j. | <u>natz-paʔ</u>
paint-NMZR
'painter' |
| k. | <u>püj-paʔ</u>
burst-NMZR
'rocket' | l. | <u>tuj-paʔ</u>
shoot-NMZR
'hunter' |
| m. | <u>tzukx-paʔ</u>
cut-NMZR
'barber' | n. | <u>xa:tz-paʔ</u>
roll_up-NMZR
'cigar maker' |

The suffix -paʔ also functions as a non-finite marker when occurring with verbs of subordinated clauses. In this type of subordinated clause, the second verb cannot carry aspect or person. Thus, the semantically coreferential participant is marked only on the first verb.

- (42) a. mü:t mo:t ma:pa?
 mü:t mo:t ma:j?_pa+?
 and let's go sleep-NF
 'Let's go sleep!' {id3/102}
- b. taminu yam jo?mpa?
 ta= mi:n?-u ya?+mü jo?n _pa+?
 B1(ABS)=come -COMI here steal-NF
 'I came here to steal.' {id3/383}
- c. ta?oyu juypa?
 ta= ?oy -u juy-pa+?
 B1(ABS)=go&return-COMI buy-NF
 'I went shopping.' {rp2/551}
- d. ?oyuk je:pa?
 ø= ?oy -u =k je:p-pa+?
 B3(ABS)=go&return-COMI=AN fish-NF
 'He went fishing.' {rp3/647}
- e. ?itükiyik piyü?kpa?
 ?i= tük+?i:y?-i =k piyü?k-pa+?
 A3(ABS)=enter -COMD=AN run -NF
 'He came in running.' {rspfl/51}

The suffix -an creates instrument nominalizations, i.e. the noun resulting from the derivation refers to an instrument used to perform the event encoded by the verb root.

- (43) a. ?awkaj-an
 bar-NMZR_INSTR
 'bar'
- b. ?etz+ta:k?-an
 dance-NMZR_INSTR
 'dancing stage'
- c. chi?t+kot-an
 button-NMZR_INSTR
 'button'
- d. chi:w?+ta:k?-an
 bathe-NMZR_INSTR
 'bathroom'

e.	ja:yʔ-ke:kʔ-an write-move-NMZR_INSTR 'eraser'	f.	ja:yʔ-an write-NMZR_INSTR pencil
g.	ji:n-an scrub-NMZR_INSTR 'scourer'	h.	joʔkx-an hang-NMZR_INSTR 'hook'
i.	jo:y-an mix_mud-NMZR_INSTR 'shovel to mix mud'	j.	juʔk-an smoke-NMZR_INSTR 'tobacco, cigar'
k.	jüy+ta:kʔ-an play-NMZR_INSTR 'toy'	l.	jü:t-an saw-NMZR_INSTR 'handsaw'
m.	kapx-an speak-NMZR_INSTR 'tape-recorder'	n.	ka:x-an comb-NMZR_INSTR 'comb'
o.	ma:jʔ+ta:kʔ-an sleep-NMZR_INSTR 'bed, folding bed'	p.	moʔtz-an grind-NMZR_INSTR 'mortar'
q.	nuʔx-an cover-NMZR_INSTR 'shawl, cover, sheet'	r.	pe:tʔ-an sweep-NMZR_INSTR 'broom'
s.	tuj-an hunt-NMZR_INSTR 'shotgun, rifle'	t.	tú:y-an swing-NMZR_INSTR 'hammock'

2.1.2 Independent Pronouns

Three persons are distinguished in the paradigm of independent pronouns (first, second and third). Each independent pronoun also exhibits a plural form. In the first person plural a further distinction is made between inclusive (all of us) and exclusive (us but not you).

Independent pronouns for third-person are recruited from the paradigm of deictics (see §2.1.3). Thus, third person pronouns distinguish among participants closer to the speaker (this one, PROX 'proximal'), away from the speaker (that one, DIST1 'distal'), and away from the speaker and listener (that one further away, DIST2 'distal').

(44)		<u>Singular</u>	<u>Plural</u>
	1 INCL	<u>ʔü:tz</u>	<u>tza:tek</u>
	1 EXCL		<u>tza:tekütz</u>
	2	<u>mi:tz</u>	<u>mi:tza:tek</u>
	3 (PROX)	<u>yaʔaj</u>	<u>yaʔajtük</u>
	(DIST1)	<u>jeʔ</u>	<u>jeʔtük</u>
	(DIST2)	<u>jamaj</u>	<u>jamajtük</u>

The first and second person plural forms come from the singular ʔü:tz and mi:tz followed by the plural suffix for speech act participants -a:tek. Synchronically, the first person plural form does not have the two initial segments. The exclusive pronoun has an additional suffix -ütz, which comes from the first person pronoun ʔü:tz. The third person plural forms carry the plural suffix -tük.

Independent pronouns for first and second person are used for clarification, contrast and emphasis.

- (45) a. ʔü:seʔ tanxüwü ʔantonyo
ʔü:tz=jeʔ tan= xüw ʔantonyo
 I =CLEFT A1 (PSR)=name Antonio
 'I am the one named Antonio.' {viaj2/270}

- b. ka:ti: tanka:japa:tu por mi:s
 ka:+ti: tan= ka:=ja= pa:t-u por mi:tz
 nothing A1(ERG)=NEG=MIRAT=find-COMI because you
 'I didn't find anything because of you.'
 {pesca/221}
- c. tza:teʔk, niʔtik ko:xo tayoxuni:t
tza:tek niʔtik ko:xo ko:xo
 we every day day

 tan= yox+e+tun-i -:t
 A1(ABS)=work -INCD-PL.SAP
 'We ourselves work every day.' {desob/13}
- d. tza:teküʔs tanka:wini:pe:tüʔs
tza:tek-ütz tan= ka:=wini:yʔ-pe -:t -ütz
 we -EXCL A1(ERG)=NEG=know -INCI.T-PL.SAP-EXCL
 'We (he and I) didn't know it!' {olu28/628}
- e. mi:tza:teʔk sin niti: mitiji:t
mi:tza:tek sin ni+ti: min= tij -i:t
 you-all without nothing A2(ABS)=stay-PL.SAP
 'You yourselves were left without anything.'
 {vg3/312}

2.1.3 Definite Article and Demonstratives

Olutec has one definite article, jaʔ. This article appears in two discourse contexts. It occurs before nouns that refer to prominent participants in discourse when they are first mentioned, (46a), or when they have been previously introduced (46b). Thus, nouns marked by the definite article refer to entities that are going to be important participants in discourse or to entities that are known to both the hearer and the speaker.

- (46) a. jaʔk tuʔk tzanaʔy ʔiʔe:pu jeʔ ʔiyoʔwe
 jaʔ=k tuk tzanay ʔi= ʔe:p-u jeʔ
 DEF=AN one snake A3(ERG)=see -COMI that
 ʔi= yoʔwe
 A3(PSR)=husband
 'Her husband saw the snake.' {iguana/67}
- b. nümpaxü jaʔ ʔa:waʔt
 ø= nüm-pa =xü jaʔ ʔa:wat
 B3(ABS)=say-INCI.I=EV DEF louse
 'The louse says [...]' {piojo/114}

The same form functions as a third-person anaphoric pronoun for animate participants, glossed as 3AN. The anaphoric pronoun in (47a) refers to the topicalized subject.

- (47) a. jama:k ʔa:watü ma:pa jaʔ
 jamaj=k ʔa:wat ø= ma:jʔ-pa jaʔ
 that =AN louse B3(ABS)=sleep-INCI.I 3AN
 'As for that louse, it is sleeping.' {piojo/76}
- b. nümpaxü jaʔ
 ø= nüm-pa =xü jaʔ
 B3(ABS)=say-INCI.I=EV 3AN
 'He says [...]' {pesca/210}

Olutec has three demonstratives: yaʔ(aj) 'this (close to the speaker),' jeʔ 'that (away from the speaker),' jamaj 'that (away from the speaker and hearer).' They occur before the head of the nominal expression.

- (48) a. tanikü?pa:tünüwa?ko mü:tak ya?ak yo?jwa
 ta+ni+kü?pa:t+nü+ü+w+a?+koj mü:t=ak
 I_had_already_been_married with=AN

 ya? =ak yo?jwa
 this=AN man
 'I had already been married with this man.'
 {rp3/807}
- b. je?k yo?jwa jemxük tapa:ti mesko ta:najti
 je? =k yo?jwa je?+mü=xü=k ta= pa:t-i
 that=AN man there =EV=AN C3(ERG)=find-COMD

 metzko ta:najti
 two shoulder_bag
 'That man found two shoulder bags there.'
 {viajerol/37}
- c. mü:t jama:k yo?jwa ni?ti?k ko:xo ?inükxi tapüki
 tzümi

 mü:t jamaj=k yo?jwa ni?tik ko:xo
 and that =AN man every day

 ?i= nüx-i ta= pük -i tzüm+i
 A3(ABS)=go -INCD C3(ERG)=grab-INCD load
 'And that man went every day to get loads.'
 {viajerol/28}

The three demonstratives may also function as third-person independent pronouns. Demonstratives in the pronominal function may take the plural suffix -tük.

- (49) a. mayeko ?i?itküxi ya?ajtük
 may -ek =koj ?i= ?it -küx-i ya?aj-tük
 count-PCP=just A3(ABS)=exist-PL3-INCD that -PL
 'These are counted.' {id3/226}

- b. taʔe:pu jeʔtükak ʔiʔo:küxi
 tan= ʔe:p-u jeʔ -tük=ak
 A1 (ERG)=see -COMI that-PL =AN
- ʔi= ʔo:k-küx-i
 A3 (ABS)=die -PL3-INCD
 'I saw them die.' {vg2/5}
- c. nüxü yakapxta jama:kü
 nüx-ü yak- kapx-ta jamaj=ak
 go -IMPR CAUS-talk-NF that =AN
 'Go to call that one!' {lm2/289}

2.1.4 Adjectives

Olutec adjectives may function as noun modifiers and as non-verbal predicates. Adjectives differ from verbal predicates in that they do not inflect for aspect. Unlike nouns, adjectives do not take the plural suffix -tük or the diminutive markers -ʔawok and -ʔunak. Adjectives cannot be possessed either.

Adjectives functioning attributively may appear before or after the modified noun. When adjectives occur in the prenominal position, they appear in their bare form.

(50) Adjectives as Nominal Modifiers

- a. jaʔ tzapaʔs na:x
 jaʔ tzapatz na:x
 DEF red dirt
 'the red dirt' {olu3/48}

- b. jeʔ yūkük ʔu:piʔk
 jeʔ yūkük ʔu:p+ik
 that black chili sauce
 'that chili sauce' {mi2/97}
- c. po:poʔ ʔupi
po:poʔ ʔupi
 white corn_drink
 'white corn drink.' {mi2/237}
- d. taʔnük ma:nkukunyaʔaʔw ʔiʔoyi jiʔmaj
taʔnük ma:nku-kuy -naʔw ʔi= ʔoy -i jiʔmaj
 big mango -tree-AUGM A3(ABS)=exist-COMD there
 'There was a big mango tree over there.' {id3/773}
- e. ʔoya jaykajak seme ʔiʔoyi
ʔoya jaykak=ak seme ʔi= ʔoy -i
 good people=AN very A3(ABS)=exist-COMD
 'They were very good people.' {rp3/48}
- f. tüʔüʔs mo:kü
tüʔtz mo:k
 dry corn
 'dried corn' {lm3/406}

In the postnominal position, adjectives function as nominalized relative clauses. They take the nominalizer -ʔaj.

(51) Postnominal Adjectives

- a. segi:do mimpak tuʔk mixtunaʔw yūkükaj
 segi:do ø= mi:nʔ-pa =k tuk
 often B3(ABS)=come -INCI.I=AN one
- mixtun-naʔaw ø= yūkük-ʔaj
 cat -AUGM B3(ABS)=black-NMZR
 'A big black cat comes very often.' {aand/57}

- b. ?ipitzünta:kne:j tu?k tzu:kna?w ta?nükaj
 ?i+pitzüm+ta:k?+nü+i tuk tzu:k-na?w
 it_came_out one mouse-AUGM
 ø= ta?nük-?aj
 B3(ABS)=big -NMZR
 'A big rat came out.' {rspf1/20}
- c. je? tzoyü ?oya?aj
 je? tzoy ø= ?oya-?aj
 that medicine B3(ABS)=good-NMZR
 'That good medicine [...]' {sarnozo/70}
- d. ?itu ma:nku chikxpakaj
 ø= ?it -u ma:nku chikxpak-?aj
 B3(ABS)=exist-COMI mango pretty -NMZR
 'There was a pretty mango.' {viaj3/230}
- e. jaykako?ke tü?sajü tankayumpoka?k
 jaykak-ko?ke ø= tü?tz-?aj
 people-fish B3(ABS)=dry -NMZR
 tan= kay-u =mpok=ak
 A1(ERG)=eat-COMI=also=AN
 'I also ate dried sea bass.' {viaj3/160}

As non-verbal predicates, adjectives take the absolute proclitic cross-referencing the subject.

(52) Adjectives as Non-Verbal Predicates

- a. seme michikxpak mi:s
 seme mi= chikxpak mi:tz
 very B2(ABS)=pretty you
 'You are very pretty.' {rspf2/647}
- b. ta mita?nük
 ta mi= ta?nük
 COND B2(ABS)=big
 'But you were big.' {id3/524}
- c. seme mika:ʔo?y
 seme mi= ka:=?oya
 very B2(ABS)=NEG=good

'You are very bad.' {aandc/120}

- d. taʔo:kiʔk ʔü:s
 ta= ʔo:k-ik ʔü:tz
 B1(ABS)=die -PCP I
 'I am dead.' {olu6/162}
- e. ʔoyaxü jeʔ nü:jü
 ø= ʔoya=xü jeʔ nü:
 B3(ABS)=good=EV that water
 'That water is good.' {sarnozo/39}
- f. taʔnükak ʔitükü
 ø= taʔnük=ak ʔi= tük
 B3(ABS)=big =AN A3(PSR)=house
 'His house is big.' {id2/108}
- g. yükükak jeʔ mu:xi
 ø= yükük=ak jeʔ mu:xi
 B3(ABS)=black=AN that bird
 'That bird is black.' {rsch2/419}

Adjectives may also occur followed by an existential copula when they express states which either are transient or are result of an action.

- (53) a. teʔej ʔoyak ʔiʔitküxi
 teʔej ʔoya=k ʔi= ʔit -küx-i
 now good=AN A3(ABS)=exist-PL3-INCD
 'Now they are fine.' {aandc/413}
- b. jutukak ʔiʔiti
 jutuk=ak ʔi= ʔit -i
 awake=AN A3(ABS)-exist-INCD
 'He is awake.' {id1/31}
- c. porke chikxpak tuʔk ʔiʔiti
 porke chikxpak tuk ʔi= ʔit -i
 because pretty one A3(ABS)=exist-INCD
 'because one is pretty.' {lm4/158}

- d. ?oya ?i?itan je? mo:kü
 ?oya ?i= ?it -an je? mo:k
 good A3(ABS)=exist-IRR that corn
 'The corn is going to be good.' {rss11/25}
- e. wa?a?s tantükü ?i?iti
 wa?tz tan= tük ?i= ?it -i
 clean A1(PSR)=house A3(ABS)=exist-INCD
 'The house is clean' {rs2/90}
- f. jumej tü?tz ?i?itno
 jumej tü?tz ?i= ?it -nü -i
 how dry A3(ABS)=exist-already-COMD
 'How come that it was already dried.' {viaj3/52}

There are other two formal properties that adjectives do not share with any other word class. First, adjectives form the diminutive with the suffix -chik, and the augmentative with the suffix -matz.

(54) Adjectives plus Diminutive

- a. mü:t michu:chuchikna?
 mü:t mi= chu:chu-chik-na?
 and B2(ABS)=small -DIM -STATZR
 'You are a little-bitty person.' {id3/526}
- b. jütütchikna? ja?
 ø= jütüt-chik-na? ja?
 B3(ABS)=thin -DIM -STATZR 3AN
 'He is a little-bitty thin person.' {lm2/294}
- c. tu?k tümuna?k yampa? tzapaschikna?
 tuk tüm -?unak yampa? tzapatz-chik-na?
 one fruit-DIM this big red -DIM -STATZR
 'one little red fruit' {rspf1/504}
- c. yaknü?ükchikna?xü ja?
 yaknü?ük-chik-na? =xü ja?
 poor -DIM -STATZR=EV 3AN
 'You are a poor little-bitty person.' {pesca/18}

(55) Adjectives plus Augmentative

- a. ni:waʔsmasnaʔk ʔiʔiti
 ni:+waʔtz-matz-naʔ =k ʔi= ʔit -i
 naked -AUGM-STATZR=AN A3(ABS)=exist-COMD
 'He was bare naked.' {zopil/30}
- b. jumej yukmükmasnaʔ ʔijate
 jumej yukmük-matz-naʔ ʔi= jat -e
 how tall -AUGM-STATZR A3(ABS)=become-INCD
 'How did get so tall.' {lm4/470}

Second, adjectives may reduplicate to convey intensity.

Some examples follow:

- (56) a. yüküʔk yüküʔk tanpitzümi
yükük yükük tan= pitzüm -i
 black black A1(ABS)=come_out-COMD
 'I was born really black.' {olu28/538}
- b. jiki jiki nijaʔmej yaʔaj tuku
jiki jiki ni+jaʔmej yaʔaj tuku
 dirty dirty in that way this cloth
 'this really dirty cloth.' {trab/462}
- c. kospa kospa tanyaktijij jeʔ waga:so
kotzpa kotzpa tan= yak+tij-i -j
 sticky sticky A1(ABS)=leave -INCD-INCD
- jeʔ waga:so
 that cane_pulp
 'The cane pulp makes me very sticky.' {C1/67/401}
- d. taka takaxüʔk yaktuni
taka taka=xü=k ø= yak- tun-i
 bald bald=EV=AN B3(ABS)=PASS-do -COMD
 'They shaved him bald.' {C20/32/15}

2.1.5 Relative Clauses

Relative clauses (RC's) follow the noun (or pronoun) they are modifying. There are two types of relative clauses. The first type uses a gapping strategy to recover the relativized noun within the RC. The second type uses a relative pronoun to recover the relativized noun within the RC (Keenan 1985b, Comrie 1989).

A gapping strategy is used when the head is coreferential with a core argument within the relative clause. In the gapping strategy, the relativized argument is not expressed by a relative pronoun inside the RC and the verb of the RC bears a nominalizer. In (57a), the relativized noun is coreferential with the intransitive S of the RC. In (57b), the relativized noun is coreferential with the A of the RC, while in (57c), the relativized noun is coreferential with the PO (primary object) of the RC.

- (57) a. mü:tak jama:k kumpa:ne nükwaw? jaywintu?atpa
 mü:t=ak jamaj=k kumpa:ne [ø= nükw-w -a?]
 and =AN that =AN friend B3(ABS)=go -COMI-NMZR
 jay+wintu+?at+pa
 ahead
 'And that friend who went ahead [...]' {rs4/11}
- b. je?k yo?jwa ?iyak?o:kwa? tzana?y
 je? =k yo?jwa [?i= yak+?o:k-w -?a? tzana?y]
 that=AN man A3(ERG)=kill -COMI-NMZR snake
 'The man who killed the snake.' {rs4/51}

c. ?iyakü:wuxü je? majaw je?xü tzana?y ?imü:jamatwa?
?iyo?we

?i+yak+kü:w?+u+xü je? majaw je? =xü tzanay
she_cooked_it that woman that=EV snake

[?i= mü:+jamat-w -?a? ?i= yo?we]
A3(ERG)=bring -COMI-NMZR A3(PSR)=husband
'The woman cooked the snake that her husband
brought.' {rs4/111}

In the second strategy, the RC includes a relative pronoun coreferential with the head. This second strategy is used when the argument being relativized functions as an oblique within the RC. The relativized argument in (58) is coreferential with the oblique locative participant of the postnominal RC.

(58) ya?aj na:xü ya?aj ju?kupakü jumü ta?iti:tü?s
ja?mej ?iküxanü

ya?aj na:x ya?aj ju?kopak [jumü tan= ?it -i
this land this town where A1(ABS)=exist-INCD

-:t -ütz] ja?mej ?i= küx -a?n
-PL.SAP-EXCL in_that_way A3(ABS)=finish-IRRD
'The town where we are is going to finish in that
way.' {vg2/508}

2.1.6 Quantifiers and Numbers

Quantifiers and numerals precede the head noun in nominal expressions. The most common quantifiers are ta?na

'many, a lot' na:k 'a few,' nijaʔmej 'all,' niʔtik 'a lot, many,' nijampaʔ 'all,' paʔko 'many,' and pi:nak 'a little, few.' These quantifiers can limit the scope of the object and can also modify the verb, limiting the scope of the action, (e.g. be a little bit hot, etc.).

Olutec, like other Mesoamerican languages, exhibits a number system that operates on a base of twenty (Campbell et al 1986). However, most of the speakers do not remember numbers higher than ten. Unlike the neighboring Mayan languages, Olutec numbers do not bear classifiers. The numbers are: tuk 'one,' metzko 'two,' tuwük 'three,' maktatzko 'four,' mokoxko 'five,' tujtujko 'six,' juxtukujtujko 'seven,' tukutujko 'eight,' ta:tztutujko 'nine,' maku 'ten,' ʔi:px 'twenty,' and tuk ʔawkuptuki 'one hundred.'

Olutec verbs can mark person and aspect following two different patterns: independent or dependent. Main clauses use the independent pattern, while subordinate clauses use the dependent pattern. Quantifiers and numerals are two of the sets of elements that trigger the dependent marking pattern for coding person and aspect when they precede a verb (see CH. 3, §§3.1 and 3.2). The ergative marker for dependent clauses is selected from the Set C paradigm, whereas the absolutive marker is selected from the Set A

paradigm. In the glosses, the aspect markers bear a "D" to indicate that they are selected from the paradigm of dependent aspectual markers.

- (59) a. paʔko ʔiʔawoʔk tyaktiji
paʔko ʔi= ʔawok ta= yak+tij-i
 many A3(PSR)=offspring C3(ERG)=produce-COMD
 '(The cat) had many kittens.' {aand/32}
- b. meskok weka ʔiʔiti
metzko=k weka ʔi= ʔit -i
 two =AN frog A3(ABS)=exist-INCD
 'There are two frogs.' {id1/304}

Note that quantifiers and numerals following the verb do not trigger the dependent marking pattern. In the following examples, the ergative marker is selected from the Set A paradigm, while the absolutive marker is selected from the Set B paradigm. The aspectual markers in (60) are selected from the paradigm of independent aspectual markers.

- (60) a. ʔiyaktijwaʔkok paʔko ʔiʔawoʔk
 ʔi= yak+tij-w -aʔ =koj =k
A3(ERG)=produce-COMI-PERF=just=AN
paʔko ʔi= ʔawok
 many A3(PSR)=offspring
 '(The cat) had had many kittens.' {aand/31}
- b. jamatuk mesko xujta:tutük tantükmü
 ø= jamat -u =k metzko xujta:tu-tük
B3(ABS)=arrive-COMI=AN two soldier -PL
 tan= tük -mü
 A1(PSR)=house-LOC
 'Two soldiers came home.' {id3/499}

2.1.7 Discontinuous Nominal Expressions

Olutec exhibits discontinuous nominal expressions, i.e., nominal expressions in which a noun and its semantically linked modifiers appear separated. Aissen (1987) has studied one type of discontinuous nominal expression found in Tzotzil. This phenomenon has not been investigated in any other Mesoamerican language. Olutec, similar to Tzotzil, allows nominal expressions in which the quantifier semantically linked to a noun may occur immediately before the modified noun, as in (61a-e)

(61) Quantifier_i + N_i

- a. $\text{?iyaktijuk tuwú?k ?i?awo?k jem}$
 $\text{?i= yak+tij-u =k tuwúk ?i= ?awok}$
 A3(ERG)=leave -COMI=AN three A3(PSR)=offspring
 je?+mü
 there
 'He had three children there.' {mil/189}
- b. $\text{ni?ja?me?k na:xü tyopopiyixü}$
 $\text{ni?ja?mej=k na:x ta= yopop+?i:y?-i =xü}$
 all =AN dirt C3(ERG)=throw -COMD=EV
 'He threw away all the dirt.' {lm4/581}
- c. $\text{?ijamatik mechi xujta:tutük}$
 $\text{?i= jamat -i =k metz+i xujta:tu-tük}$
 A3(ABS)=arrive-COMD=AN pair soldier -PL
 'A couple of soldiers came here.' {id3/506}
- d. $\text{?itu ta?na kaya?n wena?kxej}$
 $\text{ø= ?it -u ta?na kay+an wew+na?kxej}$
 B3(ABS)=exist-COMI a lot food those days
 'There was a lot of food in those days.' {lm3/389}

- e. jeʔxük ʔitunam tuʔk ʔitükunaʔk
 jeʔ =xü=k ʔi= tun -am tuk
 that=EV=AN A3(ERG)=make-IRRI one
- ʔi= tük -ʔunak
 A3(PSR)=house-DIM
 'That one is going to make one little house for her.' {lm3/433}

The quantifier may also occur separated from the modified noun by an intervening predicate, as in (62a-e).

(62) Quantifier_i + V + N_i

- a. pero tuwükak ʔiʔitküxi jamaj jaykaʔk
 pero tuwük=ak ʔi= ʔit -küx-i jamaj jaykak
 but three=AN A3(ABS)=exist-PL3-INCD that people
 'But those three people were (there).' {café/19}
- b. jama:k yoʔjwa niʔjaʔme:k tyaktiji koʔke ʔitükmü
 jamaj=k yoʔjwa niʔjaʔmej=k ta= yak+tij-i
 that =AN man all =AN C3(ERG)=leave -INCD
- koʔke ʔi= tük -mü
 fish A3(PSR)=house-LOC
 'That man is leaving all the fish in his house.'
 {pesca/154}
- c. mechik ʔitküxi wekawoʔk
 metzi=k ø= ʔit -küx-i weka-wok
 pair =AN B3(ABS)=exist-PL3-INCD frog-DIM
 'There are a couple of little frogs.' {id2/218}
- d. taʔna tyaktuni tüʔkxaʔn
 taʔna ta= yak+tun -i tüʔkx+an
 a lot C3(ERG)=fabricate-INCD candle
 'He makes a lot of candles.' {lm1/4}
- e. tuʔk moʔaʔk tzoyü
 tuk mo:yʔ-a -k tzoy
 one give -IMPR-INV.LOCAL medicine
 'Give me one medicine!' {rs4/235}

In Olutec, like in Tzotzil, the preverbal quantifier is always linked with the absolutive argument (only argument of intransitives, and theme of transitives and ditransitives). The discontinuous quantifier is never linked with the agent of a transitive verb or the recipient/benefactive of a ditransitive verb.

Unlike Tzotzil, Olutec allows discontinuous nominal expressions in which the preverbal modifier is not a quantifier. In (63a-d), the preverbal modifiers semantically linked with the postverbal nouns are demonstratives.

- (63) a. naʔkxek jeʔkü ʔiyokxkaʔi xuʔninakü
 naʔkxej=k jeʔ =k ʔi= yokx+kaʔ -i
 when =AN that=AN A3 (ABS)=jump_down-COMD

xuʔni-nak
 dog -DIM
 'That's when that little dog jumped downwards.'
 {id2/82}
- b. mü pek yaʔaj xtu:ti tanme:nyu
 jumü pek yaʔaj tax= tu:tʔ-i
 where trully this C1(ERG)=put -COMD

tan= me:nyu
 A1(PSR)=money
 'Where did I put my money?' {id3/58}
- c. ʔü:sak yaʔaj tyakʔo:ku tzanaʔy
 ʔü:tz=ak yaʔaj tan= yak+ʔo:k-u tzanay
 I =AN this A1(ERG)=kill -COMI snake
 'I killed this snake.' {rs4/191}
- d. yaʔaj taʔoyajtunu wenta:na
yaʔaj tan= ʔoya+ʔaj+tun-u wenta:na
 this A1(ERG)=fix -COMI window
 'I fixed this window.' {hijomez/15}

In (64a-c), a preverbal definite article is semantically linked with the postverbal noun.

- (64) a. jaʔk taʔe:pu tzanaʔy jem
jaʔ=k tan= ʔe:p-u tzanay jeʔ+mü
 DEF=AN A1(ERG)=see -COMI snake there
 'I saw the snake there.' {iguana/73}
- b. jaʔk tantu:tayu ʔixüwü
jaʔ=k tan= tu:tʔ-ay -u ʔi= xüw
 DEF=AN A1(ERG)=put -APPL1-COMI A3(PSR)=name
 'I named him.' (Lit. 'I put his name on him.')
- c. jaʔ minu taxjuyi koʔke
jaʔ mi:nʔ-u tax= juy-i koʔke
 DEF come -COMI C1(ERG)=buy-INCD fish
 'I came to buy the fish.' {viaj3/107}

In (65a-c), the two conjoins of conjoined nominal expressions appear separated by the verb.

- (65) a. jaʔk ʔipuyü ʔiwanayuk mü:t ʔipe:chu
jaʔ=k ʔi= puy ʔi= wa:nʔ-ay -u =k
 DEF=AN A3(PSR)=thigh A3(ERG)=want -APPL1-COMI=AN
 mü:t ʔi= pe:chu
 and A3(PSR)=breast
 'He wanted the (chicken's) leg and breast
 {rspf2/118}
- b. tüwiʔk tu:jü minu ʔuxüwi mü:t ja:mu
tüw+ik tu:j ∅= mi:nʔ-u ʔuxüwi mü:t ja:mu
 strong rain B3(ABS)=come -COMI night and wind
 'The downpour and the wind came last night.'
 {rspf2/397}

- c. tan mixtun \emptyset = ko:+chikx-kux-pa
 A1(PSR)=cat B3(ABS)=take_care-PL3-INCI.I
mü:t=ak tan= xu?ni-tük
 and =AN A1(PSR)=dog -PL
 'my cat and my dogs guard.' {rs2/94}

In (66a-b), the head nouns appear in preverbal position and the relative clauses modifying them appear in postverbal position.

- (66) a. te?ej kuxu je? jaykako?ke ?iyakto:kanü tü?tzaj
 te?ej kux -u je? jaykak+ko?ke
 now finish-COMI that sea_bass
 ?i= yak- to:k-a?n \emptyset = tü?tz-?aj
 A3(ABS)=PASS-sell-IRR B3(ABS)=dry -NMZR
 'Now, they finished selling the dried sea bass.'
 {viaj3/124}
- b. jaykako?ke nüxpa tapüki tü?tzaj
jaykak-ko?ke nüx-pa ta= pük -i
 sea_bass go-INCI.I C3(ERG)=grab-INCD
 \emptyset = tü?tz-?aj
 B3(ABS)=dry -NMZR
 'He used to buy dried sea bass.' {viaj3/29}

In (67a-b), the possessor and the possessum are separated by the verb.

- (67) a. je?k ko?yaj ta?nükak ?iko?panü
je? =k ko?yaj \emptyset = ta?nük=ak ?i= ko?pan
 that=AN devil B3(ABS)=big =AN A3(PSR)=hat
 'That devil's hat is big.' {diab2/19}

- b. jamaxükü naʔwunakü yoxtumpa jaʔk ʔiʔawoʔk
 jamaj=xü=k naʔw -ʔunak ø= yox+e+tun-pa
 that =EV=AN old_man-DIM B3(ABS)=work -INCI.I
- jaʔ=k ʔi= ʔawok
 DEF=AN A3(PSR)=offspring
 'The sons of that little old man work.' {desob/4}

Thus, the same rule that applies to quantifiers applies to other nominal modifiers. In all cases, the preverbal modifier is semantically linked with a postverbal absolutive argument. Agents, recipients and oblique nominal expressions are always expressed with continuous nominal phrases.

2.2 Verbs

Verb is the only word class that inflects for person, aspect, and mood. The inflectional and derivational verb morphology is explained in Chapters 3 to 6. Several basic verb classes can be recognized on formal and semantic grounds. There are two types of intransitive verbs, two types of ambitransitive verbs (labile), and one type of ditransitive verb.

2.2.1 Nonagentive Intransitive Verbs

Nonagentive intransitive verbs are a special semantic and formal class in Olutec. These verbs appear underived in the inchoative alternation, i.e., when they convey the change of state, condition or location of the only participant involved in the clause. The set of verbs within this class expresses events that are likely to happen without the presence of an external causer (Haspelmath 1993: 103). As any other intransitive verb, they are prefixed by the absolutive proclitic and followed by an aspectual suffix. When the verb is part of an independent clause with incompletive aspect, the suffix -pa follows the root, (68b). Under the same conditions, transitive verbs take the suffix -pe.

- (68) a. minʔo:kaʔne:t
 min- ʔo:k-aʔn -e:t
 A2(ABS)=die -IRR-PL.SAP
 'You (pl.) are going to die.' {rspf2/29}
- b. taxo:knüp
 ta= xo:k -nü -pa
 B1(ABS)=be wet-already-INCI.I
 'I am already getting wet.' {piojo/130}

Intransitive nonagentive verbs exhibit two formal properties that are not shared by agentive (activity) ambitransitive verbs (e.g. yoxetun 'work,' ʔetz 'dance,' tun

'do,' piyü?k 'run,' etc.). First, nonagentive verbs may appear with their subject incorporated, whereas the subject of agentive verbs never incorporates (see CH. §6). Example (69a) illustrates Type I Noun Incorporation (Mithun 1984) where the nominal expressing the subject, nü: 'water,' incorporates to the intransitive verb ?awkompet 'grow' forming a N+V compound. In (69b) the possessor of the subject is incorporated (Type II Noun Incorporation).

(69) a. Type I NI

nü:ʔawkompetpa
nü:- ʔawkom-pet -pa
 water-grow -UPWARDS-INCI.I
 'The stream is swelling up.'

b. Type II NI (External Possessor)

tapuʔpuye:ku
 ta= puʔpu-ye:k-u
 B1 (ABS)=belly-grow-COMI
 'My belly grew.' (Lit. 'I belly-grew.')

{C19/65}

And second, nonagentive intransitive verbs have to be derived by a causative or an applicative marker to form transitive verbs. The derived verb carries an ergative proclitic and takes the incompletive suffix for transitive verbs, -pe, in independent clauses.

(70) a. Intransitive (Nonagentive Change of State)

ʔo:kpak majaw
 ø= ʔo:k-pa =k majaw
 B3 (ABS)=die -INCI.I=AN woman
 'The woman is dying. {deaa/211}

b. Causative

ʔiyakʔo:knüpek ʔiʔi:tzümü
 ʔi= yak- ʔo:k-nü -pe =k ʔi=ʔi:tzümü
 A3 (ERG)=CAUS-die -already-INCI.T=AN A3 (PSR)=pig
 'He is already killing his pig.' {olu3/125}

In contrast, agentive ambitransitive verbs do not require further derivation when occurring in intransitive and transitive constructions.

(71) a. Intransitive (Agentive/activity)

ʔespa jaʔ
 ø= ʔetz -pa jaʔ
 B3 (ABS)=dance-INCI.I 3AN
 'He is dancing.' {rsch2/662}

b. Transitive (Agentive/activity)

ku:mwya ʔiʔesküxpe
 ku:mwya ʔi= ʔetz -küx-pe
 cumbia A3 (ERG)=dance-PL3-INCI.T
 'They are dancing cumbia.' {vg/652}

Derived non-agentive causative verbs such as yak-ʔo:k 'kill (CAUS-die)' as well as basic agentive ambitransitive verbs such as ʔetz 'dance' may incorporate their patient, may occur in reflexive and reciprocal constructions and may be passivized.

The following is an extensive list of intransitive nonagentive verbs that exhibit the features discussed above. Most of the verbs within this class express the change of state or condition of a patient. The other smaller semantic subclasses are labeled following a modified version of the classification of verbs proposed by Levin and Rappaport Hovav (1995): a) verbs of change of state or condition; b) verbs of appearance, disappearance, existence; c) verbs of emission (substance, light, sound, smell); d) verbs of motion or change of location; e) positionals; and f) phase verbs.

(72) a. Verbs of change of state or condition:

ʔanpakuj 'be angry, in a bad mood,' kimum 'go crazy,' moʔt 'become crazy,' moʔw 'become deaf,' koʔtak 'go bald,' ʔawmaʔkx 'get something stuck sideways in the throat,' kon 'shorten, shrink,' kuʔxux 'catch a cold (the chickens),' kuj 'hurt,' kü:wʔ 'get cooked,' maʔtzkaʔ 'fall down,' majaw 'ripen,' ʔo:k 'die,' ʔutz 'become full,' ʔuyuk 'become crooked,' puʔkx 'ripen, gain color,' pu:tzʔ 'rot,' püj 'burst,' pük 'ache, hurt,' ta:y 'slip,' tza:mʔ 'ripen, get fat,' tzeʔk 'become wrinkled,' tzutz 'become narrow,' wakx 'spread,'

chaʔm 'become pale,' jiʔkx 'drown in the water,'
joʔn 'loosen,' muj 'change color,' muk 'get
together,' mup 'go numb,' pak 'spread out,' xo:k
'get wet,' yon 'lengthen, stretch,' xo:tz
'wither,' xux 'go numb,' xuxum 'go numb,' ye:k
'grow (a person, the grass),' yom 'boil,' yopop
'pile up, stir up,' yo:tz 'evaporate,' ʔa:tz 'for
a vine to grow,' kom 'grow,' ʔumum 'bud,' ʔi:k
'expand,' jokox 'heat,' jaj 'become hot,' pakik
'become cold,' toy 'become hot, burn,' xe:m
'become cold,' tux 'become cold,' ma:jʔ 'sleep,'
jutuk 'wake up,' miʔkx 'blink,' mon 'calm down,'
wüʔm 'nod off like when one is falling asleep.'

b. Verbs of appearance, disappearance and existence:

ʔawʔixe:p 'spill,' chiʔt 'come up (like flowers),'
jo:y 'lose,' keʔx 'be born, appear,' mux
'germinate, be born,' yüʔk 'be born, get ready,'
naxkaʔ 'vanish, wrinkle,' pey 'evaporate, dry up
(water),' piʔtz 'extinguish, darken.'

c. Verbs of emission (light, sound, smell and
substance):

ʔawtüʔkx 'shine,' tza:yʔ 'illuminate, roast,' yeʔk
 'lightning,' likiw 'sound the rattle,' lokot 'make
 noise of boiling water, noise of the stomach when
 one has diarrhea,' pimim 'thunder (thunder),
 crack, sound of water pouring,' rrütüt 'squeak,'
toroʔkx 'produce cracking noise,' tzukuk 'grunt,
 squeek,' xikiw 'produce a sound the rattle,' xopop
 'produce a lot of noise upon falling (of water),'
ʔawʔuxup 'spill (water),' ʔe:m 'fester, become
 large (a pimple with pus),' ʔo:p 'produce foam,'
jo:m 'sweat,' ki:xʔ 'swell,' jukuk 'stink,' ʔawoʔ
 'yawn,' jetiʔktz 'sneeze,' muʔt 'spout,' pomom
 'steam,' pü:t 'bleed,' xejej 'pant.'

d. Motion verbs (change of location):

ʔüxküm 'fall,' jamat 'arrive at another place,'
ke:kʔ 'get out, move,' mi:nʔ 'come,' nükx 'go,'
pitzüm 'exit,' po:yʔ 'flee,' rrü:w 'go up and come
 down (kite), swarm (bees),' tij 'stay,' yaʔt
 'arrive here (from there to here).'

e. Positional

te:nkej 'be standing (a skinny person),' kap 'be
 lying down (a large person),' paw 'be standing (a

two-legged entity),' kü:y? 'be in a puddle (liquid),' mokotz 'be sitting (a fat person),' koj+tekek 'be leaning (a person),' tekek 'be standing with the arms at the waist and chest out (a person),' we?kek 'be standing with legs spread (a person),' ?awük 'be with the mouth open,' ?a:xi+ten 'be with the hair straight up,' ?oxow 'be ruffled,' ko?+ma?chi 'be hardheaded,' ju:yuy 'be skinny,' pakü 'be skinny,' pam 'be standing up,' ten 'be standing up straight,' tzo:t 'be seated,' ju:n 'be seated,' kup 'be squatting down with the narrowest part up,' wej 'be with the legs spread.'

f. Phase verbs:

?ix?i:y? 'begin,' ko?pitzüm 'finish,' küx 'finish,' po:x 'delay, last.'

2.2.2 Nonagentive Bivalent Intransitive Verbs

Nonagentive bivalent intransitive verbs select for two nonagentive arguments. The first one is a theme and the second one is a location or experiencer. Nonagentive bivalent intransitive verbs are also known in the literature

as extended intransitive verbs (Dixon 2000), double subject or double unaccusative verbs (Chappell 1999). Among the Olutec verbs belonging to this class are ʔut 'like' and ʔit 'have.'

- (73) a. taʔutüpa:tüs jaʔ nü:tzü
 ta= ʔut -ü -pa -:t -ütz jaʔ nü:tz
 B1 (ABS)=like-INV-INCI.I-PL.SAP-EXCL DEF armadillo
 'I like the armadillo.' {olu28/733}
- b. taʔitüp tuʔk yoxenaʔk
 ta= ʔit -ü -pa tuk yox+e-nak
 B1 (ABS)=have-INV-INCI.I one work -DIM
 'I have one little job.' {olu4/39}

The formal and semantic properties of this class of verbs are amply discussed in Chapter 3, §6.

2.2.3 Nonagentive Ambitransitive Verbs

Nonagentive ambitransitive verbs form a class that consists of change of state verbs and nontranslational motion verbs. This class of verbs shows the same form in the inchoative and the causative alternations. These verbs are also known in the literature as labile verbs (cf. Nichols 1982, 1984; Haspelmath 1993). The set of verbs within this group encodes events that may occur spontaneously without an external cause or with equal possibility instigated by an external cause. When nonagentive ambitransitive verbs follow

the transitive pattern, they include a cause that is responsible for the change of state of the affected patient. The nonagentive ambitransitive verb in the intransitive pattern excludes a causing agent and presents the event as occurring spontaneously. Hence, the object of the transitive form and the subject of the intransitive form convey the same semantic role. In the inchoative alternation, the verb bears the absolutive proclitic and the incompletive for intransitives -pa. In contrast, in the causative alternation the verb bears the ergative proclitic and the incompletive for transitives -pe. As an illustration consider the change of state verb jik 'become dirty/make sth. dirty' which appears in its basic form when functioning as either intransitive or transitive.

- (74) a. jikpa seme tuk
 ∅= jik -pa seme tuk
 B3 (ABS)=become dirty-INCI.I very one
 'One gets very dirty.' {olu28/522}
- b. ?ijikpe kayan
 ?i= jik -pe kay+an
 A3 (ERG)=make dirty-INCI.T food
 'He is making the food dirty.' {aand/114}

Nonagentive ambitransitive verbs follow the same noun incorporation pattern of nonagentive intransitive verbs. The subject of intransitive nonagentive ambitransitive verbs may be incorporated. The example in (75) illustrates a case of

Type II NI (Mithun 1984) in which the head of the possessed nominal phrase incorporates and the possessor occupies the syntactic slot assigned to the subject.

- (75) mikü?mutzu
 mi= kü?- mutz -u
 B2 (ABS)=hand-break-COMI
 'Your hand broke.'

The list of the most common nonagentive ambitransitive verbs that exhibit the same form in the causative and inchoative alternations is given in (76). The verbs are grouped in five different semantic subclasses. The first subclass includes the different types of breaking and splitting verbs. The second subclass includes verbs of opening, closing and covering. The third and fourth subclasses include the verbs of change of configuration and change of state. And finally, the sixth subclass includes the verbs of nontranslational motion.

- (76) a. Break verbs:

je?k 'split logs,' kü:tz 'break, split,' mo:t
 'break dry things,' woj 'break off,' je?tz
 'remove, snap (corn), pull off,' ti?kx 'snap
 something rigid (small stick, tree),' mutz 'break
 (fragile things),' pot 'break, burst,' pu?x

'crumble,' way 'crumble (the floor, waste from a tree or from wood),' papx 'snap, break (a branch of a tree),' pu? 'split, crack,' tza?px 'split wood,' tze?px 'crack into little pieces (wood).'

b. Open/close/cover verbs:

?awtzo? 'cover, close,' nu?x 'cover with something with two dimensions (e.g. rag),' jot 'open, make a hole,' kaj 'bar up.'

c. Change of configuration verbs:

?ixit 'spread out, scatter,' wiw 'spread out, spill, scatter,' xit 'spread out, spill, disperse,' ji:tz 'untie, get loose,' kej 'untie, unwrap,' wüj 'untie,' ne?k 'fold,' tüj 'fold,' nu:t 'wrinkle.'

d. Change of state verbs:

jik 'be/make dirty,' kujum 'injure, hurt,' mot 'be/make sth. salty, curse,' tzet 'burst, crush, squash,' tzü:kx 'roast (coffee), to toast (tortilla),' xo:x? 'cook in water.'

e. Nontranslational motion:

jaweʔt 'shake, move,' xipx 'turn over,' pitit
 'turn,' yo:m 'mix,' yüx 'shake, sway,' ʔe:m
 'stretch,' kit 'bend, twist,' maj 'turn upside
 down (pot, dish),' ʔo:y 'bend,' we:n 'stretch.'

2.2.4 Agentive Ambitransitive Verbs

Agentive ambitransitive verbs consist of predicates that may occur in intransitive and transitive clauses without derivation. Unlike nonagentive ambitransitive verbs, the argument structure of agentive ambitransitive verbs includes a semantic agent in both intransitive and transitive clauses, i.e., the semantic role of the "S" of the intransitive verb corresponds to the semantic role of the "A" of the transitive counterpart. For instance, the verb kay 'eat' appears in its basic form in both intransitive and transitive clauses. The subject of both forms corresponds to the eater. The "S" in (77a) is marked by the absolutive, whereas the "A" in (77b) is marked by the ergative. The incompletive aspect is marked by -pa in the intransitive and by -pe in the transitive.

- (77) a. porke taka:kaypa:t
 porke ta= ka:=kay-pa -:t
 because Bl (ABS)=NEG=eat-INCI.I-PL.SAP
 'We don't eat.' {rs1/53}

- b. ?asta tankaype mixtu?n
 ?asta tan= kay-pe mixtun
 even Al(ERG)=eat-INCI.T cat
 'I even eat cats.' {rs2/86}

Agentive and nonagentive ambitransitive verbs show all the properties associated with canonical transitive verbs. They can co-occur in reflexive/reciprocal constructions, they can be passivized, and they can incorporate their objects.

Agentive ambitransitive verbs do not exhibit the inchoative alternation since none of these verbs in their intransitive form conveys a change of state, location or condition of its only core argument.

The causative alternation for agentive ambitransitives is based on the intransitive form that does not include a patient as a core argument. The derived verb conveys an event in which a causer instigates the causee (an agent) to perform an activity. The derived predicate is monotransitive. The causer is marked by the ergative proclitic, and the verb bears the incompletive suffix -pe, (78a). The ill-formed structure in (78b) shows that the patient may not be expressed as a syntactic argument, i.e., the causative yak- may only derive intransitive verbs into monotransitive ones.

- (78) a. mü:t tanyakaype pek ja?
 mü:t tan= yak- kay-pe pek ja?
 and Al(ERG)=CAUS-eat-INCI.T trully 3AN
 'And I feed him.' {aand/117}
- b. * tan= yak- kay-pe ja? nü:n
 Al(ERG)=CAUS-eat-INCI.T 3AN tortilla
 (Intended reading: 'I am making him eat
 tortillas.')

The following is an extensive list of the most common agentive ambitransitive simple verbs. The verbs are grouped in semantic subclasses, some of which exhibit syntactic correlates that are not going to be discussed here.

- (79) a. Verbs of saying and speaking:

ʔampiw 'tell, explain, talk about something,'
ʔawtumatz 'imitate,' ʔawtzow 'answer, respond,'
kapx 'speak,' meʔmeʔmti:yʔ 'speak a foreign
 language; speak as a baby,' nüm 'say,' koʔtzow
 'ask for,' tze:k 'scold.'

- b. Verbs of contact:

ʔawpa:t 'kiss,' tzu:kx 'kiss,' chip 'scratch,'
kitz 'scratch,' jep 'scrape,' jun 'scrape,' chi:wʔ
 'bathe (to use/apply liquid),' jipin 'scrub,' jütz
 'grind, scrape, brush, rub,' ka:x 'comb,' ke:px
 'scratch, shave,' kow 'drum,' kox 'hit (with the

fist), ' kup 'puncture,' mapx 'shoot,' poj 'kick,'
we:y 'lick,' pokx 'knock (door), to play (ex.
marimba, drum),' wop 'beat, hit, drum, strike a
blow,' wo:k 'play a stringed instrument, scratch.'

c. Verbs of cutting:

kaʔtz 'cut into pieces,' jü:t 'saw,' ket 'cut the
tortilla in half,' ketz 'cut (with a machete),'
tuk 'cut (coffee, fruit),' tzuk 'cut (with a
knife),' tzukx 'cut (with scissors).'

d. Cognate object verbs:

ʔawwoʔ 'open the mouth, yawn,' ʔetz 'dance,' ʔojoʔ
'cough,' ʔü:tz 'throw up,' chi:xʔ 'fart,' juʔk
'smoke,' jüyta:kʔ 'play, shout,' jü:kx 'breathe,
roar, bray, snore,' ta:tzʔ 'urinate,' tü:nʔ
'shit,' tzuj 'spit,' tzi:t 'whistle' wi:k
'whistle,' xu:xʔ 'play (a musical instrument),
whistle,' muʔ 'blow the horn, whistle using the
hands as an instrument,' xej 'exhale, breath deep,
pant, moan,' xi:kʔ 'laugh,' ya:xʔ 'sing, scream,
bark.'

e. Verbs of motion and manner:

ʔe:kx 'limp,' piyüʔk 'run,' waʔk 'walk quickly,'
we:tz 'crawl,' wit 'walk, stroll, to walk on
something,' yokx 'jump, jump up and down,' tü:y
'sway, rock, swing,' yun 'swim.'

f. Verbs of carrying:

ʔix 'carry a child, watch,' kap 'carry (on the
shoulder),' ke:tz 'pick up (dirt),' kü:yʔ 'carry
on the head,' meʔpx 'carry holding in arms,' tzüm
'carry (on the back, shoulder).'

g. Verbs of consumption:

kay 'eat,' ʔok 'chew,' ʔu:k 'drink,' jü:n
'swallow,' mukx 'bite,' tzuʔtz 'bite.'

h. Verbs of transaction:

to:k 'sell,' tzo:kʔ 'pay,' juy 'buy,' yak 'give,
let, offer.'

i. Verbs of catching and grabbing:

koʔpx 'catch,' matz 'grab with the hands,' mek
'pick up to make piles,' mü:kx 'milk, squeeze.'

j. Verbs of working activities:

yoxetun 'work,' puj 'wash,' ki:p 'clean,' je:p
 'fish,' tüp̄x 'twist rope,' xuy 'sew,' taj 'hoe,
 dig,' mo:tz 'wrap (tamales),' mü:kʔ 'make
 tamales,' kü:t 'grind grains,' moʔtz 'grind with a
 mortar,' püʔkx 'make tortillas by patting the
 dough, slap.'

k. Verbs of throwing, pushing, pulling and pressing:

tzak 'throw, send,' ton 'push,' na:w 'throw,
 push,' tuj 'throw, shoot (with a rifle),' wotz
 'pull,' tu:tʔ 'put,' wü:n 'pull, ring the bell,'
nüʔtz 'to press,' po:tz 'hug, press.'

l. Others:

ʔawʔix 'wait,' ʔawmotow 'listen,' motow 'listen,'
chikx 'take care,' jan 'trick, lie,' kipx
 'measure, weigh,' pa:t 'reach, find,' ja:yʔ
 'write,' may 'count,' koy 'paint,' naʔtz 'paint,'
tun 'do, make,' pük 'take, get,' wa:nʔ 'want,
 wish.'

Notice that the paradigm of Olutec agentive
 ambitransitive verbs includes many of the activity verbs
 that in other languages are agentive intransitives. In

Olutec, cognate object verbs, (79d), and motion and manner verbs, (79e), may be part of transitive constructions without further derivation. The object in transitive constructions with these two types of verbs is usually a nominalized form cognate with the verbal root, (80a) or a nominal expressing an affected goal, (80b).

- (80) a. ʔijuʔkanxük ʔijuʔkpe
 ʔi= juʔk -an =xü=k ʔi= juʔk -pe
 A3 (PSR)=smoke-NMZR=EV=AN A3 (ERG)=smoke-INCI.T
 'He is smoking his cigar.' {rschl/346}
- b. tanyokxtuku jeʔ ka:yetük
 tan= yokx-tuk -u jeʔ ka:ye-tük
 A1 (ERG)=jump-DIR:across-COMI that street-PL
 'I jumped those streets.' {aand/546}

2.2.5 Ditransitive Verbs

The verb mo:yʔ 'give' is the only non-derived ditransitive verb. The rest of the ditransitive verbs are derived by the applicative -ay.

- (81) a. tamoypek ʔixüknüʔunaʔk
 tan= mo:yʔ-pe =k ʔi= xük- nü: -ʔunak
 A1 (ERG)=give -INCI.T=AN A3 (PSR)=beans-water-DIM
 'I am giving him bean soup.' {aand/69}
- b. ʔojeʔl tajuyayu ʔina:xü
 ʔojel tan= juy-ay -u ʔi= na:x
 Ojel A1 (ERG)=buy-APPL1-COMI A3 (PSR)=land
 'I bought Ojel's land.' {aand/551}

The properties of these verbs and the constructions they are

part of are discussed amply in Chapter 6, §1.

2.3 Adverbs

Adverbs are words that belong to an open class. They indicate direction, time, manner and location. There are no morphological grounds to consider adverbs as a uniform class. However, words functioning as adverbs trigger a dependent marking pattern for person and aspect when they occur before the verb, as shown in the following examples (for further explanation see CH. 3, §3.2).

(82) a. Directional Adverb

yukpi ?iya:xpete xu?nina?k
yuk+pi ?i= ya:x?pet -e xu?ni-nak
 upwards A3(ABS)=bark -DIR:up-INCD dog -DIM
 'The little dog is barking upwards.' {id2/101}

b. Time Adverb

japo:mna ?itü?tza?n
japo:m =na ?i= tü:tz?-a?n
 tomorrow=still A3(ABS)=dry -IRR
 'It will be dry tomorrow.' {rspf2/421}

c. Manner Adverb

?oyamexük ?ikayi
?oyamej =xü=k ?i= kay-i
 properly=EV=AN A3(ABS)=eat-COMD
 'They ate properly.' {rs3/96}

d. Location Adverb

yam xyaktijiʔk
yaʔ+mü tax= yak+tij-i -k
 here C1(LOCAL)=leave -INCD-INV.LOC
 'You leave me here.' {rp3/145}

2.4 Affective Words

Affective words are a special set of lexemes that occur before a light verb (e.g. intransitive motion verbs such as mi:nʔ 'come' or transitive verbs such as tun 'do'). These words do not inflect for aspect or person. They usually encode manner of motion or the sound or noise produced when the event takes place. Affective words are formed by reduplicated syllables followed by the suffix -naʔ. Some of the affective words in their non-reduplicated form function also as verb roots. All the affective words in (83) have a corresponding non-reduplicated verb form.

(83) a. mikitmikitnaʔ kawa:yuʔmak ʔimi:no
mikit+mikit -naʔ kawa:yu-mü =ak
 rushing+REDUP-STATZR horse -LOC=AN

ʔi= mi:nʔ-nü -i
 A3(ABS)=come -already-INCD
 'He was trotting fast on the top of the horse.'
 {diabl/83}

- b. chikiwchikiwna? taxtojpete tüpxi namü?aj
chikiw+chikiw-na? tax= toj+pet-e
 hanging+REDUP-STATZR C1(ERG)=climb -INCD
- tüpx+i ø= nam-?aj
 rope B3(ABS)=new-NMZR
 'I am climbing it with the new rope.' {viaj2/49}
- c. yam pokxpokxna? ?imi?n mü:t ?iwasto?n
 ya?+mü pokx+pokx -na? ?i= mi:n?-i
 here knocking+REDUP-STATZR A3(ABS)=come -INCD
- mü:t ?i= waston
 with A3(PSR)=cane
 'She was coming here with her cane.' {aandc/108}
- d. ?e:y?e:yna? ?iwiti kata
?e:y+?e:y -na? ?i= wit -i kata
 moving_waist+REDUP-STATZR A3(ABS)=walk-INCD Cata
 'Cata walks moving her waist.'
- e. nikitnikitna?xü ?imi?n ?iyokxe jaytzu?
nikit+nikit -na? =xü ?i= mi:n?-i
 running_fast+REDUP-STATZR=EV A3(ABS)=come -INCD
- ?i= yokx-e jaytzu?
 A3(ABS)=jump-INCD deer
 'The deer came running fast, it was jumping.'
 {C8/20/37}

Other affective words are formed by sound symbolic roots.

These roots usually include sounds that are not attested in
 in any other type of word (e.g. /rr/, /r/ and /l/).

(84) Affective Words Derived from Symbolic Roots

- a. ki:tki:tna?k ?iya?xi wi:ktzü?n
ki:tki:t -na? =k ?i= ya:x?-i wi:ktzün
 ki:t+REDUP-STATZR=AN A3(ABS)=cry -INCD hawk
 'The hawk cries kiit kiit.'

- b. koroskorosna? ?itunta?ki
 korotz+korotz-na? ?i= tun+ta:k?-i
 clicking+REDUP-STATZR A3 (ABS)=do -INCD
 'He is making a clicking noise with his mouth.'
- c. kürrütkürrütna?k ?iya?xi koyawajwaj
 kürrüt+kürrüt-na? =k ?i= ya:x?-i koyawajwaj
 kürrüt+REDUP-STATZR=AN A3 (ABS)=cry-INCD toucan
 'The toucan is crying kürrütkürrüt'
- d. la?pla?pna? ?itunta?ki xu?ni ?ita:tzük
 la?p+la?p =na? ?i= tun+ta:k?-i
 la?p+REDUP=STATZR A3 (ABS)=do -INCD

 xu?ni ?i= ta:tzük
 dog A3 (PSR)=ear
 'The dog's ears do la?pla?p'
- e. rrü:wrrü:wna? ?itunta?ki tzachi
 rrü:w+rrü:w -na? ?i= tun+ta:k?-i tzachi
 buzzing+REDUP-STATZR A3 (ABS)=do -INCD fly
 'The fly is buzzing.'

2.5 Adpositions and Relational Nouns

Olutec exhibits five native adpositions and thirteen relational nouns that mark the thematic relation of peripheral participants. There is one preposition, mü:t 'with,' which marks associative and instrumental nominal phrases, three locative postpositions (-pi, and -mü and -je?+mü, all of them glossed as LOC for 'locative') and two temporal postpositions (?itü and maye, both of them glossed as TEMP for temporal postposition).

2.5.1 The Preposition mü:t `with'

The preposition mü:t `with' appears as a free morpheme before any of the constituents of the instrumental or associative nominal expression.

(85) a. Instrumental

taka:xik ?oyamej mü:t ka:xa?n
 ta= ka:x-i =k ?oyamej mü:t ka:x+an
 C3(ERG)=comb-COMD=AN properly with comb
 'He combed her very well with a comb' {rsch2/165}

- b. jumü ?iyoxtoni mü:t je?xü ma:kinanakü
 jumü ?i= yox+e+tun-i mü:t je? =xü ma:kina-nak
 where A3(ABS)=work -INCD with that=EV train -DIM
 'Where is he working with that little train?
 {burdel/47}

(86) Associative

- a. nüxpak takaye mü:t ?ita:tatük
 nüx-pa =k ta= kay-e mü:t
 go -INCI.I=AN C3(ERG)=eat-INCD with
 ?i= ta:ta -tük
 A3(PSR)=grandson-PL
 'He is going to eat with his grandsons.'
 {aand/278}

- b. ta tzakno?onak yo?jwatük yoxtumpa? mü:t ta?nü?k
 tumi?n
 ta tzak-nü -a?n =ak yo?jwa-tük
 OPT send-already-IRRD=AN man -PL
 yox+e+tun-pa+? mü:t ta?nü?k tumin
 work -NF with big money
 'I hope he already sent the workers with a lot of
 money.' {rs1/78}

2.5.2 The Locative Postpositions -pi, -mü and je?+mü

The locative postpositions -pi and -mü are suffixes that attach to head of the nominal phrase in oblique function. These two postpositions have very generalized locative meaning, being translatable into English 'at,' 'on,' 'in,' etc. I have not been able to establish the difference in meaning between -pi and -mü. Both of them occur with the same set of verbs and nouns under the same contexts without any apparent change in meaning. None of the locative postpositions convey direction. The allative (87) or ablative (88) sense obtained in the translations is inferred from the verb of the clause or from the discourse context that surrounds the peripheral participant.

- (87) a. mo:t tük_{mü}
 mo:t tük -mü
 let's_{go} house-LOC
 'Let's go home.' {compa/112}
- b. mo:t kape?nüp
 mo:t kape?nü:-pi
 let's_{go} Acayucan-LOC
 'Let's go to Acayucan.' {diab2/43}
- (88) a. ti: ?u:ra pü:ke? ?ipitzümi ?itükmü
 ti: ?u:ra pü:k=je? ?i= pitzüm-i
 what hour DUB =CLEFT A3(ABS)=exit -COMD

 ?i= tük -mü
 A3(PSR)=house-LOC
 'Who knows at what time he came out from his house.' {viaj2/10}

- b. jeʔ ʔu:rak ʔipitzümi wep ʔitükpi
 jeʔ ʔu:ra=k ʔi= pitzüm-i wew -pi
 that hour =AN A3(ABS)=exit -COMD there-LOC
- ʔi= tük -pi
 A3(PSR)=house-LOC
 'At that time he came out from there, from his
 house.' {piojo/118}

In the following examples the postpositions appear in
 clauses with stative verbs.

- (89) a. jemxük ʔiʔitno ʔitükmü
 jeʔ+mü=xü=k ʔi= ʔit -nü -e
 there =EV=AN A3(ABS)=exist-already-INCD
- ʔi= tük -mü
 A3(PSR)=house-LOC
 'He was there, in his house.' {diab2/139}
- b. jenkok ʔiʔiti ʔitü:yaʔmpi
 jeʔ+mü=koj =k ʔi= ʔit -i
 there =just=AN A3(ABS)=exist-INCD
- ʔi= tü:y+an-pi
 A3(PSR)=hammock-LOC
 'He is there in his hammock.' {ropa/27}

The postposition -pi may appear after nouns expressing time.

- (90) a. tzu:pxükok ʔipitzümi ʔiʔüwi puʔjuyu
 tzu: -pi =xü=koj =k ʔi= pitzüm-i
 night-LOC=EV=just=AN A3(ABS)=exit -INCD
- ʔi= ʔüw -i puʔjuyu
 A3(ABS)=sing-INCD roadrunner
 'The roadrunner comes out to sing at night.'
 {zopil/205}
- b. jeʔ yakaypa ʔuxüʔpü
 jeʔ ø= yak- kay-pa ʔuxüw -pi
 that B3(ABS)=PASS-eat-INCI.I afternoon-LOC
 'She eats in the afternoons.' {olu3/64}

The postpositions always appear immediately after the head of the nominal phrase in oblique function. Genitive phrases with locative function are syntactic contexts in which this can be clearly shown. Recall that a noun functioning as possessor may occur either before or after its head. The order PSR-PSM is shown in (91a); while the order PSM-PSR is shown in (91b). The postposition is suffixed to the PSM in both cases.

- (91) a. ʔijamatik ʔimajaw ʔitükümü
 ʔi= jamat -i =k ʔi= majaw
 A3 (ABS)=arrive-COMD=AN A3 (PSR)=woman

 ʔi= tük -mü
 A3 (PSR)=house-LOC
 'He came to his wife's house.' {iguana/48}
- b. jeʔ ʔu:rak ʔipetpowikoj ʔiwinmü nuʔpu
 jeʔ ʔu:ra=k ʔi= pet -pow -i =koj
 that hour =AN A3 (ABS)=ascend-again-COMD=just

 ʔi= win-mü nuʔpu
 A3 (PSR)=top-LOC buzzard
 'At that time, he climbed again on the top of the
 buzzard.' {olu5/245}

The examples in (92) show that nominal suffixes and enclitics follow the postposition:

- (92) a. tükxneje:tüʔs tana:xmü:teküʔs
 tan= nükx-nü -i -e:t -ütz
 A1 (ABS)=go -already-COMD-PL.SAP-EXCL

 tan= na:x -mü -:tek -ütz
 A1 (PSR)=earth-LOC-PL.SAP-EXCL
 'We already went to our towns.' {olu28/875}

- b. ʔitükpixüʔk ʔiʔiti
 ʔi tük -pi =xü=k ʔi= ʔit -i
 A3 (PSR)=house-LOC=EV=AN A3 (ABS)=exist-INC
 'He was in his house.' {olu4/135}

The suffix -jem is also a locative postposition that bears a very general meaning. It is translatable with the English prepositions 'on,' 'in,' 'from,' 'at,' etc. The postposition -jem grammaticalized from the locative adverb jem 'there' which is formed by the morpheme jeʔ 'that' and the postposition -mü. (89a-b) illustrate jem functioning as an adverb. The use of -jem as a postposition is illustrated in (93a-c). In the second line of the examples, both the postposition and the adverbial forms are written as -jeʔ+mü to make explicit their etymological source. The adverb is glossed as 'there,' while the postposition is glossed as 'LOC.'

- (93) a. jama:k tamaktzükü jeʔ ʔu:rak tatu:ti jünjem jeʔ
 chi:nu
 jamaj=k tan= maktzük jeʔ ʔu:ra=k
 that =AN A1 (PSR)=sister that hour =AN
 ta= tu:tʔ-i jün -jeʔ+mü jeʔ chi:nu
 C3 (ERG)=put -COMD fire-LOC that honey
 'At that time my younger sister put that honey on
 the fire.' {abeja/29}
- b. ʔikoʔpakjemak mixmoʔanü
 ʔi= koʔpak-jeʔ+mü=ak mix= mo:yʔ-aʔn
 A3 (PSR)=head -LOC =AN C2 (ERG)=give -IRRD
 'You are going to hit him on his head.'
 {compa/104}

- c. niʔtiʔk ʔipetküxik ʔajajem
 niʔtik ʔi= pet -küx-i =k ʔaja -jeʔ+mü
 everything A3 (ABS)=ascend-PL3-COMD=AN canoe-LOC
 'All of them got on to the canoe.' {olul/92}
- d. tükxpa:tüʔs tzuktakajem
 ta= nüx-pa -:t -ütz tzuktaka-jeʔ+mü
 B1 (ABS)=go -INCI.I-PL.SAP-EXCL Juile -LOC
 'We are going to go to Juile.' {olu28/42}

2.5.3 The Temporal (and Locative) Postpositions

The enclitics ʔitü and maye follow a very limited set of nouns expressing location and a wide variety of nouns expressing time when they are peripheral arguments. The enclitic ʔitü comes from the verb ʔit 'exist;' while the enclitic maye comes from the verb may 'count.' The vowel after the verbal root may be a nominalizer. ʔitü, in its function as locative postposition, has been attested in the corpus with the names of cardinal points.

- (94) a. yam xüwja:muʔaj ʔitük ʔipakawi
 yaʔ+mü xüw-ja:mu+ʔaj ʔitü=k ʔi= pakaw
 here hot-wind LOC=AN A3 (ABS)=go straight
 -i
 -COMD
 'He went straight towards the south (lit. hot-wind).' {vg/88}

- b. ya:pak ?ipakawe tuxükja:mu?aj ?itü
 ya?+pi=ak ?i= pakaw -e tuxük-ja:mu+?aj
 here =AN A3(ABS)=take_a_way-INCD cold- wind

?itü

LOC

'Here, he went towards the north (lit. cold-wind).' {vg/91}

The oblique phrases marked by maye, in its function as locative postposition, bear a distributive meaning.

- (95) a. ?inaxtukükik tükü maye
 ?i= nax+tuk-kük-i =k tük maye
 A3(ABS)=cross -PL3-INCD=AN house LOC
 'They are walking house by house.' (C11a/97/76)
- b. kuyü maye mimpete
 kuy maye min= pet -e
 tree LOC A2(ABS)=ascend-INCD
 'You are climbing tree by tree.'

In its function as temporal postposition ?itü appears when the nominal expression refers to a particular point in time that happens only once, (96a-b). In contrast, maye appears when a particular unit within a time cycle happens more than once, e.g. various Sundays of a month or of a year, several mornings of a week or of a month, several months of a year, several years in one person life time, etc. See the examples in (97).

- (96) a. japoy ?itü tantzapiyü?kne
 japoy ?itü tan= tzap+piyü?k -nü -i
 morning TEMP A1(ABS)=get_up_smoothly-already-COMD
 'I got up in the morning.' {rs6/5}

- b. xüw ?itü ta na:tajuna
 xüw ?itü tan= na:- taj-u =na
 dry_season TEMP A1(ERG)=CIRC-dig-COMI=still
 'I dug around it when it was still the dry
 season.' {lm3/542}
- (97) a. je?k tajayma?jiw ?ajchi ni?ti?k tumi:nku mayek
 ?ipitzümi
- je? =k tan= jayma?jiw ?ajchi ni?tik
 that=AN A1(PSR)=deceased brother all
- tumi:nku maye=k ?i= pitzüm-i
 Sunday TEMP=AN A3(ABS)=exit -INCD
 'My late older brother used to go out all
 Sundays.' {aandc/333}
- b. xa:patu mayexü?k tatunküxi ?amü
 xa:patu maye=xü=k ta= tun-küx-i ?am
 Saturday TEMP=EV=AN C3(ERG)=do -PL3-INCD huapango
 'They had huapango (type of dance) every
 Saturday.' {diabl/5}
- c. ?uxüp maye naxpak jem
 ?uxüw -pi maye ø= nax -pa =k je?+mü
 afternoon-LOC TEMP B3(ABS)=cross-INCI.I=AN there
 'She passes by in the afternoons.' {aand/374}
- d. ni?ti?k po?a maye ?inükxküxi
 ni?tik po?a maye ?i= nüx-küx-i
 every moon TEMP A3(ABS)=go -PL3-INCD
 'They used to go every month.' {sarnozo/46}
- e. xyaktzi? chikixawo?k ni?ti?k xiwit maye
 tax= yak+tzi:y?-i chikix -?awok ni?tik
 C1(ERG)=capture -INCD parakeet-DIM every
- xiwit maye
 year TEMP
 'I used to capture little parakeets every year.'
 {abeja/19}

The form ?itü exhibits an additional function. It has become a subordinator of temporal clauses (see §2.6).⁴

2.5.4 Relational Nouns

Olutec exhibits a set of fourteen nouns that specify a subregion of a locational phrase, such as the English complex form top in on top of. I will refer to them as relational nouns (RN). The source of RN's are body parts and parts of wholes. The set of RN's with their etymological sources is given in (98).

(98)	<u>Relational Noun</u>	<u>Source</u>
a.	<u>RN's with PSR-PSM Syntax</u>	
	<u>ʔaw</u> 'at the entrance'	<u>ʔaw</u> 'mouth'
	<u>niʔtzuk</u> 'on top of'	<u>niʔtzuk</u> 'peak'
	<u>jüʔna</u> 'behind'	?
b.	<u>RN's without PSR Prefixes</u>	
	<u>jüp</u> 'tip, point, top'	<u>jüp</u> 'nose'
	<u>jot</u> 'in, inside (of)'	<u>jot</u> 'innards, stomach'
	<u>küx</u> 'surface'	<u>küx</u> 'back'
	<u>puʔpu</u> 'flat surface'	<u>puʔpu</u> 'belly'
	<u>win</u> 'on top of, on'	<u>win</u> 'eye'
	<u>xutu</u> 'below, behind'	<u>xutu</u> 'buttocks'
	<u>toj+jot</u> 'inside'	<u>toj-</u> 'INSTR' + <u>jot</u> 'innards, stomach'
	<u>paʔt</u> 'inside, under'	?
c.	<u>RN's Reanalyzed as Postpositions</u>	
	<u>paʔw</u> 'edge, shore'	<u>paʔw</u> 'bank'
	<u>pu:t</u> 'in the middle'	<u>pu:t</u> 'middle'

Two of the RN's have grammaticalized as true postpositions, (98c), and eight others are in an

intermediate stage between canonical possessed nouns and true postpositions, (98b). In the least grammaticalized stage, the RN occurs marked for both a possessor and a locative postposition. The two forms in (98c) have undergone semantic change but maintain the syntax of the original oblique possessive construction.

(99) N_i PSR_i-RN-POSTPOSITION

- a. $\text{ʔitüp xükü majaʔn ʔiʔawjem}$
 $\emptyset = \text{ʔit } -\text{ü } -\text{pa } \text{xük } \text{majan}$
 B3 (ABS)=exist-INV-INCI.I beans pitcher

 $\text{ʔi} = \text{ʔaw } -\text{jeʔ+mü}$
 A3 (PSR)=entrance-LOC
 'The pitcher has beans on its opening.'
- b. tükü ʔiniʔtzukpi
 $\text{tük } \text{ʔi} = \text{niʔtzuk-pi}$
 house A3 (PSR)=top -LOC
 'On the top of the house.' {ropa/204}
- c. $\text{mü:txüʔk jeʔ majaw ʔijüʔna:pxüʔk ʔiküjñükxüniy ʔikoʔpaʔn}$

 $\text{mü:t=xü=k jeʔ majaw ʔi} = \text{jüʔna -pi} = \text{xü=k}$
 and =EV=AN that woman A3 (PSR)=behind-LOC=EV=AN

 $\text{ʔi} = \text{küj- nüx-nü } -\text{i } -\text{y } \text{ʔi} = \text{koʔpan}$
 A3 (ABS)=APPL2-go-already-COMD-INVD.C A3 (PSR)=hat
 'And that woman's hat fell off behind her.'
 {rsch2/89}

The RN's in (98b), unlike ʔaw, niʔtzuk, and jüʔna, do not bear the possessor proclitic intervening between the possessum (PSM) (i.e., the RN) and the possessor (PSR) (i.e., the noun coreferential with the PSR proclitic). That

is, the oblique phrase is no longer a canonical genitive phrase. The RN is followed by any of the three general postpositions (-jem, -mü, or -pi).

(100) N-RN-POSTPOSITION

- a. me:roxü?k ?itu?sjüpmü
 me:ro =xü=k ?i= tu?tz-jüp-mü
 exactly=EV=AN A3(PSR)=tail -tip-LOC
 '[...] exactly at the tip of the tail.' {koya/194}
- b. tatu:tik ?ikuxtattjotpi
 ta= tu:t?-i =k ?i= kuxtatt-jot -pi
 C3(ERG)=put -COMD=AN A3(PSR)=sack -inside-LOC
 'He put it inside of his sack.' {olu2/33}
- c. tanka?i na:xküxmü
 tan= ka? -i na:x -küx -mü
 A1(ABS)=descend-INCD ground-surface-LOC
 'I fall down on the ground.' {vg/668}
- d. tu?k rra:yana?k yam ?i?iti potzapu?pu?m
 tuk rra:ya-nak ya?+mü ?i= ?it -i
 one line -DIM here A3(ABS)=exist-COMD

potza-pu?pu -mü
 wall -flat surface-LOC
 'There was a little line here, on the wall.'
 {id3/561}
- e. ka?uk tükwimpi
 ø= ka? -u =k tük -win-pi
 B3(ABS)=descend-COMI=AN house-top-LOC
 'He fell down from the top of the house.'
 {mil/280}

- f. tamoyik we:lta tükxutu?pü
 ta= mo:y?-i =k we:lta tük -xutu -pi
 C3(ERG)=give -COMD=AN turn house-behind-LOC
 'He turned behind the house.' {rspf2/62}
- g. ?i?iti tantüktojotpi
 ?i= ?it -i tan= tük -toj+jot-pi
 A3(ABS)=exist-INCD A1(PSR)=house-inside -LOC
 'It is inside my house.' {rs2/93}
- h. ?ixajkü?pa?tpi tamü:mi?n
 ?i= xajkü?-pa?t -pi ta= mü: -mi:n?-i
 A3(PSR)=armpit-under-LOC C3(ERG)=ASSOC1-come -INCD
 'He is carrying it (a banana) under his armpit.'
 {rspf1/429}

The RN's in (98c) exhibit two features that are unique to this set. First, they do not bear the possessor proclitic cross-referencing the semantic possessor; and second, they do not bear any of the three general postpositions (-jem, -mü, or -pi). The relational nouns of this third set function as true postpositions since they are the heads of the endocentric postpositional phrase.

(101) N-RN

- a. ?ijamatikü nü:pa?awü
 ?i= jamat -i =k nü: -pa?w
 A3(ABS)=arrive-COMD=AN water-shore
 'He arrived to the bank of the river.' {pesca/170}
- b. jem ?i?iti tu?a:pu:tü
 je?+mü ?i= ?it -i tu?aw-pu:t
 there A3(ABS)=exist-COMD road -middle
 'There he was, in the middle of the road.'
 {olu2/126}

2.6 Subordinators

Most of the Olutec subordinators appear at the left edge of the subordinate clause. There is some comparative and internal evidence showing that this is an innovative pattern. In Zoquean languages, subordinators occur at the right edge of the subordinated clause (cf. Johnson 2000 for San Miguel Chimalapa Zoque). Olutec has one temporal subordinator that follows the embedded clause, ?itü.

- (102) ja:tukaj ko:xo ?itü?kxi ?itü jemxük ?i?iti
rri:wpa?a?w
- ja:+tuk+?aj ko:xo ?i= tü?kx-i ?itü
other day A3(ABS)=dawn -COMD SUBDR
- je?+mü=xü=k ?i= ?it -i rri:w-pa?w
there =EV=AN A3(ABS)=exist-INCD river-edge
'When the light came out the next day, he was
there, on the shore of the river.' {ropa/217}

The most common Olutec subordinators are na?kxej 'when,' and jumü 'where,' (ni)?ixi 'like, as,' and ta 'if (conditional).'

- (103) a. nija?mejkok tatuni na?kxej ?ika?i tra:stetü?k
ni+ja?mej=koj =k ta= tun-i
same =just=AN C3(ERG)=do -COMD
- na?kxej ?i= ka? -i tra:ste-tük
when A3(ABS)=descend-INCD dish -PL
'He did the same when the dishes fell down.'
{zopil/140}

- b. jaʔ munye:kowoʔk tanʔe:pe jumü naʔtzek ʔiʔiti
 jaʔ munye:ko-wok tan= ʔe:p-pe
 DEF doll -DIM A1(ERG)=see -INCI.T
- jumü naʔtz-ek ʔi= ʔit -i
 where paint-PCP A3(ABS)=exist-INCD
 'I was looking at the dolls where it is painted.'
 {ropa/174}
- c. jemak ʔiminküxno ʔixi mixtuntük ʔiminküxno
 jeʔ+mü=ak ʔi= mi:nʔ-küx-nü -e
 there =AN A3(ABS)=come -PL3-already-INCD
- ʔixi mixtun-tük ʔi= mi:nʔ-küx-nü -e
 like cat -PL A3(ABS)=come -PL3-already-INCD
 'There they come like cats come.' {id3/126}
- d. ʔe:ptaypa jeʔ mu:xi ta ka: pü:k ʔe:püp
 ʔe:p-ta:yʔ-pa jeʔ mu:xi ta ka: pü:k
 see -ANDAT-INCI.I that bird COND NEG DUBIT
- ø= ʔe:p-ü -pa
 B3(ABS)=see -INV-INCI.I
 'The bird was watching as if there wasn't anyone
 watching it.' {rsch2/282}

Olutec exhibits many subordinators that were borrowed from Spanish. The most common of these subordinators are: para 'for, in order,' porke 'because,' mente (< Spanish mientras) 'while,' and ʔenke (<Spanish aunque) 'even though.'

- (104) a. jeʔk ʔimü:nükxpe niʔtiʔk para tyakju:ni:küxanxü
jeʔ na:xü

jeʔ =k ʔi= mü:+nükx-pe niʔtik
that=AN A3(ERG)=take -INCI.T everything

para ta= yak+ju:n+ni:yʔ-küx-an =xü jeʔ na:x
for C3(ERG)=obtain -PL3-IRR=EV that earth
'He got everything in order to obtain the land.'
{id3/334}

- b. jeʔ ʔu:ra tanükxi porke jamatuk mesko xujta:tutük
tantükmü

jeʔ ʔu:ra tan= nükx-i porke ø= jamat
that hour A1(ABS)=go-COMD because B3(ABS)=arrive

-u =k metzko xujta:tu-tük tan= tük -mü
-COMI=AN two soldier -PL A1(PSR)=house-LOC
'I left at that time because two soldiers came to
my house.' {id3/499}

- c. ʔiʔu:kpek ʔinü:jü wa:suʔp mente jama:k ʔe:pʔo:kpa
ʔi= ʔu:k -pe =k ʔi= nü: wa:su-pi
A3(ERG)=drink-INCI.T=AN A3(PSR)=water glass-LOC

mente jamaj=k ø= ʔe:p+ʔo:k-pa
while that =AN B3(ABS)=observe -INCI.I
'He was drinking the water in the glass while the
other was observing.' {rsch2/207}

- d. taʔutüw seme tyoxtoni ʔenke tankujumi
ta= ʔut -ü -w seme tan= yox+e+tun-i
B1(ABS)=like-INV-COMI very A1(ABS)=work -INCD

ʔenke tan= kujum-i
even_if A1(ABS)=sick -COMD
'Even when I was sick, I liked to work very much.'
{lm3/44}

3. Three Construction Types

Three constructions are discussed in this section: 1) question formation; 2) auxiliary constructions; and 3) complement clauses.

3.1 Questions

Olutec has no special morphological marker for polar (yes/no) questions. This type of question is marked with a special rising intonation:

- (105) a. *tzü?ki:küxu ja? nimechi*
 ø= *tzü?k+?i:y?-küx-u ja? ni+metz+i*
 B3(ABS)=be afraid -PL3-COMI DEF pair
 'Did they both get scared?' {vg/430}
- b. *tükju:ni:pak ya:pü jaykakü*
 ø= *tük+ju:n+ni:y?-pa =k ya?+pi jaykak*
 B3(ABS)=live -INCI.I=AN here people
 'Do people live here?' {vg/618}
- c. *mimotowa? je? ?ampiw*
 min= *motow-w -a? je? ?ampiw+i*
 A2(ERG)=hear -COMI-PERF that conversation
 'Did you hear the conversation?' {vg/796}

Content questions involve a set of interrogative pronouns which occur clause-initially. This set includes *jumej* 'how,' *pün* 'who,' *ti:* 'what,' *cha?aj* 'which,' *jupa?* 'how much, how many,' *jumü* 'where,' and *na?kx+mü* 'when':⁵

- (106) jumej ?itüpak tuminü
jumej ø= ?it -ü -pa =k tumin
 how B3 (ABS)=exist-INV-INCI.I=AN money
 'How does he have money?' {vg2/321}
- (107) pün ?ijuyu mina:xütekü
pün ?i= juy-u min= na:x-tek
 who A3 (ERG)=buy-COMI A2 (PSR)=land-PL.SAP
 'Who bought the land of you all?' {vg3/386}
- (108) ti: miyaktzü?kiyüw
ti: mi= yak- tzü?k+?i:y?-ü -w
 what B2 (ABS)=CAUS-be afraid -INV-COMI
 'What made you afraid?' {vg/378}
- (109) cha?aj minwampe
cha?aj min= wa:n?-pe
 which A2 (ERG)=want -INCI.T
 'Which one do you want?'
- (110) jupa? tyaktzo?ke:tü?s
jupa? tan= yak- tzo:k?-e -:t -ütz
 how_much A1 (ABS)=PASS-pay -INCD-PL.SAP-EXCL
 'How much do we get paid?' {rp2/80}
- (111) jumü mixtuni kama
jumü mix= tun -i kama
 where C2 (ERG)=make-COMD corn_field
 'Where did you make the corn field.' {vg3/121}
- (112) na?kxmü tawimpita?n
na?kx+mü tan= wimpit-a?n
 when A1 (ABS)=return-IRR
 'When am I going to come back?' {olu28/219}

When instruments (113), recipients (114), associatives (115), or reasons (116) are questioned, the verb is obligatorily marked by an applicative which encodes the semantic role of the questioned participant. That is, there are no complex question words such as 'with what,' 'for whom,' 'with whom,' and 'for what (i.e., why).' In Olutec,

the question word only stands for the object of the adposition. The adposition is not expressed in the clause.

- (113) ti:k ?itojuyam ja:tu?k jaj ko:xo
ti: =k ?i= toj- juy-am ja:+tuk ja? ko:xo
 what=AN A3(ERG)=INSTR-buy-IRRI another DEF day
 'What is she going to buy it with next day.'
 {olu6/53}
- (114) pün minto:kayu
pün min= to:k-ay -u
 who A2(ERG)=sell-APPL1-COMI
 'Who did you sell it to?' {aandc/373}
- (115) a. pün ?imü:tijamü
pün ?i= mü:- tij -am
 who A3(ERG)=ASSOC1-stay-IRRI
 'Who is he going to stay with?' {rspf2/780}
- b. pün mintomokayuk tzana?y
pün min= toj+mü:-kay-u =k tzanay
 who A2(ERG)=ASSOC2- eat-COMI=AN snake
 'With whom did you eat the snake?'
- (116) ti: mintokokaype
ti: min= toko- kay-pe
 what A2(ERG)=REASON-eat-INCI.T
 'Why are you eating it?' {lm4/98}

3.2 The Auxiliary Construction

Olutec has a paradigm of eight auxiliaries, i.e., grammaticalized verbs with defective argument structure.⁶ Three of the members of this paradigm convey motion (117a) and five function as phase and modal auxiliaries, (117b).

(117) a. Motion AUX

<u>mi:nʔ</u>	'come'
<u>nükx</u>	'go'
<u>ʔoy</u>	'go and return (only in completive)'

b. Phase (Aspectual) and Modal AUX

<u>po:x</u>	'delay'
<u>küx</u>	'finish'
<u>ʔix+ʔi:yʔ</u>	'begin'
<u>ʔit</u>	'progressive, deontic'
<u>jat</u>	'be able, can'

Auxiliaries (AUX) always precede the main verb in a construction that will be labeled "auxiliary construction." In (118a) the auxiliary nükx 'go' occurs before an intransitive main verb, whereas in (118b), the same auxiliary occurs before a transitive main verb.

(118) a. AUX + V2 (Intransitive)

nükxu tamaʔji
nükx-u tan= ma:jʔ-i
 go -COMI A1(ABS)=sleep-INCD
 'I went to sleep.'

b. AUX + V2 (Transitive)

nükxaʔnak taxʔe:pe tamajaw
nükx-aʔn =ak tax= ʔe:p-e tan= majaw
 go -IRRD=AN C1(ERG)=see -INCD A1(PSR)=woman
 'I am going to see my wife.' {olu5/37}

The main feature that distinguishes auxiliaries from full-fledged verbs is the pattern for marking person and number. Auxiliaries do not carry person or number markers, whereas

full-fledged verbs do. All the members of the set listed in (117) have intransitive lexical counterparts that take absolutive proclitics and plural markers when functioning as main verbs. In (119a-b), the form nükx 'go' functions as a full-fledged verb. In (119a), the subject is marked on the verb by the first-person proclitic, ta=, and the plural marker -a:t. In (119b), the subject is marked on the verb by the third-person proclitic ?i= and the plural marker -kük.

- (119) a. tanükxama:t tana:xmü
ta= nükx-am -a:t tan= na:x-mü
 B1(ABS)=go -IRRI-PL.SAP A1(PSR)=land-LOC
 'We will go to my homeland.' {rp2/256}
- b. nimetzi ?inükxküxi tu?kuti?k
 nimetzi ?i= nükx-kük-i tu?kutik
 pair A3(ABS)=go -PL3 -INCD together
 'The two of them go together.' {rspf1/336}

In complex constructions with a matrix (V1) and an embedded verb (V2), both verbs are marked by person and number cross-referencing the subject. Thus, the verb nükx bears person and number when functioning as matrix predicate of motion-cum-purpose constructions.

- (120) a. tejpe? tanükxno?oma:t taxpüki:t me:nyu
 tejpe? ta= nükx-nü -am -a:t
 now B1(ABS)=go -already-IRRI-PL.SAP
- tax= pük -i -:t me:nyu
 C1(ERG)=grab-INCD-PL.SAP money
 'And now we are already going to get the money.'
 {desob/85}

- b. ʔinükxküxi tapüküxi jeʔ tzoyü
 ʔi= nükx-küx-i ta= pük -küx-i jeʔ
 A3 (ABS)=go -PL3-INCD C3 (ERG)=grab-PL3-INCD that
 tzoy
 medicine
 'They are going to get that medicine.'
 {sarnozo/63}

In the examples (118a-b), nükx 'go' is unmarked for person. The proclitic referring to the coreferential subject is only marked on V2. The same pattern is attested when the coreferential subject is plural. The plural suffix only occurs on V2.

(121) AUX (*PL) + V2 (PL)

- a. nükxam xyakpitzümi:t jeʔ ko:chinaʔk
 nükx-am tax= yakpitzüm-i -:t jeʔ
 go -IRRI C1 (ERG)=pull_out -INCD-PL.SAP that
 ko:chi-nak
 car -DIM
 'We are going to pull out that little car.'
 {lm2/306}
- b. naʔkxej nükxik takepküxi ja:yajtüʔk
 naʔkxej nükx-i =k ta= kep -küx-i
 when go -INCD=ANIM C3 (ERG)=look_for-PL3-INCD
 ja:yaj-tük
 other -PL
 'When the other ones went to look for him.'
 {olu26/59}

The properties shown for the auxiliary nükx 'go' are shared by the other members of the paradigm in (117). Note

that none of the auxiliaries in the following examples carry person or number.

(122) AUX + V2

- a. ti: yaʔaj minu mixtuni
 ti: yaʔaj mi:nʔ-u mix= tun-i
 what this come -COMI C2(ERG)=do -INCD
 'What did you come to do?' {viaj3/106}
- b. ʔoyuk tawimpitikoʔ taxʔe:ptaʔki
ʔoy-u =k tan= wimpit-i =koʔ
 go -COMI=AN A1(ABS)=return-INCD=just

 tax= ʔe:p+ta:kʔ-i
 C1(ERG)=see -INCD
 'I went and just returned to see him.' {rs6/55}
- c. po:xu seme tyoxtuni
po:x -u seme tan= yox+e+tun-i
 delay-COMI very A1(ABS)=work -INCD
 'I expended a lot of time working.' {lm3/232}
- d. ka:küxi takayküxi
 ka:=küx -i ta= kay-küx-i
 NEG=finish-COMD C3(ERG)=eat-PL3-COMD
 'They didn't finish eating it.' {lm4/543}
- e. ʔixiyi minaxe
ʔix+ʔi:yʔ-i min= nax -e
 begin -INCD A2(ABS)=cross-INCD
 'You began to walk.' {deaa/97}
- f. ʔitpa tiʔk minükxaʔn
ʔit -pa tiʔk min= nükx-aʔn
 exist-INCI.I CFCT A2(ABS)=go -IRRD
 'You have to go.' {C8/30/50}
- g. ka:jatpak xyake:keʔe:t
 ka:=jat -pa =k
 NEG=be_able-INCI.I=AN

tax= yak+ke:kʔ-aʔ -e -:t
 C1(ERG)=take_away-APPL1-INCD-PL.SAP
 'We cannot take away that from him.' {lm2/173}

It is important to note that out of a set of fourteen intransitive verbs that conflate motion, deixis and orientation, only three have become auxiliaries: mi:nʔ 'come,' nükx 'go' and ʔoy 'go and return.' The rest of the motion verbs, such as pitzüm 'exit,' jamat 'arrive there,' tükʔi:yʔ 'enter,' yaʔt 'arrive here,' pet 'ascend,' kaʔ 'descend,' yüʔk 'leave,' wimpit 'return,' nax 'cross,' tuk 'cross,' tij 'stay,' require the absolutive proclitic and the plural suffix in the morphosyntactic contexts in which the true auxiliaries do not. (123b) shows that a non-auxiliary, such as the motion verb jamat 'arrive there,' must be preceded by the absolutive proclitic; otherwise the V1-V2 construction is ill-formed.

- (123) a. taʔnaxü jaykaʔk ʔijamate tapüki jeʔ nü:jü
 taʔna=xü jaykak ʔi= jamat-e
 a_lot =EV people A3(ABS)=arrive-INCD

 ta= pük -i jeʔ nü:
 C3(ERG)=grab-INCD that water
 'A lot of people arrive there to get water.'
 {sarnozo/53}
- b.* taʔna=xü jaykak jamat -e ta= pük -i
 a_lot=EV people arrive-INCD C3(ERG)=grab-INCD

 jeʔ nü:
 that water

Quantifiers (Q's) exhibit a different syntactic behavior in auxiliary constructions versus in V1+V2

constructions (V1 is a non-grammaticalized matrix verb). Quantifiers modifying the single argument of intransitive verbs and the theme of transitive verbs may form discontinuous expressions, i.e., the quantifier may occur in preverbal position, whereas the nominal being modified may occur following the verb. In (124), the preverbal quantifier is semantically linked with the single argument of the intransitive verb (S).

(124) Q Modifying ``S''

mechik ʔiʔitküxi wekawoʔk
metz+i=k ʔi= ʔit -küx-i weka-wok
 pair =AN A3(ABS)=exist-PL3-INCD frog-DIM
 'There are two little frogs.' {id2/218}

The preverbal quantifier modifies the theme of a transitive verb in (125a), and the theme of a ditransitive verb in (125b),

(125) Q Modifying the Theme

- a. taʔna tatuni tüʔkxaʔn
taʔna ta= tun -i tüʔkx+an
 a_lot C3(ERG)=make-INCD candle
 'He makes a lot of candles.' {lm1/4}
- b. mesko tamoyi kuytüʔm
metzko ta= mo:yʔ-i kuytüm
 two C3(ERG)=give -COMD avocado
 'He gave them two avocados.' {rspf1/354}

In AUX+V2 clauses, the preverbal quantifier semantically linked with the theme of the main verb (V2) may occur before the auxiliary, as shown in (126a-c).

(126) Q_i-AUX-V2-N_i

- a. mesko ʔoyi takepe yoxtunpaʔtük
metzko ʔoy-i ta= kep -e
 two go -COMD C3(ERG)=look_for-INCD

 yox+tun+pa+ʔ-tük
 worker -PL
 'He went (and returned) to look for two workers.'
- b. nijaʔmej küxi mixto:ke mintzapuyinü
nijaʔmej küx -i mix= to:k-e
 all finish-COMD C2(ERG)=sell-INCD

 min= tzapuyin
 A2(PSR)=green_onion
 'Did you finish selling all your green onions.'
 {aandc/119}
- c. mokoxko nüxik takoʔtzoweʔ piyuwoʔk
mokoxko nüx-i =k ta= koʔtzow-aʔ -i
 five go -COMD=AN C3(ERG)=request-APPL1-INCD

 piyu -wok
 chicken-DIM
 'He went to ask her for five little chickens.'

In contrast, the quantifier may never occur before V1 in V1+V2 constructions, as shown in (127c).

(127) a. V1-V2-Q_i-N_i

mipitzümu mixkepe mesko yoxtunpa?tük
 mi= pitzüm-u mix= kep -e
 B2 (ABS)=exit -COMI C2 (ERG)=look_for-INCD

metzko yox+tun+pa+?-tük
 two worker -PL
 'He went to look for two workers.'

b. V1-Q_i-V2-N_i

mipitzümu mesko mixkepe yoxtunpa?tük
 mi= pitzüm-u metzko mix= kep -e
 B2 (ABS)=exit -COMI two C2 (ERG)=look_for-INCD

yox+tun+pa+?-tük
 worker -PL
 'He went to look for two workers.'

c. * Q_i-V1-V2-N_i

mesko minpitzümi mixkepe yoxtunpa?tük
metzko min= pitzüm-i mix= kep -e
 two A2 (ABS)=exit -COMD C2 (ERG)=look_for-INCD

yox+tun+pa+?-tük
 worker -PL
 'He went to look for two workers.'

This difference indicates that the AUX+V2 forms a tighter syntactic unit in relation to V1+V2.

Thus, Olutec auxiliaries may be defined as a closed set of grammaticalized verbs with a defective argument structure, i.e., they do not carry pronominal proclitics or plural suffixes in contexts where their lexical counterparts do. An additional piece of evidence that supports this view

comes from a construction in which the auxiliary is followed by a passivized V2.

Olutec passives are intransitive clauses with only one core argument. The agent in passives cannot be expressed. The active transitive clause in (128a) contains an agent and a patient as core arguments. In contrast, in the passive clause shown in (128b), the agent is omitted and the patient (signaled by the absolutive on the verb) represents the only clausal argument.

- (128) a. jeʔk ʔimajaw jempoʔk takepe jeʔk to:ki
 jeʔ =k ʔi= majaw jeʔ+mü=mpok
 that=AN A3(PSR)=woman there =also

 ta= kep -e jeʔ =k to:ki
 C3(ERG)=look_for-INCD that=AN iguana
 'His wife was also there looking for the iguana.'
 {iguana/65}
- b. naʔkxej tanyakepe
 naʔkxej tan= yak- kep -e
 when A1(ABS)=PASS-look_for-INCD
 'When I am being looked for.' {viaj2/55}

Auxiliaries can occur before a passivized V2. The only syntactic argument of this complex construction refers to the semantic patient of V2. The entity that moves, which in the active version is coreferential with the semantic agent of V2, cannot be expressed in the passive version of AUX+V2, not even as an oblique phrase. English does not have this type of passive, making the translation awkward. To

translate this type of example I use the pronoun 'they,' which identifies the moving entity coreferential with the agent of V2, even though in the Olutec clauses none of these participants is an argument of the clause.

(129) Motion AUX + Passivized V2

- a. $\text{ʔoyuk ʔiyakkepe ʔalwanyil}$
 $\text{ʔoy-u =k ʔi= yak- kep -e ʔalwanyil}$
 go-COMI=AN A3(ABS)=PASS-look_for-INCD mason
 '(They) went (and came back) to look for the mason.' {café/6}
- b. $\text{mimpak ʔiyakpa:te yam maka:ya}$
 $\text{mi:nʔ-pa =k ʔi= yak- pa:t-e yaʔ+mü}$
 come -INCI.I=AN A3(ABS)=PASS-find-INCD here

 maka:ya
 Macaya
 '(They) come to meet her, here in Macaya.'
 {vg/349}
- c. $\text{kuypi yaʔk nüxki ʔiyaktu:ti}$
 $\text{kuy -pi yaʔ =ak nüx-i ʔi= yak- tu:tʔ-i}$
 stick-LOC that=AN go -COMD A3(ABS)=PASS-put -INCD
 '(They) went to put him in jail.' {café/90}

(130) Phase AUX + passivized V2

- a. $\text{yaʔaj tuwüko ko:xo ʔiʔitij küxu ʔiyaktzoʔke}$
 $\text{yaʔaj tuwüko ko:xo ʔi= ʔit -i -j}$
 this third day A3(ABS)=exist-INCD-INV.D.I

 $\text{küx -u ʔi= yak- tzo:kʔ-e}$
 finish-COMI A3(ABS)=PASS-pay -INCD
 'That was finished being paid three days ago.'
 {rp3/940}

- b. jeʔ ʔu:rak ʔixiʔk ʔiyaktzumi tu:ru
 jeʔ ʔu:ra=k ʔix+ʔi:yʔ-i=k ʔi= yak- tzum-i
 that hour =AN begin-COMD=AN A3(ABS)=PASS-tie -INCD
- tu:ru
 bull
 'At that time, (they) began to tie up the bull.'
 {koya/114}

The fact that the only core argument does not correspond to the mover, (129a-c), or to the entity that begins or finishes doing the action, (130a-b), clearly demonstrates that the auxiliary does not contribute to the argument structure of the AUX+V2 clauses.

The defective argument structure of auxiliaries can also be seen in the formation of associative and instrumental questions, i.e., questions that ask information about an instrument or an associative participant involved in the clause. When an instrument is questioned, the question word ti: 'what' takes the first position of the clause. The verb that follows bears the instrumental applicative toj-. The applicative increases the verb valency by one (see Ch. 6 for an extensive discussion on the applicative construction).

- (131) ti:k ʔitojmeʔtkotu jeʔ nü:nü
ti: =k ʔi= toj- meʔt+kot-u jeʔ nü:n
 what=AN A3(ERG)=INSTR-press -COMI that tortilla
 'What did he press the tortilla with?' {rspf2/84}

When an associative is questioned, the verb is preceded by either ti: 'what' or pün 'who' depending on the animacy of the associative participant. The verb following the question word bears the associative applicative mü:-.

- (132) a. ti: mimü:mimpe
ti: min= mü:- mi:n?-pe
 what A2 (ERG)=ASSOC1-come -INCI.T
 'What are you bringing?' {aandc/179}
- b. pün ?imü:nükxu
pün ?i= mü:- nükx-u
 who A3 (ERG)=ASSOC1-go -COMI
 'Who did he go with?' {rp3/148}

The same pattern is attested when an associative or instrument belonging to a motion-cum-purpose clause is questioned. The question word takes the first position of the clause. The applicative is attached to both the motion verb and the verb in second position encoding purpose.

(133) Question Formation with Motion-cum-Purpose (V1-V2)

a. Instrument is Questioned

ti: mintojpetu mixtojtuki ma:ngu
ti: min= toj- pet -u
 what A2 (ERG)=INSTR-ascend-COMI

mix= toj- tuk-i ma:ngu
 C2 (ERG)=INSTR-cut-INCD mango
 'What did you use to climb to cut mangoes?'

b. Associative is Questioned

pün mimü:pitzümu mixmü:kaye
pün min= mü:- pitzüm-u
 who A2 (ERG)=ASSOC1-exit -COMI

mix= mü:- kay-e
 C2 (ERG)=ASSOC1-eat-INCD
 'Who did you go out to eat with?'

A different pattern is attested when an instrument or an associative belonging to an auxiliary construction is questioned. In this type of construction, the applicative prefix attaches only to the main verb (V2).

(134) Question Formation with AUX+V2Instrument is Questioned

a. ti ?ixiyu mixtojtuki mangu
ti: ?ix+?i:y?-u mix= toj- tuk-i ma:ngo
 what begin -COMI C2 (ERG)=INSTR-cut-INCD mango
 'What did you use to begin cutting the mango?'

b. ti: ?oyu mixtojyak?o:ke ?i:tzümüwokü
ti: ?oy-u mix= toj- yak-?o:k-e
 what go -COMI C2 (ERG)=INSTR-CAUS-die-INCD

?i:tzümü-wok
 pig -DIM
 'What did you go to kill the little pigs with?'

(135) Associative is Questioned

a. pün kuxu mixmü:kaye
pün kux -u mix= mü:- kay-e
 who finish-COMI C2 (ERG)=ASSOC1-eat-INCD
 'With whom did you finish eating?'

- b. pün ?ixiyu mixmü:witi
 pün ?ix+?i:y?-u mix= mü:- wit -i
 who begin -COMI C2(ERG)=ASSOC1-walk-INCD
 'With whom did you begin walking'

Thus, the pattern found in question formation confirms that auxiliaries have a defective argument structure since they cannot bear valency increasing devices under conditions in which full-fledged verbs do.

3.3 Complement Clauses

Olutec exhibits two types of complement clauses. The form of the complement clause is determined by the governing predicate. Complement clauses can be conveyed as independent clauses or as dependent clauses. There are only two governing predicates that trigger the independent pattern: nüm 'say, tell' and ko?tzow 'ask'. The rest of the complement-taking verbs trigger the dependent pattern in the embedded clause.

Complement clauses following the dependent pattern will be examined first. Dependent clauses following a matrix predicate, auxiliary or adverb carry a proclitic from Set A for encoding the absolutive argument and a proclitic from Set C for encoding the ergative argument. The aspectual markers in dependent clauses are -i or -e 'incompletive,' -i

completive and -aʔn 'irrealis' (see CH. 3, §3.2). When the subject of the matrix and the complement clause is coreferential, both the matrix and the embedded verb carry person and aspect. The complement verbs in (136a, b) are intransitive and mark their subject with a proclitic from Set A. In (136a), the aspect of the embedded verb is incompletive, while in (136b), the aspect is irrealis.

- (136) a. ʔika:wampeʔ ʔikapxe
 ʔi= ka:=wa:nʔ-pe =k ʔi= kapx-e
 A3(ERG)=NEG=want -INCI.T=AN A3(ABS)=talk-INC
 'He doesn't want to talk.' {aandb/157}
- b. pün ʔiwampeʔ ʔikapxanü
 pün ʔi= wa:nʔ-pe -ʔ
 who A3(ERG)=want -INCI.T-NMZR
- ʔi= kapx-aʔn
 A3(ABS)=talk-IRR
 'Whoever wants to talk (should talk).' {aandb/163}

The complement verbs in (137a, b) are transitive. The agent in the complement clause is marked by a proclitic from Set C.

- (137) a. tan wanu tiʔk taxkaptaknükxaʔn
 tan= wa:nʔ-u tiʔ =k
 A1(ERG)=want -COMI CFCT=AN
- tax= kap -tak -nükx-aʔn
 C1(ERG)=carry-LNKR-go -IRR
 'I wanted to carry him (on my shoulders).'
- {lm3/376}

- b. jeʔk yoʔjwa je:pak tawani tamü:nükxan san jwaʔn
 jeʔ =k yoʔojwa jeʔ+pi=ak ta= wa:nʔ-i
 that=AN man there=AN C3(ERG)=want -COMD
- ta= mü:+nükx-aʔn san jwan
 C3(ERG)=take -IRRD Saint John
 'That man wanted to take Saint John there.'
 {rp3/841}

When the subject of the complement is not coreferential, the verb is marked in the same way as when the subject is coreferential. That is, the subject of the embedded verb is marked with a proclitic from Set A.

- (138) a. tanka:ja:moto:pe rrwi:do ʔimiʔn
 tan= ka:=ja:= motow-pe
 A1(ERG)=NEG=MIRAT=hear -INCI.T
- rrwi:do ʔi= mi:nʔ-i
 noise A3(ABS)=come -INCD
 'I don't hear the noise coming.' {aandc/163}
- b. naʔkxej mixʔe:pe ʔitujküxi
 naʔkxej mix= ʔe:p-e ʔi= tuj -küx-i
 when C2(ERG)=see -INCD A3(ABS)=shoot-PL3-INCD
 'I didn't hear them shooting.' {id3/187}
- c. tawampe mixmü:tükiʔaʔn taʔapu
 tan wa:nʔ -pe
 A1(ERG) want -INCI.T
- mix= mü:+tük+ʔi:yʔ-aʔn tan= ʔapu
 C2(ERG)=have_sex_with-IRRD A1(PSR)=grandfather
 'I want you to have sex with my grandfather.'
 {burdel/83}

The object of the complement appears overtly marked on the verb by the absolutive proclitic only when the embedded verb follows the inverse pattern, i.e., when the theme outranks

the agent in person or saliency. The suffix -j signals that the embedded verb follows the inverse pattern.

- (139) a. tanka:wampe kamyoʔn mijützützaʔnej
 tan= ka:=wa:nʔ-pe
 A1(ERG)=NEG=want -INCI.T
- kamyon min= jützütz-aʔn+e-j
 truck A2(ABS)=crush -IRRD -INVD.I
 'I don't want the truck to knock you down.'
 {aand/353}

- b. ʔika:wanuxüʔk ʔiyaknaxej
 ʔi= ka:=wa:nʔ-u =xü=k
 A3(ERG)=NEG=want -COMI=EV=AN
- ʔi= yak+nax-e -j
 A3(ABS)=cross -INCD-INVD.I
 'It (the dog) didn't want to cross the man.'
 {deaa/20}

The pattern for forming complement clauses shown above occurs when the governing verb is a modality verb (e.g. wa:nʔ 'want,' jat 'be able,' ʔut 'like, wish'), a perception verb (e.g. motow 'hear,' ʔe:p 'see,' pa:t 'find, discover,' winüʔpa:t 'remember'), or a manipulative verb (e.g. tzak 'send,' machiʔt 'stop', tun 'make').

When the complement functions as subject of the matrix verb, the same dependent pattern is attested.

- (140) ʔoya ʔipitzümi yaʔmej
 ø= ʔoya ʔi= pitzüm-i yaʔmej
 B3(ABS)=good A3(ABS)=exit -COMD like this
 'It is good that it came out like this.' {lm2/352}

The verbs nüm 'say, tell' and koʔtzow 'ask' take object complements that are identical to main independent clauses. The complement verb marks the ergative argument with a proclitic from Set A and the absolutive argument with a proclitic from Set B. The aspectual markers of independent clauses are -pa or -pe for incomplete, -u or -w for complete and -am for irrealis (see CH. 3, §3.1).

- (141) a. tantükawak tanümaʔxüw ʔiyakʔo:kayuxüʔk ʔikumpa:ne
 tan= tükaw =ak ta= nüm -aʔx -ü -w
 A1 (PSR)=father=AN B1 (ABS)=tell-APPL1-INV-COMI
 ʔi= yak+ʔo:k-ay -u =xü=k ʔi= kumpa:ne
 A3 (ERG)=kill -APPL1-COMI=EV=AN A3 (PSR)=friend
 'My father_i told me that he_j (another person)
 killed his_j friend.'
- b. nümü taniʔa:ma:xantunüp
 nüm-ü ta= ni- ʔaw+ma:xan+tun-ü -pa
 say-IMPR B1 (ABS)=REFLX-cross oneself -INV-INCI.I
 'Say that I am crossing myself.' {rs2/2}

The verbs nüm 'say, tell' and koʔtzow 'ask' are also used to introduce direct quotes. In this type of formation, the event that is being reported (the direct quote) functions as the object complement of the verb. Direct quotes have all the properties of independent sentences since they can appear in any mood or aspect. They are also separated from the governing verb by a pause. The following are some examples:

- (142) a. tanümaypek ti: mintunam
 tan= nüm -ay -pe =k
 A1 (ERG)=tell-APPL1-INCI.T=AN

 ti: min= tun-am
 what A2 (ERG)=do -IRRI
 'I tell them, "What are you going to do?"'
 {id3/433}
- b. mixka:nüme? tajotpüküp
 mix= ka:=nüm -a? -e
 C2 (ERG)=NEG=tell-APPL1-INCD

 ta= jot- pük -ü -pa
 B1 (ABS)=belly-hurt-INV-INCI.I
 'You should have told him, "My belly hurts."''
 {id3/441}
- c. tanümaype tanjayko nüxü wep
 tan= nüm -ay -pe tan= jayko
 A1 (ERG)=tell-APPL1-INCI.T A1 (PSR)=older_sister

 nüx-ü wew+pi
 go -IMPR there
 'I told my sister, "Go over there!"' {rspf2/415}
- d. tanko?tzowayuk tantükawa:te?k kri:sto yake?ka
 ya?ajna?k tu:jü

 tan ko?tzow-ay -u =k tan+tükawa:tek
 A1 (ERG)=ask -APPL1-COMI=AN Our Lord

 kri:sto yak+ke:k?-a ya?aj-nak tu:j
 Christ take_away-IMPR this -DIM rain
 'I asked Our Lord Christ, "Take away this little
 rain."' {rs1/16}
- e. tanüme?xük ?imajaw ?iyaj tanpa:tu ya?aj kaya?n
 ta= nüm -a? -i =xü=k ?i= majaw
 C3 (ERG)=tell-APPL1-COMD=EV=AN A3 (PSR)=woman

 ?iyaj tan= pa:t-u ya?aj kay+an
 here A1 (ERG)=find-COMI this food
 'He told his wife, "I found this food."' {rs4/78}

Notes

¹ The canonical subject of agentive verbs is a participant that performs, effects, instigates and controls events. The canonical subject of non-agentive verbs is a participant that is affected by the event (Mithun 1991, Dixon 1994, *inter alia*).

² I use the term monotransitive to refer to transitive verbs with only two arguments. In contrast the term ditransitive is used to refer to transitive verbs with three arguments.

³ I have examined possessive phrases within a corpus of narratives containing 2,047 clauses. In the examination of order of PSR and PSM within possessive phrases, I only took into consideration structures with a third-person PSR and a third-person PSM (203 tokens) because the first and second person PSR is almost never expressed by an overt pronoun.

The third-person PSR appeared as a nominal in 46% (94 tokens) of the possessive phrases. The other 54% (109 tokens) of the possessive phrases didn't have an overt possessor. Table A shows the frequencies of the two orders within the 94 possessive phrases that contained a PSR.

Table A. Possessive Phrases with an Overt PSR

PSR-PSM	75	<u>80%</u>
PSM-PSR	19	20%
<u>Total</u>	94	100%

Thus, for possessive constructions, the order PSR-PSM is considered basic since it is four times more common than the PSM-PSR order.

⁴ The development of a subordinator from an adposition has been documented for many other languages (Genetti 1991).

⁵ Verbs following the interrogative pronouns jumü 'where' and na?kx+mü 'when' exhibit the same person and aspect markers as the verbs of dependent clauses (see CH. 3).

⁶ The type of AUX+V2 construction found in Olutec is also attested in the two branches of Mixe-Zoquean languages (Mixean and Zoquean), and in the Tzeltalan and Kanjobalan

groups of the Mayan family. Two descriptions of the Zoquean auxiliary construction are Himes (1997) for Soteapan Zoque, and Johnson (2000) for Chimalapa Zoque. The processes of grammaticalization and the morphosyntax of Mayan auxiliaries have been amply studied by Aissen (1984, 1994) and Haviland (1991, 1993) for Tzotzil, and by Zavala (1993), for Kanjobalan and other groups.

CHAPTER III

ERGATIVITY AND INVERSION

0. Introduction

This chapter describes the Olutec system for encoding core arguments on the verb. Olutec is an ergative language with three sets of person proclitics (Set A, B, C.) Set B functions as absolutive in independent clauses, Set C functions as ergative in dependent clauses, and Set A functions as ergative in independent clauses and absolutive in dependent clauses (see §3.1.) Languages with this type of arrangement have not been reported in the cross-linguistic research on ergativity (Dixon 1979, 1994).

Olutec also exhibits a typologically exceptional inverse system. In this language inverse morphology is sensitive to the relative ranking of verbal arguments on the following two hierarchies: 1) semantic argument hierarchy (agent>theme> dative/benefactive/locative) and 2) saliency hierarchy (1>2>High-ranking 3rd>Low-ranking 3rd.) The Olutec inverse is unusual in that inverse marking is attested not only with canonical transitive verbs, but also with passives of ditransitives and with certain types of intransitive

verbs. For some comparison, inverse morphology in Algonquian languages, which are among the best known inverse languages, is sensitive to the ranking of syntactic arguments (Subject>Primary Object) and their alignment with the elements of a saliency hierarchy (2>1>Proximate 3rd>Obviative 3rd) (cf. Rhodes 1976, Dahlstrom 1991, Wolfart 1996 *inter alia*.) In Algonquian, inverse marking is not attested with intransitive verbs or passives of ditransitives. The main goal of this chapter is to spell out the rationale that motivates the use of inverse morphology in Ojibwa. I will show that all the semantic arguments selected by the verb, independently of their syntactic status, come into play for the purpose of coding the clause as direct or inverse. The semantic arguments can be realized as core or as non-core arguments. Three different classes of non-core arguments will be discussed: incorporated, denominalized, and semantically conflated.

In Section 1, I will sketch the main features of inverse languages and the concepts used by Algonquianists and typologists to describe such systems. An introduction to the types of inverse constructions attested in Ojibwa is given in Section 2. It will be shown that a set of intransitive verbs also allows the inverse alternation. Section 3 presents a detailed analysis of the Ojibwa person

and aspectual marking paradigms with intransitive and transitive verbs. The direct/inverse alternation with canonical transitive verbs is explained. Section 4 deals with the conditions that determine word order flexibility in transitive clauses with two overt nominals. The use of the inverse with nonagentive bivalent verbs, passives of ditransitives, and derived intransitive verbs is explained in Sections 6 and 7. In the conclusion, I summarize the contribution of these findings to the crosslinguistic study of inverse languages.

1. Inverse Languages

In a series of papers Klaiman (1989, 1992, 1993) has tried to capture the common properties of inverse languages. According to her, a language belongs to the inverse type if clauses with transitive verbs can be expressed using either the direct or the inverse construction. The direct construction occurs when the "notional subject" outranks the "notional object" in saliency or animacy, whereas the inverse construction occurs when it is the "notional object" that outranks the "notional subject" in saliency or animacy. Klaiman has suggested that there is no common formal feature that is universally used by inverse languages to encode the direct/inverse alternation; however, she has proposed four

"general properties" of the inverse language type. First, the core participants of transitive clauses are ranked on a saliency hierarchy. Second, transitive verbs are the only predicates available to participate in the direct/inverse alternation. Third, there should be a morphosyntactic device that signals whether the salient participant is the notional subject or the notional object. And fourth, the direct/inverse alternation does not entail detransitivization. Several different kinds of inverse languages can be identified.

1.1 Inverse Alignment

The term "morphological inverse" (Givón 1994b) or "inverse alignment" (Gildea 1994) has been proposed to describe those languages in which a direct/inverse alternation occurs only when a speech act participant (hereafter, SAP) is involved. DeLancey (1981a) and Payne (1993) have argued that in inverse systems the direct construction, which is the morphologically unmarked structure, reflects the most natural mapping between the normal pattern of attention flow (from the initiator of the action, i.e., actor, to the endpoint of the action, i.e., nonactor) and the most natural perspective to describe an event, i.e., the case when the "viewpoint" coincides with the initiator of the action. On the other hand, the inverse

construction, which is the morphologically marked structure, is attested when the assignment of the "viewpoint" does not coincide with the starting point of the action.

Languages such as Maasai (Payne, Hamaya, and Jacobs 1994), Carib (Gildea 1994), and Huastec (Zavala 1994b) use explicit morphological devices to convey a transitive clause as direct or inverse only in cases in which a SAP is one of the core arguments involved in the clause. The three different configurations of a transitive clause that can be attested in an inverse language, depending on whether the SAP is the actor (notional subject) or the nonactor (notional object) are shown in (1).¹ The colon in the following chart should be read as "acts on."

(1)		<u>Actor</u>		<u>Nonactor</u>
	1) <u>Direct</u>	SAP	:	3
	2) <u>Inverse</u>	3	:	SAP
	3) <u>Local</u>	SAP	:	SAP

In the direct configuration, a SAP is the actor and a 3rd person is the nonactor. In contrast, in the inverse configuration, a 3rd person is the actor and a SAP the nonactor. That is to say that, within transitive expressions, the grammars of inverse languages explicitly indicate whether the highest-ranking participant on the saliency hierarchy (SH) in (2) (see Silverstein 1976)

coincides with the highest-ranking participant on the argument hierarchy (AH) in (3).

(2) Saliency Hierarchy (SH): SAP(1/2) > 3

(3) Argument Hierarchy (AH): Actor > Nonactor

When the highest-ranking participant in the saliency hierarchy coincides with the highest-ranking participant in the argument hierarchy the construction is direct, as in (4a). The construction is inverse if the highest-ranking participant on the argument hierarchy (the actor) does not match with the highest-ranking participant on the saliency hierarchy (the SAP), as in (4b).

(4) a. Direct

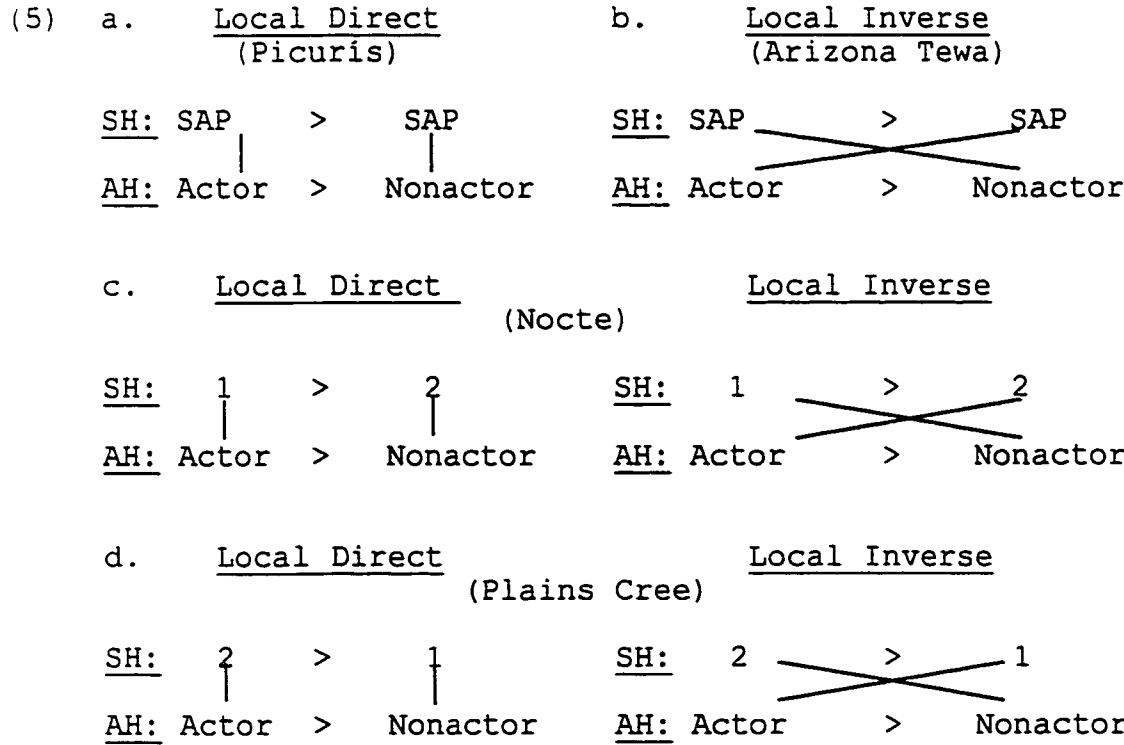
SH: SAP > 3
 |
AH: Actor > Nonactor

b. Inverse

SH: SAP > 3
 |
AH: Actor > Nonactor

The third configuration in (1) results when both the actor and the nonactor are SAP's. Algonquianists (e.g. Hockett 1966) refer to this configuration as "local". Inverse languages either treat both 1:2 and 2:1 configurations as a different subsystem [e.g. Carib (Gildea 1994)] that is itself neither inverse nor direct, or they treat both 1:2 (1st person acting on 2nd person) and 2:1 (2nd person acting on 1st person) configurations like the

other configurations (i.e., these configurations follow the direct or the inverse pattern.) Languages that assimilate local configurations to the system of non-local configurations show the following possibilities: a) both 1:2 and 2:1 are treated as direct [e.g. Picuris (Klaiman 1993)]; b) both 1:2 and 2:1 are treated as inverse [e.g. Arizona Tewa (Klaiman 1993)]; c) 1:2 is treated as direct and 2:1 as inverse [e.g. Nocte (DeLancey 1981a)]; or d) 1:2 is treated as inverse and 2:1 as direct [e.g. Plains Cree (Dahlstrom 1991)].



1.2 Inverse Voice

Algonquian (Rhodes 1976, Dahlstrom 1991, Wolfart 1996) and Tanoan languages (Klaiman 1992, 1993) use the direct/inverse morphological alternation not only in transitive clauses that include a SAP but also in transitive clauses with two 3rd person participants. In addition, there are languages such as Kutenai (an isolate) (Dryer 1991a, 1992a, 1994), and Koyukon (Athabaskan) (Thompson 1989) in which the direct/inverse alternation is only attested when both participants are 3rd person, i.e., there is no direct/inverse alternation in the cases schematized in (1). In languages that show the direct/inverse alternation in transitive clauses with two 3rd person participants, the direct construction occurs when the 3rd person actor outranks the 3rd person nonactor in "animacy" (human>animal>inanimate) or topicality (more topical>less topical), as in (6a). In contrast, the inverse construction occurs when the 3rd person nonactor is more salient or topical than the 3rd person actor, as in (6b). In (6), the bare 3 represents the highest-ranking 3rd person participant and 3' represents the lowest ranked 3rd person participant in saliency.²

- (6) a. Direct
- | | | | |
|------------|-------|---|----------|
| <u>SH:</u> | 3 | > | 3' |
| | | | |
| <u>AH:</u> | Actor | > | Nonactor |
- b. Inverse
- | | | |
|-------|---|----------|
| 3 | > | 3' |
| | | |
| Actor | > | Nonactor |

The term "inverse voice" [Thompson (1994), Givón (1994b)] has been proposed to account for cases in which the direct/inverse alternation occurs when both participants of a transitive clause are 3rd person, i.e., when there is no SAP involved.

2. Some Unexpected Features in the Olutec Inverse System

Olutec has three major classes of non-monovalent verbs. These can be identified by a variety of characteristics, including the number and type of syntactic and semantic arguments, and the possibility of occurring in certain types of voice alternations. Two of these verb classes are bivalent (i.e., they select for two participants) and another set is trivalent (i.e., it selects for three participants.) A preliminary description showing the main features of the different non-monovalent verb classes is given in Table 4.

TABLE 4. Three Classes of Olutec Non-Monovalent Verbs

<u>Criteria</u>	1. Num. of Syntactic Arguments	2. Num. and Type of Semantic Arguments	3. Pronominal Marking	4. Passive Reflexive/ Reciprocal Allowed
<u>Verb Classes</u>				
I. <u>Bivalent</u> <u>Agentive</u> <u>tze:k</u> 'scold'	2	2 Actor, Nonactor	ERG, ABS	YES
II. <u>Trivalent</u> <u>mo:yʔ</u> 'give'	3	3 Actor, Theme, Recipient	ERG, ABS	YES
III. <u>Bivalent</u> <u>Nonagentive</u> <u>ʔit</u> 'exist'	2	2 Theme, Experiencer or Location	ABS, ABS	NO

Bivalent and trivalent verbs can participate in two different constructions. One of the constructions is expressed as direct and the other as inverse. As an example consider the agentive bivalent verb tze:k in (7).

(7) a. Direct: 1:3

tantze:küxu jaʔ
 tan= tze:k-küx-u jaʔ
 A1(ERG)=scold-3PL-COMI 3AN
 'I scolded them.'

b. Inverse: 3:1

tatze:küxüwaʔ
 ta= tze:k-küx-ü -w =jaʔ
 B1(ABS)=scold-3PL-INV-COMI=3AN
 'They scolded me.'

Note that in the direct construction the verb stem is preceded by a 1st person proclitic referring to the actor and is followed by two suffixes: a plural marker referring to the 3rd person nonactor and a completive aspect marker, -u. The 3rd person plural marker on the verb is a morphosyntactic indication of the core status of the nonactor. On the other hand, in the inverse construction the verb is preceded by a 1st person proclitic referring to the nonactor and is followed by three suffixes: a plural marker referring to the 3rd person actor, an inverse marker -ü, and a completive aspect marker -w. The enclitic =(j)aʔ occurs optionally when one of the core participants of the clause is 3rd person (nonactor in (5a) and actor in (5b)).

The trivalent verb mo:yʔ 'give something to someone' selects for three core arguments. The first participant is the actor. The two nonactor participants will be referred to by the semantic labels theme and recipient. The verb mo:yʔ occurs in the direct construction in (8a) and (9a). In both (8a) and (9a), a 1st person proclitic referring to the actor precedes the verb stem. The plural marker -küx cross-references the theme in (8a), and the recipient in (9a). The presence of the plural marker referring to the theme (8a) and the recipient (9a) confirms the core status of the two nonactors of ditransitives. The inverse construction with the trivalent verb mo:yʔ is illustrated in (8b) and (9b). In

(8b) and (9b) the verb stem is preceded by a 1st person marker referring to the recipient. The plural marker signals the theme in (8b) and the actor in (9b). The enclitic =(a)k following the verb appears when one of the core arguments of the clause has an animate referent. This enclitic occurs optionally and can be attached to one or more than one of the constituents of the clause, as will be discussed below.

(8) a. Direct: 1:3:3

tanmoykükük mesko kawa:yu le:ncho
 tan= mo:yʔ-kük-u =k metzko kawa:yu le:ncho
 A1(ERG)=give-3PL-COMI=AN two horse Lencho
 'I gave two horses to Lencho.'

b. Inverse: 3:3:1

tamoyküküwak mesko kawa:yu le:ncho
 ta= mo:yʔ-kük-ü -w =ak metzko kawa:yu
 B1(ABS)=give-3PL-INV-COMI=AN two horse

 le:ncho
 Lencho
 'Lencho gave me two horses.'

(9) a. Direct: 1:3:3

tanmoykükük tuʔk ʔi:tzümü tanʔajchitüʔk
 tan= mo:yʔ-kük-u =k tuk ʔi:tzüm
 A1(ERG)=give -3PL-COMI=AN one pig

 tan= ʔajchi -tük
 A1(PSR)=brother-PL
 'I gave a pig to my brothers.'

b. Inverse: 3:3:1

tamoyküküwak tuʔk ʔi:tzümü tanʔajchitüʔk
 ta= mo:yʔ-küx-ü -w =ak tuk ʔi:tzüm
 B1 (ABS)=give -3PL-INV-COMI=AN one pig

tan= ʔajchi -tük
 A1 (PSR)=brother-PL
 'My brothers gave me a pig.'

Both agentive bivalent and trivalent verbs can be passivized and can occur in reflexive and reciprocal constructions.

Nonagentive bivalent verbs do not share these two features.

The third set of non-monovalent verbs comprises a group of bivalent verbs that always occurs in the inverse construction when the second argument selected by the verb (benefactive/location/experiencer) is treated as a core argument. Verb stems of this last set are monovalent when occurring in the direct construction. In the direct, only the first semantic argument is treated as a core argument, whereas the second argument, when expressed, is overtly marked as syntactically oblique by a postposition. In contrast to the bivalent and trivalent verbs introduced above, neither of the two semantic arguments selected by the third set of bivalent verbs is an actor. This set of verbs cannot be passivized and cannot occur in reflexive or reciprocal constructions. I will use the term theme-location verbs to refer to this third set of bivalent verbs whose argument structure includes two nonactor participants. I use

the term theme-location because, in the canonical cases, the first argument is a semantic theme and the second argument is explicitly coded as a location.³

The two types of constructions with the third set of verbs are illustrated in (10). The verb in the direct construction in (10a) is monovalent. The verb is preceded by a 1st person marker referring to the theme and is followed by an oblique locative nominal suffixed by the postposition -pi. In contrast, the verb stem in (10b) is bivalent and the construction is expressed as inverse. In (10b) the person marker preceding the verb stem refers to the location whereas the plural marker refers to the theme.

(10) a. Direct: 1:3

taʔitpa tü:yampi
 ta= ʔit -pa tü:yan -pi
 B1 (ABS)=exist-INCI.I hammock-LOC
 'I am on the hammock.'

b. Inverse: 3:1

taʔitküküw yoxetumpaʔtük
 ta= ʔit -kük-ü -w yox+e+tun+pa+ʔ-tük
 B1 (ABS)=exist-3PL-INV-COMI worker -PL
 'I had workers.' (Lit. 'Workers existed on me.')

{reb275}

In addition to syntactically bivalent and trivalent verbs, there is a fourth set of verbs that follow the inverse pattern despite being syntactically monovalent (i.e., formally intransitive.) The verb jo:m 'sweat' in

(11b) belongs to this fourth set. The ill-formed construction in (11a) shows that this type of verb cannot follow the direct pattern.

(11) a. Direct

* ta= jo:m -pa
 B1 (ABS)=sweat-INCI.I
 (Intended reading: 'I am sweating.')

b. Inverse

tajo:müp
 ta= jo:m -ü -pa
 B1 (ABS)=sweat-INV-INCI.I
 'I am sweating.'

Tsunoda (1981, 1985) has proposed a cline of two-place predicates most likely to be encoded as transitive verbs in languages of the world. All bivalent and trivalent verbs of the first and second types, i.e., the ones that follow the pattern illustrated in (7) to (9), belong to the first four semantic types within Tsunoda's cline of transitive verbs. The four first types of verbs that tend to occur with a transitive case frame in Tsunoda's cline are:

- 1) direct effect on theme (kill, break, bend, hit, shoot, kick, eat);
- 2) perception (see, hear, find, listen, look);
- 3) pursuit (search, wait, await);
- 4) knowledge (know, understand, remember, forget.)

The set of verbs that follow the patterns illustrated in (10) and (11) corresponds to the fifth and sixth verb types on Tsunoda's cline, i.e., two-place verbs that are less likely to occur using a transitive case frame:

- 5) feeling (like, be afraid, be sick, be cold, feel itchy, be angry, feel hot, be happy, suffer pain);
- 6) relationship (have, lack, possess.)

In the crosslinguistic definition of inverse languages [Klaiman (1992, 1993), Thompson (1994), Givón (1994b), DeLancey (1981a)] and in the definition of particular cases such as Algonquian languages and many others, two complementary variables are always involved. First, the alternation direct/inverse is claimed to only occur with transitive verbs (monotransitives or ditransitives.) Second, the thematic structure of those verbs always requires an actor and one or two nonactors, depending on whether the verb is monotransitive or ditransitive.⁴ Thus, the presence of the direct/inverse alternation with the first two sets of Olutec verbs (all of them monotransitive or ditransitive verbs) follows the already attested tendencies found in other languages. However, the phenomenon of theme-location bivalent verbs, such as ?it 'exist at' in (10b), and syntactically intransitive verbs, such as jo:m 'sweat' in

(11b), occurring in the inverse pattern has not, to my knowledge, been reported in the literature. In Olutec, clauses with nonagentive bivalent verbs, passives of ditransitive verbs, and applicatives of nonagentive verbs, are all intransitive verbs that participate in the inverse alternation. The presence of inverse morphology with this set of verbs requires an explanation. Inverse constructions with these verbs are of special interest for understanding the role of syntactic versus semantic arguments in inverse languages.

I will argue that all the Olutec verbs that can manifest the inverse pattern are semantically multivalent, i.e., they select for two or three semantic participants. The three main types of multivalent verbs attested in Olutec have the following argument structure:

(12) a. Agentive Bivalent (Canonical Transitive)

Agent, Theme

b. Trivalent (Ditransitive)

Agent, Theme, Recipient/Addressee/Benefactive or Location

c. Nonagentive Bivalent (theme-location)

Theme, Location/Experiencer/Benefactive

Thus, the inverse pattern is attested when the second or third participant outranks the first one in saliency. It will be shown that there are several ways in which the selected participants can be realized within the clause: either as syntactic arguments or as conflated participants that are syntactically inert. In this chapter three types of conflated (inert) arguments will be discussed: incorporated, denominalized, and cognate (§6.2.)

3. Aspectual Inflection and Person Marking

Aspect marking is sensitive to clause type. In this respect Olutec distinguishes two types of clauses: independent and dependent. The two types of clauses can be recognized because they follow different patterns for marking both person and aspect. The language has two different paradigms of aspect markers. One aspectual paradigm only occurs in independent clauses and the other only occurs in dependent clauses. In each paradigm three different aspects are distinguished: incomplete, complete and irrealis.

Olutec is a head-marking (Nichols 1986) and an ergative language (Dixon 1979, 1994). A fully inflected verb is equivalent to a sentence in English or any other Indo-European language. The core grammatical functions of S

(Subject of Intransitive), A (Subject of transitive) and PO (Primary Object) are indexed on the verb by person proclitics. The following perfectly well-formed Olutec sentences do not contain any independent pronoun or nominal expression outside the verb. The proclitic on the verb is the formal expression of one of the verb arguments. In (13a), the second-person proclitic mi- indexes the S. In (13b), the same proclitic indexes the PO. And in (13c), the second-person proclitic min- indexes the A. Note that the pattern for marking person on the verb follows an ergative/absolutive alignment since the S and PO are both marked by mi=, whereas the A is marked by min=.

- (13) a. mika:miʔnam japo:m
 mi= ka:=mi:nʔ-am japo:m
 B2 (ABS)=NEG=come -IRRI tomorrow
 ‘Aren’t you going to come tomorrow? {aandb/64}
- b. mimoyüwakü
 mi= mo:yʔ-ü -w =ak
 B2 (ABS)=give -INV-COMI=AN
 ‘Did he give you that?’ {lm3/510}
- c. minwinjützam
 min= win-jütz -am
 A2 (ERG)=EYE-scrape-IRRI
 ‘You are going to iron it.’ {rp2/561}

When nominal expressions cross-referencing the pronominal proclitics occur in the clause, they appear unmarked by case. For instance, the first person independent

pronoun ʔü:tz exhibits the same form when functioning as S (14a), as PO (14b), or as A (14c).

- (14) a. xüweʔ ʔü:s tama:pa
 xüw=jeʔ ʔü:tz ta= ma:jʔ-pa
 day=CLEFT I B1(ABS)=sleep-INCI.I
 'It is during the day that I sleep.' {rschl/635}
- b. ʔü:s taka:yakmajüwaʔk
ʔü:tz ta= ka:=yak- ma:jʔ-ü -w =ak
 I B1(ABS)=NEG=CAUS-sleep-INV-COMI=AN
 'He didn't let me sleep.' {piojo/139}
- c. ʔü:s taʔe:pwaʔ jaʔ
ʔü:tz tan= ʔe:p-w -aʔ jaʔ
 I A1(ERG)=see -COMI-PERF 3AN
 'I have seen him.' {diab2/28}

The examples in (15a-c) illustrate the unmarked noun chu:chunak 'child' cross-referencing the absolutive and ergative proclitics on the verb. The noun chu:chunak refers to the S in (15a), to the PO in (15b) and to the A in (15c).

- (15) a. chu:chunaʔk jüyta:kpa
chu:chu+nak ø= jüyta:kʔ-pa
 child B3(ABS)=play -INCI.I
 'The child is playing.' {rspfl/653}⁵
- b. jaʔk tuʔk chu:chunakü jaʔk ʔitzüʔ yaktijünüw
 jaʔ=k tuk chu:chu+nak jaʔ=k ʔi= tzüʔ
 DEF=AN one child DEF=AN A3(PSR)=mother
 ø= yak+tij-nü -ü -w
 B3(ABS)=abandon-already-INV-COMI
 'His mother already abandoned that child.'
 {rschl/73}
- c. ʔikepnüpak ʔiwekanaʔk chu:chunaʔk
 ʔi= kep -nü -pe =ak
 A3(ERG)=look_for-already-INCI.T=AN

ʔi= weka-nak chu:chu+nak
 A3(PSR)=frog-DIM child
 'The child is looking for his little frog.'
 {id2/48}

Possession is indicated on the possessed noun, (16a). The nominal expression referring to the possessor, if it occurs at all, is not marked by case (16b).

- (16) a. tamüʔku
 tan= müʔku
 A1(PSR)=brother
 'my brother' {rs8/69}
- b. tukanaʔaʔw ʔinasküʔ
 tuka -naʔw ʔi= natzküʔ
 turtle-AUGM A3(PSR)=neck
 'the turtle's neck' {aand/222}

3.1 Person Marking and Aspectual Marking in Independent Clauses

The distribution of the aspect markers in independent and dependent clauses is outlined in Table 5. In the paradigm for independent clauses two incomplete markers are selected according to the transitivity of the verb. Transitive verbs select -pe whereas intransitive verbs select -pa. The conditions for selecting one of the two forms of irrealis markers on each paradigm will be discussed below (§3.3).

TABLE 5: Aspect Markers for Independent and Dependent Clauses

<u>Type of Clause:</u>	<u>Independent</u>	<u>Dependent</u>
<u>Aspect</u>		
<u>Incompletive</u>	<u>-pa</u> (Intr.) <u>-pe</u> (Tr.)	<u>-i/-e</u>
<u>Completive</u>	<u>-u</u> ~ <u>-w</u>	<u>-i</u>
<u>Irrealis</u>	<u>-am</u> (Direct) <u>-an...pa</u> (Inverse)	<u>-a?n</u> (Direct) <u>-a?ne</u> (Inverse)

The aspect markers in independent clauses are: the incompletive for intransitives -pa 'INCI.I,' (17a); the incompletive for transitives -pe 'INCI.T,' (17b); the completive -u (and its allomorph -w) 'COMI,' (17c, d);⁶ the two irrealis markers -an...-pa and -am 'IRRI,' (17e, f).⁷

- (17) a. takaypako ?ü:s
 ta= kay-pa =koj ?ü:tz
 B1 (ABS)=eat-INCI.I=just I
 'I just eat' {vg/736}
- b. pu:ro jaytzu? tzu?chi tankaype
 pu:ro jaytzu? tzu?tz+i tan= kay-pe
 only deer meat A1 (ERG)=eat-INCI.T
 'I eat only deer meat.' {olu28/150}
- c. jaykako?ke tü?sajü tankayumpoka?k
 jaykak+ko?ke tü?tz-?aj tan= kay-u =mpok=ak
 sea bass dry -NMZR A1 (ERG)=eat-COMI=also=AN
 'I also ate dry sea bass.' {viaj3/160}

- d. nüknüwak ?ina:xmü
 ø= nükn-nü -w =ak ?i= na:x-mü
 B3(ABS)=go -already-COMI=AN A3(PSR)=land-LOC
 'He already went to his town.' {olu9/57}
- e. tankaya:mak ?ikaya?n
 tan= kay-am =ak ?i= kay+an
 A1(ERG)=eat-IRRI=AN A3(PSR)=food
 'I am going to eat his food.' {aand/217}
- f. ja:yajtük taka:?e:panüpa?
 ja:- ya? -tük ta= ka=?e:p-anüpa =ja?
 other-this-PL B1(ABS)=NEG=see -INV+IRRI=3AN
 'These other ones are not going to see me.'
 {diab2/77}

Olutec core arguments are inferred from the morphology that marks person, plurality, and inversion on the verb. As mentioned earlier, the language has three different sets of person proclitics that I will refer to as Set A, Set B and Set C. Their distribution in independent and dependent clauses is sketched in Table 6.

TABLE 6. The Three Sets of Person Proclitics (Ergative Alignment)

<u>Type of Clause:</u>	<u>Independent</u>	<u>Dependent</u>
<u>Function</u>		
<u>Ergative</u>	A	C
<u>Absolutive</u>	B	A

In independent clauses the verb can be preceded either by a form from Set A, or by a form from Set B. The members of Set A function as ergative markers, signaling the A ('actor') of transitive clauses which include a 3rd person PO (Primary

Object, i.e., theme in monotransitives, and recipient, addressee, benefactive, or possessor of theme in ditransitives (cf. Dryer 1986)), as in (18c).

(18) A = Ergative

- a. jaytzu? tzu?chi tankaype
 jaytzu? tzu?tz+i tan= kay-pe
 deer meat A1 (ERG)=eat-INCI.T
 'I eat deer meat.' {TR/131}
- b. minjuyu mimpiyu tzu?china?k
min= juy-u min= piyu tzu?tz+i-nak
 A2 (ERG)=buy-COMI A2 (PSR)=chicken meat -DIM
 'You bought your chicken, and meat.' {deaa/165}
- c. pün ?ijuyu mina:xü:tekü
 pün ?i= juy-u min= na:x-ü:tek
 who A3 (ERG)=buy-COMI A2 (PSR)=land-PL.SAP
 'Who bought your pieces of land?' {vg3/386}

The Set A paradigm with the transitive verb pux 'cut down' is shown in (19). The singular and plural proclitics are identical. Plurality with 1st and 2nd person is indicated with the suffix -(V):t 'plural for speech act participants' (PL.SAP), which follows the aspect marker. The suffix -ütz, which follows -(V):t, is used to mark 1st person exclusive (i.e., I and he/she/they but not you.)⁸ Finally, the suffix -küx,⁹ which precedes the aspect marker, is optionally used to convey plurality of 3rd person core participants. The enclitic =(a)k, glossed as AN ('animate'), follows the predicate or other constituents of the clause

when there is a 3rd person animate functioning as a core argument.

- (19) Set A. Ergative in independent clauses
Absolutive in dependent clauses (cf.
§3.2).¹⁰

pux 'cut down' -pe INCI.T (incompletive for transitive)

1SG	<u>tan=pux-pe</u>	'I am cutting it'
2SG	<u>min=pux-pe</u>	'You are cutting it'
3SG	<u>?i=pux-pe=k</u>	'S/he is cutting it'
1PLINCL	<u>tan=pux-pe-:t</u>	'We all are cutting it'
1PLEXCL	<u>tan=pux-pe-:t-ütz</u>	'We (he or they and I) are cutting it'
2PL	<u>min=pux-pe-:t</u>	'You all are cutting it'
3PL	<u>?i=pux-küx-pe=k</u>	'They are cutting it'
		'S/he is cutting them'

The following examples illustrate independent clauses with plural actors:

- (20) a. First-person Plural Inclusive

tankomame:t xükü
tan= kom -am -e:t xük
 Al(ERG)=plant-IRRI-PL.SAP beans
 'We are going to plant beans.' {deaa/281}

- b. First-person Plural Exclusive

tanto:ku:tü?s mü?ki
tan= to:k-u -:t -ütz mü:k?+i
 Al(ERG)=sell-COMI-PL.SAP-EXCL tamal
 'We (she and I) sold tamales.' {rp3/893}

c. Second-person Plural

ti: miwampe:t
 ti: min= wa:n?-pe -:t
 what A2(ERG)=want -INCI.T-PL.SAP
 'What do you all want?' {id3/259}

d. Third-person Plural (with -kūx)

ʔiyakʔo:kūxuk tuʔk pa:kaʔx
ʔi= yak- ʔo:k-kūx-u =k tuk pa:kax
 A3(ERG)=CAUS-die -PL3-COMI=AN one cow
 'They killed a cow.' {vg/719}

e. Third-person Plural (without -kūx)

jeʔxūk ʔasultūk ʔikeptayu
 jeʔ =xū=k ʔasul -tūk ʔi= kep -ta:yʔ-u
 that=EV=AN police-PL A3(ERG)=look_for-ITER -COMI
 'The policemen were looking for him.' {id3/324}

Set A may also mark the possessor of nouns, as in (21a-c).¹¹

(21) Set A = Possessor

- a. tanʔawtzoʔpe tantūkʔawku
 tan= ʔawtzoʔ-pe tan= tūk+ʔaw+kuy
 A1(ERG)=close -INCI.T A1(PSR)=entrance
 'I close my entrance.' {aand/99}
- b. minto:ku mintzapuyiʔn
 min= to:k-u min= tzapuyin
 A2(ERG)=sell-COMI A2(PSR)=green_onion
 'Did you sell your green onions?' {aandc/124}
- c. ʔimü:minpek ʔikayaʔn
ʔi= mü:+mi:nʔ-pe =k ʔi= kay+an
 A3(ERG)=bring -INCI.T=AN A3(PSR)=food
 'He is bringing his food.' {aand/273}

The Set A paradigm with the noun tük 'house' is shown in (22). Note that unlike verbs that take plural markers for first and second person, -(V):t, and third person, -kük, nouns bear only plural markers cross-referencing first and second person, -(V):tek. The plurality of a third-person possessor cannot be explicitly marked on the noun.

(22) Set A. Possessor of Nouns

1SG	<u>tan=tük</u>	'my house'
2SG	<u>min=tük</u>	'your house'
3SG	<u>?i=tük=ak</u>	'his/her house'
1PLINCL	<u>tan=tük-ü:tek</u>	'our house'
1PLEXCL	<u>tan=tük-ü:tek-ütz</u>	'our (his, their and mine) house'
2PL	<u>min=tük-ü:tek</u>	'your (PL) house'
3PL	<u>?i=tük=ak</u>	'their house'

The following examples include nouns possessed by plural possessors (PSR's):

(23) a. First-person Plural Inclusive PSR

?oyamento ka:tzo:pa ya?aj tantumina:te?k
 ?oyamento ø= ka:=tzow-pa ya?aj
 now B3 (ABS)=NEG=cost-INCI.I this

tan= tumin-a:tek
 A1 (PSR)=money-PL.SAP
 'Our money doesn't have any value now.' {vg3/408}

b. First-person Plural Exclusive PSR

tükxneje:tü?s tana:xmü:tekü?s
 tan= nüx-nü -i -e:t -ütz
 A1 (ABS)=go -already-COMD-PL.SAP-EXCL

tan= na:x-mü -:tek -ütz
 A1 (PSR)=land-LOC-PL.SAP-EXCL
 'We already went to our towns.' {olu28/875}

c. Second-person Plural PSR

ta mintojwospe:t minkü?ü:tekü
 ta min= toj- wotz-pe -:t
 COND A2 (ERG)=INSTR-pull-INCI.T-PL.SAP

min= kü? -ü:tek
 A2 (PSR)=hand-PL.SAP
 'Because if you all pull it with your hands.'
 {olu28/735}

d. Third-person Plural PSR

?imü:poykūxnūwak ?i?awo?k
 ?i= mü:- po:y? -kūx-nū -w =ak
 A3 (ERG)=ASSOC1-escape-PL3-already-COMI=AN

?i= ?awok
 A3 (PSR)=offspring
 'They already escaped with their sons.'
 {rschl/102}

In independent clauses, the members of Set B mark the absolutive: the single argument of monovalent predicates and the PO of transitive predicates. The monovalent predicate can be a noun (24), an adjective (25), or a verb (26).

- (24) a. ta?a:nima ?ü:s
ta= ?a:nima ?ü:tz
 B1 (ABS)=dead_person I
 'I am a dead person.' {olu6/164}

- b. teʔej peʔk mi:s mitükaw
 teʔej pek mi:tz mi= tükaw
 now truly you B2(ABS)=father
 'Now, you are really a father.' {lm3/605}
- c. pero ka:kuy jamaj
 pero ø= ka:=kuy jamaj
 but B3(ABS)=NEG=wood that
 'That is not wood.' {idl/229}
- (25) a. porke tachu:chu seme
 porke ta= chu:chu seme
 because B1(ABS)=small very
 'Because I am very small' {koya/24}
- b. seme michikxpaʔk mi:sü
 seme mi= chikxpak mi:tz
 very B2(ABS)=pretty you
 'You are very pretty.' {rspf2/647}
- c. taʔnükak ʔitükü
 ø= taʔnük=ak ʔi= tük
 B3(ABS)=big =AN A3(PSR)=house
 'His house is big.' {id2/108}
- (26) a. xüwjeʔ ʔü:s tama:jpa
 xüw=jeʔ ʔü:tz ta= ma:jʔ-pa
 day=CLEFT I B1(ABS)=sleep-INCI.I
 'It is during the day that I sleep.' {rschl/635}
- b. miju:ni:pakoj
mi= ju:n+ni:yʔ-pa =koj
 B2(ABS)=sit -INCI.I=just
 'You are just sitting.' {rp3/504}
- c. ya:xpaxüʔk ʔita:tatükü
 ø= ya:xʔ-pa =xü=k ʔi= ta:ta -tük
 B3(ABS)=shout-INCI.I=EV=AN A3(PSR)=grandmother-PL
 'His grandmothers were screaming.' {aandc/24}

The theme of monotransitive independent clauses is marked by a Set B proclitic when the actor is 3rd person, as shown in (27).

- (27) a. tani:motowüpak tanʔawok
ta= ni:+motow-ü -pa =k tan= ʔawok
 B1 (ABS)=obey -INV-INCI.I=AN A1 (PSR)=offspring
 'My children obey me.' {mil/13}
- b. miʔe:panüpak minta:tatüʔk
mi= ʔe:p-an -ü -pa =k
 B2 (ABS)=see -IRRI-INV-INCI.I=AN

 min= ta:ta -tük
 A2 (PSR)=grandson-PL
 'Your grandsons are going to take care of you.'
 {aand/330}
- c. ʔa:wixünüpxük ʔimajawü
ø= ʔa:wix-nü -ü -pa =xü=k
 B3 (ABS)=wait -already-INV-INCI.I=EV=AN

 ʔi= majaw
 A3 (PSR)=woman
 'His wife is already waiting for him.' {rs8/71}

The examples in (28) illustrate the use of Set B to signal PO of ditransitives. The verb mo:yʔ in (28a) is a non-derived ditransitive. The verbs nüm+aʔx 'tell someone something' (28b), and tzuk+aʔx 'cut something for someone' (28c), are derived ditransitives, formed by the applicative -aʔx on a monotransitive root.

- (28) a. tamoyuwak tanta:ta tanlugaruna?k
ta= mo:y?-ü -w =ak tan= ta:ta
 B1 (ABS)=give -INV-COMI=AN A1 (PSR)=grandson

 tan= lugar-?unak
 A1 (PSR)=place-DIM
 'My grandson gave me my little place (where I live.)' {aand/300}
- b. minüma?xüwxü?k mintzü?
mi= nüm -a?x -ü -w =xü=k min= tzü?
 B2 (ABS)=tell-APPL1-INV-COMI=EV=AN A2 (PSR)=mother
 'Your mother told you that.' {deaa/6}
- c. ?ijüpü tzuka?xüw je?k mu:xi
 ?i= jüp ø= tzuk-a?x -ü -w je? =k
 A3 (PSR)=nose B3 (ABS)=cut-APPL1-INV-COMI that=AN

 mu:xi
 bird
 'That bird ate her nose.' {rsch2/327}

The complete Set B paradigm with the monovalent verb ka? 'go down, descend' is given in (29). For all persons, absolutive markers are identical with either singular or plural reading. Observe that the 3rd person is unmarked.

(29) Set B. Absolutive in independent clauses

	<u>ka?</u> 'go down'	<u>-pa</u> 'INC.I' (incompletive for intransitive)
1SG	<u>ta=ka?</u> -pa	'I am going down'
2SG	<u>mi=ka?</u> -pa	'You are going down'
3SG	<u>ø=ka?</u> -pa	'S/he is going down'
1PLINCL	<u>ta=ka?</u> -pa-:t	'We all are going down'
1PLEXCL	<u>ta=ka?</u> -pa-:t-ütz	'We (s/he and I) are going down'
2PL	<u>mi=ka?</u> -pa-:t	'You all are going down'
3PL	<u>ø=ka?</u> - <u>küx</u> -pa	'They are going down'

Note that the same plural suffixes occurring in the Set A paradigm are found in the Set B paradigm. Examples of independent clauses that include plural intransitive subjects are shown below:

(30) a. First-person Plural Inclusive

taxejpükama:t pi:naʔk
 ta= xej+pük-am -a:t pi:nak
 B1(ABS)=rest -IRRI-PL.SAP a little
 'We are going to rest a little.' {olu28/345}

b. First-person Plural Exclusive

tükxpa:tüʔs tzuktakajem
 ta= nükx-pa -:t -ütz tzuktaka-jem
 B1(ABS)=go -INCI.I-PL.SAP-EXCL Juile -LOC
 'We (he and I) are going to go to Juile.'
 {olu28/42}

c. Second-person Plural

miyaʔtnüwa:tü
 mi= yaʔt -nü -w -a:t
 B2(ABS)=arrive here-already-COMI-PL.SAP
 'Have you all arrived here?' {olu28/867}

d. Third-person Plural (with -kux)

kaykuxamaʔk jeʔ jaykaktük
 ø= kay-kux-am =ak jeʔ jaykak-tük
 B3(ABS)=eat-PL3-IRRI=AN that people-PL
 'These people are going to eat.' {olu3/94}

e. Third-person Plural (without -kux)

nümpaxük je? ja:yajtü?k tamü:na:xü
 ø= nüm-pa =xü=k je? ja: -ya?aj-tük
 B3 (ABS)=say-INCI.I=EV=AN that another-that -PL

 tan= mü:+na:x
 A1 (PSR)=countryman
 'These others, my countrymen, are saying.'
 {viaj3/112}

3.1.1 Person, Number, Imperative Mood and Polarity

Olutec exhibits two imperative markers: -a after syllables that include middle and low vowels and -ü after syllables that include high vowels. When a clause is simultaneously affirmative and imperative, the actor of transitives and the single participant of intransitives are not overtly marked. This is the only syntactic context where verbs do not bear person proclitics within independent clauses. The presence of a second person proclitic from Set B in these contexts creates ill-formed constructions, as illustrated in (31b) and (32b).

(31) a. Intransitive

tijü mi:s
 tij -ü mi:tz
 stay-IMPR you
 'You stay!' {aandc/34}

- b. * mi= tij -ü mi:tz
 B2(ABS)=stay-IMPR you
 (Intended reading: 'You stay!')
- (32) a. kaya
 kay-a
 eat-IMPR
 'Eat!' {aandc/134}
- b. * mikaya
 mi= kay-a
 B2(ABS)=eat-IMPR
 (Intended reading: 'Eat!')

However, under the same conditions, the verb does carry the plural suffix -(V):t (plural for speech act participants) when the reference of the S is plural.

- (33) a. jem ?itü:t
 je?+mü ?it -ü -:t
 there exist-IMPR-PL.SAP
 'You all stay here!' {lm4/633}
- b. yanko witü:t ya?mej
 ya?+mü=koj wit -ü -:t ya?mej
 here =just walk-IMPR-PL.SAP like this
 'You all walk just like this here!' {rs8/145}
- c. mi?nü:t ?u:kma:pa?
 mi:n?-ü -:t ?u:k+ma:j? -pa+?
 come -IMPR-PL.SAP have dinner-NF
 'You all come to have dinner!' {olu28/118}

Similarly, transitive verbs do not bear the ergative proclitic cross-referencing the actor when the clause is simultaneously affirmative and imperative.

(34) a. Transitive

jo: wi:tü ya?mej ya?mej
 jo: wi:t -ü ya?mej ya?mej
 yes twist-IMPR like_this like_this
 'Yes, twist it like this, like this.' {aandc/496}

- b. * jo: min= wi:t -ü ya?mej ya?mej
 yes A2(ERG)=twist-IMPR like_this like_this
 (Intended reading: 'Yes, twist it like this, like this.')

(35) a. ja?k minmaktzükuna?k tzaka
 ja?k min= maktzük -?unak tzak-a
 DEF=AN A2(PSR)=younger_brother-DIM send-IMPR
 'Send your little brother!' {id3/232}

- b. * ja?k min= maktzük -?unak
 DEF=AN A2(PSR)=younger_brother-DIM

min= tzak-a
 A2(ERG)=send-IMPR
 (Intended reading: 'Send your little brother!')

Nut again, when the actor is plural, the verb does carry the suffix -(V):t.

(36) a. tu?tü:t ya?aj kuypi
 tu:t?-ü -:t ya?aj kuy -pi
 put -IMPR-PL.SAP this stick-LOC
 'You all put this one in jail!' {olul/56}

- d. ?u:kü:t minkafe?t
 ?u:k -ü -:t min= kafet
 drink-IMPR-PL.SAP A2(PSR)=coffee
 'You all drink your coffee!' {olu28/273}

e. kepa:t minkuyü:te?k
 kep -a -:t min= kuy -ü:tek
 look_for-IMPR-PL.SAP A2(PSR)=stick-PL.SAP
 'You guys look for your sticks.' {olu28/324}

Unlike affirmative imperative verbs, both intransitive and transitive imperative verbs bear the person marking cross-referencing the notional subject.

(37) Intransitive

a. ka:mikapxa mi:s
 ka:=mi= kapx-a mi:tz
 NEG=B2 (ABS)=talk-IMPR you
 'Don't talk!' {id2/11}

b. ka:miʔampiwü
 ka:=mi= ʔampiw-ü
 NEG=B2 (ABS)=chat -IMPR
 'Don't chat!' {rpl/4}

b. ka:mixiʔkü
 ka:=mi= xi:kʔ-ü
 NEG=B2 (ABS)=laugh-IMPR
 'Don't laugh! {rsch2/71}

(38) Transitive

a. ka:minümü mi:s niti:
 ka:=min= nüm-ü mi:tz ni -ti:
 NEG=A2 (ERG)=say-IMPR you NEG-thing
 'You do not say anything!' {vg3/124}

b. ka:minyukxaja
 ka:=min= yuk-xaj -a
 NEG=A2 (ERG)=UP- open_the_arms-IMPR
 'Don't stretch them (your arms)!' {rs9/5}

c. ka:mimoʔa ʔampanü:jü yaʔk naʔawunaʔk
 ka:=min= mo:yʔ-a ʔan+pa+nü: yaʔ =ak
 NEG=A2 (ERG)=give -IMPR liquor this=AN
 naʔw -ʔunak
 old man-DIM
 'Don't give liquor to this little old man!' {compa/46}

Note that in imperative clauses, the negative marker precedes the person proclitic; whereas in declarative clauses, the negative marker follows the person proclitic.

(39) a. Imperative: NEG + PERSON + V

ka:minümü
 ka:=min= nüm-ü
 NEG=A2 (ERG)=say-IMPR
 'Don't say that!' {rsch2/148}

b. Declarative: PERSON + NEG + V

tanka:nümam
 tan= ka:=nüm-am
 A1 (ERG)=NEG=say-IRRI
 'I won't say it.' {apuesta/10}

3.2 Person and Aspectual Marking in Dependent Clauses

Clauses following an auxiliary, a matrix verb,¹² or an adverb¹³ display a second marking pattern to signal aspect and person. Clauses that follow the second pattern will be referred to as dependent clauses.¹⁴ The aspect markers in dependent clauses are selected from the right column of Table 5. These are: the incomplete -i (40a) or -e (40b), the complete -i (40c), and the two irrealis -a?n (40d) and -a?n+e (40e). The form -a?n occurs in direct clauses, whereas the form -a?n+e occurs in inverse clauses.¹⁵ The selection among the two incomplete forms for dependent

clauses is triggered by the vowel of the syllable which precedes the incompletive marker. The morpheme -e occurs after syllables with non-high vowels /a/, /e/, and /o/, in contrast, the morpheme -i occurs after syllables with high vowels /i/, /ü/ or /u/. In the following examples the dependent status of the verb is triggered by the adverb jaʔmej 'in that way, like this, like that.'

(40) Aspect Markers for Dependent Clauses

- a. ʔasta teʔej jaʔme:k tatuni
 ʔasta teʔej jaʔmej =k ta= tun-i
 until now that_way=AN C3(ERG)=do -INCD
 'Up to now, he still does it that way.'
 {diab2/150}
- b. jaʔmejkoj ʔinaxe xiwitü
 jaʔmej =koj ʔi= nax -e xiwit
 that_way=just A3(ABS)=pass-INCD year
 'The years pass just like that.' {viaj2/65}
- c. jaʔmej taxnaxi xiwitüʔk
 jaʔmej tax= nax -i xiwit-tük
 that_way C1(ERG)=pass-COMD year -PL
 'I passed the years like this.' {viaj3/215}
- d. jaʔmej pek xtunanü
 jaʔmej pek tax= tun-aʔn
 that_way trully C1(ERG)=do -IRRD
 'Really, I am going to do it that way.' {deaa/232}
- e. jaʔme:k minko:chikxaʔnejü
 jaʔmej =k min= ko:+chikx-aʔn+e-j
 that_way=AN A2(ABS)=take care-IRRD -INVD.I
 'He is going take care of you in that way.'
 {mil/343}

In dependent clauses, Set C has an ergative distribution, whereas Set A has an absolutive distribution. Examples of dependent clauses where Set C signals the actor are (41) to (43). Examples (41a-c) show dependent clauses following adverbs.

(41) ADVERB + Set C = Actor of transitive

- a. tantukmün ja?mej taxkepe yoxe
 tan= tukmün ja?mej tax= kep -e
 A1(PSR)=alone in_that_way C1(ERG)=look_for-INCD
 yox+e
 work
 'Me, by myself, in that way I look for work.'
 {Tr/69}
- b. jata mixtuni mintükü
jata mix= tun-i min= tük
 right_away C2(ERG)=do -COMD A2(PSR)=house
 'You built your house right away.' {aand/594}
- c. tuwüko xiwi?t tatojyoxta?n
tuwüko xiwit ta= toj- yox+e+tun-a?n
 third year C3(ERG)=INSTR-work -IRRD
 'He is going to work (the land) for three years.'
 {lm3/457}

Dependent clauses following auxiliaries are illustrated in (42a-c).

(42) AUXILIARY + Set C = Actor of transitive

- a. ka:küxu xkome:tü?s je? ko:xo
 ka:=küx -u tax= kom -e -:t -ütz
 NEG=finish-COMI C1(ERG)=plant-INCD-PL.SAP-EXCL

je? ko:xo
 that day
 'We didn't finish planting it (the rice) that day.' {Tr/312}

- b. jatpana mixtuni
 jat -pa =na mix= tun-i
 be_able-INCI.I=still C2(ERG)=do -INCD
 'You can still do it.' {lm3/175}

- c. ?ixiyuk taxu:pxno ?e:menü:jü
 ?ix+?i:y?-u =k ta= xu:px-nü -e
 begin -COMI=AN C3(ERG)=drink-already-INCD

?e:m+e -nü:
 gristle-water
 'He already began drinking gristle soup.'
 {rspf2/495}

Dependent clauses following matrix verbs are illustrated in (43a-c).

(43) MATRIX + Set C = Actor of transitive

- a. tamwa?nam pi:sku taxkaya?n
 tan= wa:n?-am pi:tzku tax= kay-a?n
 A1(ERG)=want -IRRI orange C1(ERG)=eat-IRRD
 'I_i want (i) to eat oranges.' {Tr/12}
- b. ?ü:s ta?e:pam jumej mixto:ka?n
 ?ü:tz tan= ?e:p-am jumej mix= to:k-a?n
 I A1(ERG)=see-IRRI how C2(ERG)=sell-IRRD
 'I will see how you are going to sell it.'
 {lm1/22}

- c. jaʔk seme ʔutüp tato:küxi pawxane-tük
 jaʔ=k seme ø= ʔut -ü -pa
 3AN=AN very B3(ABS)=like-INV-INCI.I
- ta= to:k-küx-i pawxane-tük
 C3(ERG)=sell-PL3-INCD Zapotec-PL
 'The Zapotec (women)_i really like (i) to sell
 (dried fish.)' {viaj3/151}

The entire paradigm of person markers signaling the transitive actor in dependent clauses with 3rd person PO is shown in (44).

(44) Set C. Ergative in dependent clauses

1SG	<u>tax=</u>	1PLINCL	<u>tax= -(V):t</u>
		1PLEXCL	<u>tax= -(V):t-ütz</u>
2SG	<u>mix=</u>	2PL	<u>mix= -(V):t</u>
3SG	<u>ta=</u>	3PL	<u>ta= (-küx)</u>

Note that the same plural markers attested with Set A and Set B also appear with Set C. The following are examples of the plural forms of Set C.

(45) a. First-person Plural Inclusive

jenko taxyaktijane:t
 jeʔ+mü=koj tax= yak- tij -aʔn -e:t
 there =just C1(ERG)=CAUS-stay-IRR-PL.SAP
 'We are going to leave him there.' {deaa/260}

b. First-person Plural Exclusive

ʔoyu xʔe:pe:tüʔs
 ʔoy-u tax= ʔe:p-e -:t -ütz
 go -COMI C1(ERG)=see -INCD-PL.SAP-EXCL
 'We (he and I) went to see him.' {vg/263}

c. Second-person Plural

naʔkxej mixkaye:t tuʔk piyunaʔk
 naʔkxej mix= kay-e -:t tuk piyu -nak
 when C2(ERG)=eat-INCD-PL.SAP one chicken-DIM
 'When you all eat chicken.' {deaa/153}

d. Third-person Plural (with -küx)

jaʔk tu:tuʔk desde xa:patu:keʔ tani:wi:xküxi
 jaʔ=k tu:tuk desde xa:patu =k =jeʔ
 DEF=AN turkey since Saturday=AN=CLEFT

ta= ni:+wix-küx-i
 C3(ERG)=pluck -PL3-COMD
 'As for that turkey, since Saturday they finished plucking it.'

e. Third-person Plural (without -küx)

yaʔmextikak ʔinü:nü tatu:ti
 yaʔmextik=ak ʔi= nü:n ta= tu:tʔ-i
 this_size=AN A3(PSR)=tortilla C3(ERG)=put -INCD
 'They made their tortillas as big as this.'
 {rp3/631}

In dependent clauses, the single argument of intransitives and the PO of transitives (theme of monotransitives, and recipient, benefactive, addressee, or possessor of the theme of ditransitives) are marked by the same set of proclitics that signals the actor in independent transitive clauses, i.e., Set A (19). Thus, Set A has an ergative distribution in independent clauses and an

absolutive distribution in dependent clauses. Dependent clauses with monovalent verbs are illustrated in (46) to (48). In (46a-c) the dependent clause follows an adverb.

(46) ADVERB + Set A = Single argument of monovalent

- a. jaʔmejampoʔk tanükxi ʔü:sü
jaʔmej =mpok tan= nüx-i ʔü:tz
 in that way=also A1 (ABS)=go -INCD I
 'In that way I also go.' {Ve/226}
- b. jumü mintükju:niyi
jumü min= tük+ju:n+ni:yʔ-i
 where A2 (ABS)=live -INCD
 'Where do you live?' {aand/564}
- c. yamak ʔiyaʔti jeʔk mixtununaʔk
yaʔ+mü=ak ʔi= yaʔt -i jeʔ=k mixtun-ʔunak
 here =AN A3 (ABS)=arrive-COMD that=AN cat -DIM
 'The little cat arrived here.' {aand/4}

Monovalent verbs following auxiliaries are illustrated in (47).

(47) AUXILIARY + Set A = "S" of monovalent verb

- a. kuxumpoʔk tankaye
kux -u =mpok tan= kay-e
 finish-COMI=also A1 (ABS)=eat-INCD
 'I also finished eating.' {aand/75}
- b. ka:jajatpa minyoxtuni
ka:=ja= jat -pa min= yox+tun-i
 NEG=MIRAT=be_able-INCI.I A2 (ABS)=work-INCD
 'You cannot work anymore.' {lm3/467}

- c. $\text{ʔixi:pak ʔinümküxi}$
 $\text{ʔix+ʔi:yʔ-pa =k ʔi= nüm-küx-i}$
 begin -INCI.I=AN A3 (ABS)=say-PL3-INCD
 'They began to say.' {olu3/21}

In (48), the monovalent verbs occur after matrix verbs.

(48) MATRIX + Set A = "S" of monovalent verb

- a. $\text{ʔika:wanuk tanmiʔni}$
 $\text{ʔi= ka:=wa:nʔ-u=k tan= mi:nʔ-i}$
 A3 (ERG)=NEG=want -COMI=AN A1 (ABS)=come -INCD
 'They didn't want that I come back.' {Tr/164}
- b. $\text{taxnümayu minka:jamiʔnaʔn}$
 tax= nüm -ay -u
 C1 (LOCAL)=tell-APPL1-COMI

 $\text{min= ka:=ja= mi:nʔ-aʔn}$
 A2 (ABS)=NEG=MIRAT=come -IRRD
 'I told you not to come.' {olu4/216}
- c. $\text{ʔika:nimachiʔtu ʔiʔu:ki}$
 $\text{ʔi= ka:=ni= machiʔt-u ʔi= ʔu:k -i}$
 A3 (ERG)=NEG=NEG=quit -COMI A3 (ABS)=drink-INCD
 'He_i didn't stop (_i) drinking.' {aandb/280}

Among the different types of monovalent predicates (verbal or non-verbal), intransitive verbs are the only ones that take a Set A proclitic when following adverbs, auxiliaries, or matrix verbs. That is, nouns and adjectives in predicate function never take a Set A proclitic under these conditions. Instead, they take Set B proclitics, as illustrated in (49) and (50).

(49) ADVERB + Set B = "S" of non-verbal predicates

- a. ?ü:se? seme tako?pakpakpa?k
 ?ü:tz=je? seme ta= ko?pak-pak+pak
 I =CLEFT very B1(ABS)=head- hard
 'I am very hard-headed.' {aand2/9}
- b. seme michikxpa?k mi:s
seme mi= chikxpak mi:tz
 very B2(ABS)=pretty you
 'You are very pretty.' {rspf2/647}
- c. mü:t pün we:na?kxej ko?paktunpa?
 mü:t pün wew+na?kxej ø= ko?pak+tun+pa+?
 and who then B3(ABS)=boss
 'And who was the boss then?' {vg2/38}

(50) MATRIX + Set B = "S" of non-verbal predicates

- a. tannümaype taka:ti ?ü:sü
tan= nüm -ay -pe ta= ka:=ti ?ü:tz
 A1(ERG)=tell-APPL1-INCI.T B1(ABS)=NEG=thing I
 'I am telling him that I am not a thing.'
 {id3/263}
- b. miwini:pe chu ?antun mi?oyaj
min= wini:y?-pe chu ?antun mi= ?oyaj
 A2(ERG)=know -INCI.T uncle Anthony B2(ABS)=good
 'You know uncle Antonio that you are a good
 person.' {rspf2/801}
- c. tanka:?ixkapu:tusak püna:ke?
tan= ka:=?ix+kap-u -:t -ütz=ak
 A1(ERG)=NEG=know -COMI-PL.SAP-EXCL=AN

ø= pün=ak=je?
 B3(ABS)=who=AN=that
 'We didn't know who he was.' {rp3/712}

Set A marking the PO of bivalent and trivalent dependent verbs is illustrated in (51) to (53). The verbs in

(a) are bivalent, whereas the ones in (b) are trivalent. The multivalent dependent verbs follow adverbs in (51), auxiliaries in (52), and matrix verbs in (53).

(51) ADVERB + Set A = PO

- a. naʔkxek ʔipa:tiy jama:k rrewe:lde
 naʔkxej=k ʔi= pa:t-I -y jamaj=k
 when=AN A3(ABS)=find-COMD-INVD.C that=AN
 rrewe:lde
 rebel
 'When those rebels found him [...]' {olul/35}
- b. jeʔ ʔu:rak minümaʔxaʔnej
 jeʔ ʔu:ra=k min= nüm -aʔx -aʔn -e -j
 that hour=AN A2(ABS)=tell-APPL1-IRRD-INCD-INVD.I
 'That is when she is going to tell you that.'
 {compa/111}

(52) AUXILIARY + Set A = PO

- a. pün miʔnamaʔ tanküʔpüktzowej
 pün mi:nʔ-am =jaʔ tan= küʔpüktzow-e -j
 who come-IRRI=3AN A1(ABS)=help -INCD-INVD.I
 'Who will come to help me?' {Ca/234}
- b. porke ʔoyu ʔimoʔyej ʔikoʔpan
 porke ʔoy-u ʔi= mo:yʔ-e -j
 because go-COMI A3(ABS)=give -INCD-INVD.I
 ʔi= koʔpan
 A3(PSR)=hat
 'Because he went to give him his hat.' {rspfl/358}

(53) MATRIX + Set A = PO

- a. ʔika:wanuk tanyakwimpitiy
 ʔi= ka:=wa:nʔ-u =k tan=yak+wimpit-i -y
 A3(ERG)=NEG=want-COMI=AN A1(ABS)=bring-COMD-INVD.C
 'They did not want to bring me back.' {Tr/150}

b. mü:t ?ika:jatuk ?ijo?na?xej
 mü:t ?i= ka:=jat -u =k
 and A3(ERG)=NEG=be_able-COMI=AN

?i= jo?n -a?x -e -j
 A3(ABS)=steal-APPL1-INCD-INVD.I
 'And he_i couldn't steal (his_j son_k).' {rschl/518}

To sum up, Olutec distinguishes two types of clauses: independent vs. dependent. The two types of clauses can be identified by their dissimilar patterns for marking aspect and person. Olutec follows an ergative alignment in both independent and dependent clauses. It uses three sets of person markers to signal the core arguments of the clause. In independent clauses Set A exhibits an ergative distribution whereas Set B exhibits an absolutive distribution. In dependent clauses Set C exhibits an ergative distribution and Set A exhibits an absolutive distribution. An ergative marker (Set A in independent clauses and Set C in dependent clauses) marks the actor when the PO is a 3rd person. An absolutive marker (Set B in independent clauses and Set A in dependent clauses) signals the PO under circumstances that will be explained in section 4.

3.2.1 Dependent Marking and Mood

Clauses following a matrix verb in the imperative mood show a different pattern for coding person and a special marker that indicates subordination. The pattern shown by affirmative and negative imperative clauses was explained in section 3.1.1. The verb of affirmative imperatives does not carry a person proclitic cross-referencing the notional subject, whereas the verb in negative imperatives does bear a person proclitic for second person. Plural subjects are overtly marked on the imperative verb by the suffix -(V):t. When an imperative verb is followed by another verb, the verb in second position (V2) takes the suffix -ta (IMPRD 'imperative for dependent') and appears also unmarked by person.

- (54) a. nükxü kepta
 nükx-ü kep -ta
 go -IMPR look_for-IMPRD
 'Go to look for it!' {lm2/209}
- b. mü:t nükxü moyta je?kü majaw
 mü:t nükx-ü mo:y?-ta je? =k majaw
 and go -IMPR give -IMPRD that=AN woman
 'And go to give it to that woman!' {olu6/184}

When the coreferential subject is plural, both verbs carry the suffix -(V):t.

- (55) nüxü:t puĵta:t miwintoĵkü:kü
 nüx-ü -:t puĵ -ta -:t
 go -IMPR-PL.SAP wash-IMPRD-PL.SAP
- min= wintoĵ+kü:k
 A2 (PSR)=face
 'You all go to wash your faces!' {olu28/542}

In addition to the imperative, Olutec exhibits the optative mood. Optative mood is commonly used to convey obligation, or a desired or potential state of affairs. The verbs of clauses in the optative mood do not carry any person proclitic. The optative mood is marked by the optative morpheme ta, which precedes the verb complex. In this type of clause, the verb may take either the incompletive (56), or the irrealis (57), aspect marker for dependent clauses. Examples of intransitive verbs following the optative marker are (56a-c) and (57a). Examples of transitive verbs following the optative marker are (56d) and (57b-d).

(56) Optative plus V in the Incompletive

- a. ja:jeʔk chu:chunakü ja:jaʔk ʔiya:xaype ʔiweka ta
 pitzümixü
- jaʔ=jeʔ =k chu:chu-nak jaʔ=ak ʔi= ya:xʔ
 DEF=that=AN small -DIM DEF=AN A3(ERG)=shout
- ay -pe ʔi= weka ta pitzüm-i =xü
 -APPL1-INCI.T A3(PSR)=frog OPT exit -INCD=EV
 'That little boy is calling his little frog for it
 to come out.' {rschl/581}

- b. naʔkkek ʔiküxan ʔiyakʔixnaxno ta miʔnampok yam
 naʔkxej=k ʔi= küx -aʔn ʔi= yak-ʔix+nax
 when =AN A3(ABS)=finish-IRRD A3(ABS)=CAUS-read
 -nü -e ta mi:nʔ-i =ʔampok yaʔ+ mü
 -already-INCD OPT come -INCD=also here
 'After he finishes studying, he should come here.'
 {rs8/102}
- c. ta ka:kapxe ta tuʔmi küxno yaʔaj ya:kʔawü
 ta ka:=kapx -e ta tuʔmi küx -nü -e
 OPT NEG=speak-INCD OPT once finish-already-INCD
 yaʔaj ya:k- ʔaw
 this native-mouth
 '(She doesn't want to speak Olutec.) So she won't
 speak it and so Olutec may be finished for good.'
 {aandb/141}
- d. tankoʔtzowayuʔaʔ jaʔ tantükawa:teʔk kri:sto ta
 yakeʔke kujumiʔk
 tan= koʔtzow-ay -u -ʔaʔ jaʔ
 A1(ERG)=request-APPL1-COMI-PERF DEF
 tan= tükaw -a:tek kri:sto
 A1(PSR)=father-PL.SAP Christ
 ta yak- ke:kʔ-e kujum+ik
 OPT CAUS-move -INCD sickness
 'I have asked our Lord Christ to remove the
 sickness.' {rs1/73}

(57) Optative plus V in the Irrealis

- a. mixkepam mi:s para jama:k ʔinü:nüwoʔk minta:tawoʔk
 takayaʔn
 mix= kep -am mi:tz para jamaj=k ʔi=
 C2(ERG)=look_for-IRRI you for that =AN A3(PSR)=
 nü:nü -wok min= ta:ta -wok ta kay-aʔn
 tortilla-DIM A2(PSR)=grandson-DIM OPT eat-IRRD
 'You are going to look for it (money) for your
 grandsons' little tortillas so they may eat.'
 {lm3/601}

- b. ta moʔanak tati: minü:xünaʔk
ta mo:yʔ-aʔn =ak ta- ti: min= nü:xü -nak
 OPT give -IRRD=AN any-thing A2(PSR)=daughter-DIM
 'May your little daughter give her something.'
 {aand/197}
- c. mü:tak tajützaʔn paʔanjem
 mü:t=ak ta jütz -aʔn paʔn -jem
 and =AN OPT grind-IRRD grinding_stone-LOC
 'He may grind it (the corn) on the grinding
 stone.' {mi2/8}
- d. ta ka:tuʔtaʔanak taʔnak ka:na ni taʔna ʔasukaʔt
ta ka:=tu:tʔ-aʔ -aʔn =ak taʔna=k ka:na ni
 OPT NEG=put -APPL1-IRRD=AN a_lot=AN salt NEG

 taʔna ʔasukat
 a_lot sugar
 'She shouldn't add a lot of salt or a lot of
 sugar.' {mi2/17}

The examples in (56) and (57) showed that the S of intransitives and the A of transitives may not be expressed by the person proclitics in the optative mood. The example in (58a) shows that the PO of transitive clauses is also not marked on the verb. The presence of the person marker cross-referencing the PO in (58b) produces an ill-formed structure.

- (58) a. je:p ta tzuʔtzij je:je
 jeʔ+pi ta tzuʔtz-i -j je:je
 there OPT bite -INCD-INVD.I mosquito
 'May the mosquito bite him.' {mil/452}
- b. * jeʔ+pi ta ʔi= tzuʔtz-i -j je:je
 there OPT A3(ABS)=bite -INCD-INVD.I mosquito
 'May the mosquito bite him.'

4. Four Different Patterns: Direct, Inverse, Local Direct,
and Local Inverse

Only one of the core participants selected by a multivalent verb can be explicitly signaled in the slot for person proclitics preceding the verbal root. This participant may be either the actor or the nonactor. The choice as to which participant is overtly marked depends on the rank that the participant occupies in a saliency hierarchy. This hierarchy comprises three subparts: a person hierarchy (59a), an animacy hierarchy (59b), and a topicality hierarchy (59c). The saliency hierarchy stipulates that speech act participants (SAP) outrank 3rd person participants; and within the 3rd person subset, the most prominent 3rd person participant in terms of animacy and topicality (high-salience 3rd person) outranks the least prominent nominal (low-salience 3rd person.)

(59)

Olutec Saliency Hierarchy

- | | | |
|----|-----------------------------|-------------------|
| a. | SAP (1>2) > 3 | <u>Person</u> |
| b. | human > animate > inanimate | <u>Animacy</u> |
| c. | topical > less topical | <u>Topicality</u> |

I will use the term proximate (PROX) to refer to the highest-ranking 3rd person on the animacy or topicality hierarchies, i.e., the 3rd person that patterns with the SAP on the person hierarchy. I will use the term obviative (OBV) to refer to the lowest-ranking 3rd person on the animacy or topicality hierarchies, i.e., the 3rd person that does not pattern with the SAP on the person sub-hierarchy. The terminology is borrowed from Algonquian studies (e.g. Hockett 1966, Rhodes 1976, Dahlstrom 1991, Wolfart 1996) and from Dryer (1994). In Algonquian languages and Kutenai both types of nominals are morphologically distinct. The morphologically unmarked proximate is the nominal that is the "center of interest" (Dahlstrom 1991) or more topical element in the clause. The proximate is usually the participant from whose point of view events are described, the focus of speaker's empathy (Mithun 1999: 76). There can be only one proximate nominal per clause. On the other hand, the morphologically marked obviative is a less topical core nominal of the clause. More than one obviative can occur in the clause. In Ojibwe none of the nominals occurring with two and three-place predicates are morphologically marked as obviatives or proximates, but as we will see below, lower-ranked nominals (obviatives) have morphosyntactic properties that are not shared by higher-ranked nominals (proximates.)¹⁶

In Olutec choice of the direct, the inverse, and the local patterns schematized in (1) depends on whether the highest-ranking participant in saliency aligns with the actor or with the nonactor of the transitive clause. Table 7 shows the distribution of the direct and inverse patterns for a transitive verb. The combinations marked as DIR are direct, whereas the ones marked as INV are inverse. The way these patterns are morphosyntactically expressed is explained below.

TABLE 7. Direct and Inverse Patterns in Transitive Clauses

<u>Nonactor</u>		1	2	3
<u>Actor</u>	1	INV (RFLX)	LOCAL.DIR	DIR
	2	LOCAL.INV	INV (RFLX)	DIR
	3	INV	INV	INV (RFLX) / DIR (3:3') / INV (3':3)

4.1 The Direct and the Inverse Patterns

4.1.1 Direct

In Olutec, the actor of transitive clauses is marked as ergative (Set A (19) or Set C (44)) only when it is a SAP or a highly salient 3rd person who acts on a less salient 3rd

a highly salient 3rd person who acts on a less salient 3rd person. This first pattern will be referred to as "direct" and is schematized in (60).

(60) Direct Pattern (Transitive Clause)

<u>SH:</u>	<u>SAP or 3</u>	>	3	or	3'
<u>AH:</u>	<u>Actor</u>	>	Nonactor		

The scheme in (60) indicates that a transitive construction is conveyed as direct when the highest-ranking participant on the saliency hierarchy (SAP > high-salience 3rd > low-salience 3rd) coincides with the highest-ranking participant on the argument hierarchy (provisionally: actor > nonactor.) In the canonical transitive constructions the nonactor is the Primary Object (PO).

The direct form of the verb is the only option available for coding a transitive expression when the actor outranks the nonactor on the person hierarchy (59a) or on the animacy hierarchy (59b). The direct pattern in independent and dependent clauses under these conditions was illustrated in (18) and (41) to (43) above.

The following are additional cases of direct transitive clauses where two 3rd person participants are involved. The two 3rd person participants of (61) to (63) are asymmetrical on the animacy hierarchy with the highest-ranking

participant playing the role of actor. In (61), a human acts on an animal.

- (61) A: PROX (human) PO: OBV (animal)
 ʔimachiʔtuk xuʔni
 ʔi= machiʔt-u =k xuʔni
 A3(ERG)=release-COM=AN dog
 '(When he arrived to that place) he (PROX)
 released the dogs (OBV.)' {Ve/72}

In (62), the actor is also human and the PO is inanimate.

- (62) A: PROX (human) PO: OBV (inanimate)
 jeʔtükak ʔitunküxpe ʔu:piʔk
 jeʔtük=ak ʔi= tun-küx-pe ʔu:pik
 they =AN A3(ERG)=do -PL3-INC.T chili sauce
 'They (PROX) prepare chili sauce (OBV.)' {Co/53}

In (63), the actor refers to an animal and the PO is inanimate.

- (63) A: PROX (animal) PO: OBV (inanimate)
 jaʔkeʔ ʔi:tzümüjaytzüʔ ʔitompe tükawku
 jaʔ=k=jeʔ ʔi:tzümü-jaytzüʔ ʔi= ton -pe
 DEF=AN=CLEFT pig-AUGM_FEM A3(ERG)=push-INCI.T
 tük+ʔaw+ku
 door
 'The big female pig is pushing the door.'
 {aandb/235}

There are cases in the corpus that apparently contradict the principle that in direct constructions the highest-ranking participant on the animacy hierarchy

(human>animal>inanimate) always aligns with the actor of transitive clauses. In (64), a direct construction, an animal acts on a human. However, this inconsistency may be related to the fact that such examples come from narratives where animals are portrayed as mythical entities that possess properties usually associated with humans, i.e., these animals usually talk and request things from their interlocutors, helping them to accomplish their goals. No direct construction has been found in the corpus in which an animal lacking mythical features acts on a human.

(64) A: PROX (animal) PO: OBV (human)

ʔitzümamak jama:k yoʔjwa
 ʔi= tzüm -am =ak jamaj=k yoʔjwa
 A3(ERG)=carry_on_the_back-IRRI=AN that=AN man
 'It (the buzzard) was going to carry that man on
 his back (and give him a ride to visit his wife.)'
 {olu5/69}

If the two participants of a transitive expression are ranked equivalently in person and animacy, the verb can follow either the direct or the inverse pattern. The verb follows the direct pattern if the actor outranks the nonactor in topicality (see the hierarchy in (59c).) In the examples (65a-c), both participants are equally ranked in person and animacy, but they are asymmetrically ranked in topicality. The actor of these examples is a more topical nominal (more salient in this particular segment of

discourse) than the nonactor, and the construction follows a direct pattern. (See Appendix B for some measures of topicality within constructions that include two 3rd person participants equally ranked in person and animacy but asymmetrically ranked in topicality.)

(65) a. A: PROX (human) PO: OBV (human)

dejem takepik ja:tu?k komo ma?tzu
 de+jem ta= kep -i =k ja:+tuk komo
 after_that C3(ERG)=look_for-COMD=AN another as_a
 ma?tzu
 lover

'(There was a man whose wife died.) After that he (PROX) looked for another (woman) (OBV) to have as a lover.' {olu5/12}

b. A: PROX (animal) PO: OBV (animal)

je? tzana?y, je?k ?ikaype? tzu:kü
 je? tzanay, je? =k ?i= kay-pe -? tzu:k
 that snake, that=AN A3(ERG)=eat-INC.T-NMZR mouse
 '[...] that snake, the one (PROX) that eats rats (OBV.)' {Co/17}

c. A: PROX (inanimate) PO: OBV (inanimate)

jama? tüpxina?k ?iko:wosta:kpe
 jama? tüpx+i-nak ?i= ko:+wotz-ta:k? -pe
 that rope -DIM A3(ERG)=pull -DIR:down-INCI.T
 'That little rope (PROX) is pulling it (the coffee plant (OBV)) down.' {olu28/745}

In direct constructions, singular 3rd person PO's are not overtly marked on the verb. But if the PO refers to a 3rd person plural, the verb can optionally bear the plural

suffix -kūx. Since only 3rd person core arguments can be overtly marked by the plural suffix on the verb, this indicates that the second participant in direct constructions is a core argument.

- (66) tanʔapu ʔiʔe:pkükuk yoxtumpaʔtüʔk ʔoyamej
 tan= ʔapu ʔi= ʔe:p-kūx-u =k
 A1 (PSR)=grandfather A3 (ERG)=see -PL3-COM=AN
- yox+tun+pa+ʔ-tük ʔoyamej
 worker -PL properly
 'My grandfather took care of the workers
 properly.' {Re/292}

4.1.2 Inverse

When the nonactor (i.e. the PO) is a SAP or a high-salience 3rd person and the actor is a low-salience 3rd person, the nonactor of a transitive verb is marked by an absolutive person marker (Set B (29)) in independent clauses and Set A (19) in dependent clauses.) This second pattern will be referred to as "inverse" and is schematized in (67).

- (67) Inverse Pattern (Transitive Clause)

SH: SAP or 3 > 3 or 3'
AH: Actor > Nonactor

The scheme in (67) indicates that a transitive construction is conveyed as inverse when there is a mismatch between the highest-ranking slot on the argument hierarchy (the actor) and the highest-ranking slot on the saliency hierarchy (SAP/high-saliency 3rd.) That is, in inverse, contrary to direct constructions, it is the nonactor that coincides with the highest-ranking element on the saliency hierarchy.

The inverse form of the verb is the only option available for coding a transitive expression when the nonactor outranks the actor on the person sub-hierarchy (59a) or on the animacy sub-hierarchy (59b). The inverse pattern in independent and dependent clauses under these conditions was illustrated in (27), (28), and (51) to (53) above.

The examples in (69) to (71) are additional cases that illustrate the inverse pattern with two 3rd person participants asymmetrically ranked on the animacy sub-hierarchy (human>animal>inanimate.) In (68), a lowest-ranking animal actor acts on a high-ranking human PO.

(69) A: OBV(animal) PO: PROX(human)

naʔkxexük takepi jeʔk yoʔjwa ʔiyaknaxaʔnej rri:o
 naʔkxej=xü=k ta= kep -i jeʔ =k yoʔjwa
 when =EV=AN C3(ERG)=look_for-COMD that=AN man

ʔi= yak+nax-aʔn -e -j rri:o
 A3(ABS)=cross -IRRD-INCD-INVD.I river
 'That is when the man_i looked for (the dog); so
 that it_j (the dog (OBV)) could take him_i (PROX)
 across the river.' {deaa/18}

In (70), an inanimate acts on a human, whereas in (71), an inanimate acts on an animal.

(70) A: OBV (inanimate) PO: PROX (human)

jaʔxük ni:tzayiyüp maktaxko tüʔkxaʔn
 jaʔ=xü=k ø= ni:- tza:y+ʔi:yʔ-ü-pa
 he =EV=AN B3(ABS)=BODY-light -INV-INC.I

maktaxko tüʔkx+an
 four candles
 'Four candles (OBV) are illuminating him (PROX),
 it is said.' {En/98}

(71) A: OBV (inanimate) PO: PROX (animal)

nü:ʔu:kiyu:jü yakʔo:küxnop
 nü:+ʔu:k+i+yu: ø= yak+ʔo:k-küx-ü -nü -pa
 thirst B3(ABS)=kill-PL3-INV-already-INCI.I
 'The thirst (OBV) is already killing them (the
 horses) (PROX.)' {ropa/230}

As stated above, an event can be equally rendered as direct or inverse when the two participants of a transitive expression are ranked the same in terms of person and animacy. In this case, the choice of forms is based on

pragmatic factors. The verb follows the inverse form if the PO outranks the actor in topicality. In (72a-c) the two 3rd person participants are ranked equally in regards to person and animacy but the PO is a more topical nominal (in this fragment of discourse) than the actor, and the construction follows an inverse pattern. (See topicality measures in Appendix B.)

(72) a. A: OBV (human) PO: PROX (human)

ʔiyaktze:ki ʔitze:kiyiyak koʔpaktumpaʔ
 ʔi= yak- tze:k-i
 A3(ABS)=PASS-scold-COMD

ʔi= tze:k+ʔi:yʔ-i-y=ak koʔpak+tun+pa+ʔ
 A3(ABS)=scold-COMD-INVD.C=AN boss
 'He (the man who was selling shit)_j was scolded.
 The mayor (of the town (OBV)) scolded him_j
 (PROX.)' {olu4/94}

b. A: OBV (animal) PO: PROX (animal)

jeʔ ʔu:rak ʔixiyik ʔiyaktzumi tu:ru ʔitzumij koya
 jeʔ ʔu:ra=k ʔix+ʔi:yʔ-i=k ʔi= yak-tzum-i
 that hour=AN begin-COMD=AN A3(ABS)=PASS-tie-INCD

tu:ru ʔi= tzum-i -j koya
 bull A3(ABS)=tie -INCD-INVD.I rabbit
 'That is when the bull_j started to be tied up. The
 rabbit (OBV) tied it_j (PROX) up.' {koya/114}

f. A: OBV (inanimate) PO: PROX (inanimate)

moʔtzo jü:nüp
 moʔtzo ø= jü:n -ü -pa
 mud B3(ABS)=swallow-INV-INCI.I
 'The mud (OBV) is swallowing it (the car (PROX).)'
 {lm2/205}

The four morphological features that distinguish inverse clauses from direct clauses are sketched in Table 8. First, inverse clauses bear a special directive marker,¹⁷ the inverse suffix: -ü for independent clauses (72c); -j for dependent incooperative clauses, (72b); and -y for dependent cooperative clauses, (72a).¹⁸ Second, unlike the direct clause, in which the ergative signals the actor, it is the absolutive that signals the nonactor in an inverse clause. Third, in inverse independent clauses the verb takes the incooperative marker for intransitives, -pa, as in (72c), instead of the incooperative marker of the direct transitive clauses, -pe, as in (65c). Fourth, both in independent and dependent clauses, a different irrealis aspectual marker is selected depending on whether the clause is direct or inverse.

TABLE 8. Features of Direct and Inverse Clauses

	<u>Direct</u>		<u>Inverse</u>	
	<u>Indep.</u>	<u>Dep.</u>	<u>Indep.</u>	<u>Dep.</u>
Inverse suffix	-	-	<u>-ü</u>	<u>-j/-y</u>
Person proclitic	A(ERG)	C(ERG)	B(ABS)	A(ABS)
Incooperative for independent	<u>-pe</u>	-	<u>-pa</u>	-
Irrealis	<u>-am</u>	<u>-an</u>	<u>-anpa</u>	<u>-a?ne</u>

4.1.3 Are Inverse Clauses Intransitive?

The second and the third features mentioned above suggest that the verb in inverse clauses is no longer transitive but rather intransitive. However, the presence of the actor with some of the features exclusively assigned to core arguments indicates that the verb has not undergone detransitivization. The actor in inverse clauses is either anaphorically recoverable or overtly signaled by a nominal, i.e., the actor is not suppressed. Nominals referring to the actor in inverse clauses are not flagged as obliques, as is the case for non-core nominals. Also, actors of inverse constructions share the same relativization strategy used by core arguments, including actors of direct constructions. The relative clauses (RC's) that modify core arguments are nominalizations. Relativized core arguments are anaphorically recovered within the RC. Compare the RC modifying the actor of a direct construction (73a), with the RC modifying the actor of an inverse construction (73b). The RC's in the following examples appear between brackets.

(73) a. RC Modifying an Actor of a Direct Construction

tukak tanto:kayu ?itumpe? chikula?t
 tuk=ak tan= to:k-ay -u
 one=AN A1(ERG)=sell-APPL1-COMI

[?i= tun -pe -? chikulat]
 A3(ERG)=make-INCI.T-NMZR chocolate
 'I sold it (a grinding stone) to one who sells
 chocolate.' {aandc/374}

b. RC Modifying an Actor of an Inverse Construction

nümpaxü?k jama?k mü:nükxüwa?
 nü-m-pa =xü=k
 say-INCI.I=EV=AN

jamaj=k [ø= mü:+nükx-ü -w -a?]
 that =AN B3(ABS)=take -INV-COMI-NMZR
 'That one who took him (to the other side) says
 [...]' {olul/120}

In contrast, the relativization strategy used by oblique participants includes a relative pronoun internal to the RC. The verb in this type of RC is finite. For instance, the oblique locative nominal in (74) is modified by a finite RC that is headed by the relative pronoun jumü.

- (74) ta?itüp tankwa:rtu jumü tanxoke
 ta= ?it -ü -pa tan= kwa:rtu
 B1(ABS)=exist-INV-INCI.I A1(PSR)=room
 [jumü tan= xok -e]
 where A1(ABS)=be laying-INCD
 'I have a room where I lay down.' {piojo/24}

Two other morphosyntactic clues that support the core argument status of actors in inverse constructions comes

from the 3rd person plural marking on the verb and the position of the animate clitic =(a)k within the clause. Inverse clauses that include a 3rd person plural actor and a higher-ranking PO, as in (75a-c), may bear a 3rd person plural marker -kūx cross-referencing the actor, even though the only proclitic on the verb refers to the nonactor. This is an additional piece of evidence that the actor of the inverse construction is a clausal core argument, since -kūx cannot not cross-reference non-core arguments.

- (75) a. jaʔmej naʔkxej ta ʔoyi tanpüküxij tantükümü
 jaʔmej naʔkxej ta ʔoy -i
 in_that_way when COND go_and_return-COMD

 tan= pük -kūx-i -j tan= tük -mü
 A1 (ABS)=grab-PL3-INCD-INVD.I A1 (PSR)=house-LOC
 'That is how they went to grab me from my house.'
 {id3/485}
- b. ka:mimpak miʔe:pküxij
 ka:=mi:nʔ-pa =k min= ʔe:p-kūx-i -j
 NEG=come -INCI.I=AN A2 (ABS)=see -PL3-INCD-INVD.I
 'They do not come to see you.' {deaa/250}
- c. jeʔtük küʔpüktzowkūxūw
 jeʔ+tük ø= küʔ+pük+tzow-kūx-ü -w
 they B3 (ABS)=help -PL3-INV-COMI
 'They helped him.' {rspf1/298}

The construction in (76b) contains the third-person plural suffix -kūx on the verb cross-referencing the comitative oblique argument. The fact that the construction is ill-

formed shows that oblique animate participants with plural reference cannot be overtly marked on the verb.

(76) a. Oblique is Plural

jem tawaʔktiʔmpoʔk mü:t jeʔtüʔk
 jeʔ+mü tan= waʔk-ti:yʔ-i =mpok mü:t jeʔ -tüʔk
 there Al(ABS)=walk-PUNCT-INCD=also with that-PL
 'I am also there working with them.' (vg/826)

- b. * jem tawaʔktiʔmpoʔk mü:t jeʔtüʔk
 jeʔ+mü tan= waʔk-ti:yʔ-küx-i =mpok
 there Al(ABS)=walk-PUNCT-PL3-INCD=also

mü:t jeʔ -tüʔk
 with that-PL

(Intendend reading: 'I am also there working with them.')

Similarly, the animate enclitic =(a)k attaches to any clausal constituent when a third-person animate core argument is involved. The enclitic may follow conjunctions, adverbs, nominal modifiers, head nouns, independent pronouns, auxiliaries or main verbs when one or more than one of the third-person core arguments is animate. The transitive examples in (77) include only one third-person animate participant. The fact that the enclitic =(a)k within these examples refers to the actor provides additional evidence that the actor of inverse clauses exhibits core status.

(77) a. Conjunction + =ak

mü:tak tamoyküxiy japoy?u:ki kajchanü:nü
 mü:t=ak tan= mo:y?-küx-i -y japoy+?u:k+i
 and =AN A1(ABS)=give -PL3-COMD-INVD.C breakfast

kajcha+nü:nü

bread

'[...] and they gave me bread for breakfast.'

{lm3/514}

b. Adverb + =ak

yamak tyakju:ni?anej

ya?+mü=ak tan= yak- ju:n+ni:y?-an+e-j
 here =AN A1(ABS)=CAUS-sit -IRRD-INVD.I

'He is going to make me sit here.' {aand/211}

c. Nominal Modifier + =ak

ta ja?k mimajaw mi?e:püpü

ta ja?k min= majaw mi= ?e:p-ü -pa
 COND DEF=AN A2(PSR)=woman B2(ABS)=see -INV-INCI.I

'If that wife of yours takes care of you.'

{lm2/57}

d. Head Noun + =ak

tantükawa:tekak tantzoyiyüpa:tü?s

tan= tükaw -a:tek =ak tan= tzoy+?i:y?-ü
 A1(PSR)=father-PL.SAP=AN A1(ABS)=cure -INV

-pa -:t -ütz

-INCI.I-PL.SAP-EXCL

'Our father (God) cures us.' {rs2/43}

e. Independent Pronoun + =ak

ja? mi:sak miyake:ka?xüp

ja? mi:t=ak mi= yak-ke:k?-a?x -ü -pa
 3AN you =AN B2(ABS)=CAUS-move-APPL1-INV-INCI.I

'He is taking it from you.' {lm3/485}

f. Auxiliary + =ak

ta mimpak tankepej
 ta mi:nʔ-pa =k tan= kep -e -j
 COND come -INCI.I=AN A1 (ABS)=look_for-INCD-INVD.I
 'If he comes to look for me.' {aandc/203}

g. Main Verb + =ak

minümaʔxüwxük mintzüʔ
 mi= nüm -aʔx -ü -w =xü=k min= tzüʔ
 B2 (ABS)=tell-APPL1-INV-COMI=EV=AN A2 (PSR)=mother
 'Your mother told you that.' {deaa/6}

In contrast, clauses whose only third-person animate participant is an oblique argument trigger a different pattern. In this type of clause, the enclitic =(a)k may be part of the adpositional phrase only, i.e., =ak cannot appear in any other position within the clause. As an illustration of this pattern consider (78a-b). Note that in both cases the animate comitative is headed by the preposition mü:t followed by =ak. Unlike (77a-g), the enclitic =ak may not be attached to any of the constituents that precede the adpositional phrase. This morphosyntactic behavior clearly separates obliques from core arguments.

- (78) a. niʔixi tajatij mü:tak jaymaʔjiʔw
 niʔixi tan= jat -i -y mü:t=ak
 that_way A1 (ABS)=happen-COMD-INVD.C with=AN
 jaymaʔjiw
 deceased
 'That happened to me and my late husband that way.' {rp3/142}

- b. ʔü:s ja:koj yam taʔitpa tantükmü mü:tak taʔunak
yoʔjwa+ʔaj

ʔü:tz jaʔ+koj yaʔ+mü ta= ʔit -pa tan=
I only here B1 (ABS)=exist-INCI.I A1 (PSR)=

tük -mü mü:t=ak tan= ʔunak yoʔjwa+ʔaj
house-LOC with=AN A1 (PSR)=offspring male
'I am only here in my house with my son.'
{aand/475}

At this point it will be useful to contrast the inverse clause with the passive clause, since the passive is an intransitive construction in which the actor cannot be overtly expressed. The Olutec passive prefix yak- reduces the verb's valence. Three pieces of evidence corroborate the intransitive status of the passive. First, the verb only takes the absolutive proclitic cross-referencing the theme of monotransitives or the recipient/addressee/benefactive of ditransitives verbs. Thus, the PO of the active corresponds to the subject of the passive.

(79) Passive with Monotransitive Verb Base

- a. taka:ʔutüp tyakʔe:pe
ta= ka:=ʔut -ü -pa tan= yak- ʔe:p-e
B1 (ABS)=NEG=like-INV-INCI.I A1 (ABS)=PASS-see -INCD
'I don't like to be observed.' {hijomez/18}
- b. jem minyaktzo:knoʔne:t
jeʔ+mü min= yak- tzo:kʔ-nü -aʔn -e:t
there A2 (ABS)=PASS-pay -already-IRR-PL.SAP
'You are already going to be paid there.'
{olu28/863}

- c. ?iyakmo:te pichi
 ?i= yak- mo:t -e pitz+I
 A3(ABS)=PASS-grind-INCD leached_corn
 'The leached corn is being ground.' {aandc/409}

(80) Passive with Ditransitive Verb Base

- a. ki:nse pe:xu tyakmo?e
 ki:nse pe:xu tan= yak- mo:y?-e
 fifteen peso A1(ABS)=PASS-give -INCD
 'I was given fifteen pesos.' {rp2/195}
- b. yampa? miyakmo?e
 yampa? min= yak- mo:y?-e
 this_much A2(ABS)=PASS-give -INCD
 'You are given this much.' {lm3/622}
- c. para ?iyakmo?anxü kaye
 para ?i= yak- mo:y?-a?n =xü kay+e
 in_order A3(ABS)=PASS-give -IRR=EV food
 '(She goes there) to be given food.' {rs3/37}

Second, in incomplete independent clauses, the verb takes the suffix -pa (for intransitive) and not -pe (for transitives.)

- (81) a. mü:t je? tyaktzakpa
 mü:t je? ta= yak- tzak-pa
 and that B1(ABS)=PASS-send-INCI.I
 'For that reason I am being sent.' {olu6/174}
- b. miyakjampakoj
 mi= yak- jan -pa =koj
 B2(ABS)=PASS-deceive-INCI.I=just
 'You are being deceived.' {pesca/229}
- c. yakaypaxüke? xu?niwo?k
 ø= yak- kay-pa =xü=k =je? xu?ni-wok
 B3(ABS)=PASS-eat-INCI.I=EV=AN=that dog -DIM
 'Those little dogs may be eaten.' {rs2/112}

Third, recall that in actives and inverses of monotransitive constructions, both the actor and the PO can trigger plural marking on the verb. In passives, in contrast, the only argument that can trigger plural marking on the verb is what in actives is coded as PO. The passive in (82) is ill-formed because the plural marker for 3rd person would refer to an actor that cannot be expressed.

- (82) * ta= yak- tzak-küx-pa
 B1 (ABS)=PASS-send-3PL-INC.I
 (Intended reading: 'I am being sent by them.')

4.1.4 Reflexives and Reciprocals are Inverse

In addition to the actor-nonactor configurations that are expected to be encoded as inverses cross-linguistically, Table 7 shows that Olutec reflexive and reciprocal constructions also follow the inverse pattern. The verb of both reflexives and reciprocals bears the prefix ni- (RFLX, RECP) and one of the inverse suffixes (-ü, -j, -y.) The only participant coded in the verb is the non-actor which is coreferent with the actor. The non-actor is marked by the absolutive proclitic. Reflexive examples are given in (83).

- (83) a. taniʔa:ma:xantunüp
 ta= ni- ʔaw+ma:xan+tun-ü -pa
 B1 (ABS)=RFLX-cross -INV-INCI.I
 'I am crossing myself.' {rs2/3}

- b. je:p miniyu:ka?nej
 je?+pi min= ni- yu:k-a?ne-j
 there A2(ABS)=RFLX-hide-IRR-INV.I
 'You are going to hide yourself there.' {ropa/184}
- c. tukana?k nitajiyüw na:xpa?tpi
 tuka -nak ø= ni- taj+?i:y?-ü -w
 turtle-DIM B3(ABS)=RFLX-bury -INV-COMI

 na:x-pa?t -pi
 soil-under-LOC
 'The little turtle buried itself under the soil.'
 {lm2/307}

The examples in (84) illustrate the inverse pattern in reciprocal constructions.

- (84) a. tanikü?pa:tanüpa:t pe?k
 ta= ni- kü?+pa:t-anüpa -:t pek
 B1(ABS)=RECP-marry -INV+IRRI-PL.SAP trully
 'Really, we are going to get married.' {rs5/13}
- b. jem ni?awjupetaja:t
 je?+mü ni- ?aw+jup+pet-a -j -a:t
 there RECP-lock -IMPR-INV.I-PL.SAP
 'Lock each other up over there!' {id3/168}
- c. mü:t nika:xküxüwak je? yo?jwatü?k
 mü:t ø= ni- ka:x-küx-ü -w =ak je?
 and B3(ABS)=RECP-comb-PL3-INV-COMI=AN that

 yo?jwa-tük
 man -PL
 'And the men combed each others hair.' {rsch2/257}

In the majority of inverse languages, reflexive and reciprocal constructions are not included in the direct/inverse alternation since these constructions are formally treated as intransitive clauses. Tanglapui, a Timor-Alor-Pankar language spoken on the island of Alor,

Indonesia (Donohue 1996) is another inverse language in which reflexive constructions follow the inverse pattern. Hypothetically, inverse languages could convey transitive reflexive and reciprocal constructions as either direct or inverse since both the actor and the nonactor align with the most salient participant of the clause. The two arguments of reflexives are equally ranked in saliency since both of them refer to the same entity. In the same way, the two coreferent arguments of reciprocals have the same saliency status. Among the two hypothetical patterns shown in (85), Olutec syntacticized the second one for all the reflexive and reciprocal constructions.

- (85) a. RFLX/RECP Direct b. RFLX/RECP Inverse
- | | |
|--|--|
| <u>SH: SAP or 3</u> > 3'

<u>AH: Actor</u> > Nonactor | <u>SH: SAP or 3</u> > 3'
<u>AH: Actor</u> > <u>Nonactor</u> |
|--|--|

4.1.5 Summary of the Olutec Inverse System

Up to this point, I have presented three main characteristics of the inverse system in Olutec: First, the presence of an inverse system coexists with an ergative/absolutive person alignment. Second, the same morphological devices express what has been termed inverse

alignment (i.e., obligatorily direct when the actor is a SAP, obligatorily inverse when the nonactor is a SAP) and what has been termed inverse voice (i.e., a verb appears optionally in the direct or the inverse form when the clause has two 3rd person core participants equally ranked on animacy but asymmetrically ranked on topicality.) The verb of the clause occurs in the direct form when the outranking participant on the saliency hierarchy aligns with the highest-ranking participant on the argument hierarchy. The verb of the clause occurs in the inverse form when the most salient participant does not coincide with the highest-ranking participant on the argument hierarchy. Third and last, the inverse construction has morphosyntactic trappings of both canonical intransitive (i.e., person marking and aspectual marking) and canonical transitive clauses (i.e., the argument structure of the verb selects actor and nonactor participants and both of them have properties of core arguments.)

4.2 Two Local Patterns: Direct and Inverse

Transitive clauses with a SAP actor and a SAP nonactor display two additional patterns that are morphologically distinct from the direct and the inverse patterns already

described. These two additional patterns will be referred to as local, following the tradition of Algonquianists. Olutec has two local configurations depending of the role of 1st and 2nd person. 1st actor acting on 2nd nonactor results in a direct construction, (86a); whereas 2nd person actor acting on 1st person nonactor results in an inverse construction, (86b).

- (86) a. Local Direct b. Local Inverse
- | | |
|---|---|
| <u>SH:</u> 1 > 2

<u>AH:</u> <u>Actor</u> > Nonactor | <u>SH:</u> 1 > 2

<u>AH:</u> Actor > <u>Nonactor</u> |
|---|---|

The verb of both local configurations, (1:2) [1st person acting on 2nd person] and (2:1) [2nd person acting on 1st person], bear the invariable proclitic tax= (the same form as the 1st person ergative for dependent clauses, i.e., 1st person from Set C). This is a clear indication that 1st person outranks 2nd person on the person hierarchy, unlike Algonquian where 2nd person outranks 1st person. The local direct construction is morphologically unmarked, whereas the local inverse construction takes the inverse suffix -(V)k after the aspect marker.¹⁹ The two local patterns in independent clauses are illustrated in (87).

(87) a. Local Direct (1:2)

taxwinü?pa:tpa
tax= winü?pa:t-pa
 Cl(LOCAL)=remember -INC.I
 'I remember you.' {olu5/157}

b. Local Inverse (2:1)

taxmü:nükxpak
tax= mü:+nükx-pa -k
 Cl(LOCAL)=take -INC.I-INV.LOCAL
 'You take me.' {rspf2 824}

The same person proclitic, tax=, appears in the two local patterns of dependent clauses. Note also that the inverse marker for local independent clauses, the suffix -Vk, is the same inverse marker found in local dependent clauses, (88b).

(88) a. Dependent Local Direct (1:2) (triggered by an adverb)

yamkoj tax?e:pe
ya?+mü=koj tax= ?e:p-e
 here =just Cl(LOCAL)=see -INCD
 'I only see you here.' {Ve/219}

b. Dependent Local Inverse (2:1) (triggered by an auxiliary)

japom mi?na?n taxpükik
 japom mi:n?-a?n tax= pük -i -k
 tomorrow come-IRR Cl(LOCAL)=grab-INCD-INV.LOCAL
 'Tomorrow you will come to pick me up.' {L1/85}

The morphological features of the local construction seem to indicate, first, that the verb has undergone detransitivization; and second, that the only core argument is 1st person. However, there are two pieces of evidence

pointing to the contrary. First, the verb bears the plural suffix for SAP cross-referencing the 2nd person in the configurations 1SG:2PL, (89a), 2PL:1SG, (89b). Second, non-oblique 2nd person independent pronouns can occur in the local construction, as in (89b). These two morphological properties indicate that the verb is still transitive and that the 2nd person is a core argument of both local direct and inverse.

(89) a. Local Direct

ʔü:sü taxʔe:pu:t
 ʔü:tz tax= ʔe:p-u -:t
 I Cl (LOCAL)=see -COM-PL.SAP
 'I saw you all.'

b. Local Inverse

mi:tza:teʔk taxʔe:pa:teʔk
 mi:tza:tek tax= ʔe:p-pa -:t -ek
 you (PL) Cl (LOCAL)=see -INC.I-PL.SAP-INV.LOCAL
 'You (pl) are watching me.'

In sum, the two local patterns present a combination of formal features that separate them from the canonical direct and inverse patterns. In some respects the two local patterns are similar to the direct pattern and in other respects they are similar to the inverse. The two local configurations, for both independent and dependent clauses, take the proclitic tax=, which is also attested in the direct configuration (1:3) for dependent clauses. Similar to

the inverse, the verb in the local configuration bears the incompletive suffix for independent intransitives -pa, unlike the verb in the direct, which bears -pe. Unlike the inverse, none of the local configurations takes the inverse suffixes (-ü, -i, -j) that occur in the non-local pattern. In addition, the local inverse configuration (2:1) does not take the 1st person absolutive (i.e., ta= of Set B or tan= of Set A) which is expected in the inverse when the nonactor outranks the actor (e.g. 3:1). The somewhat mixed morphosyntactic properties of the local signals that the conditions which trigger the direct or inverse are partly neutralized in this construction. This is expected since both the actor and the nonactor are SAP, which means that both participants rank high in the person hierarchy presented in (59a). However it is clear that there is a direct/inverse opposition within the local pattern. The direct construction occurs when a 1st person acts on a 2nd person, and the inverse construction occurs when a 2nd person acts on a 1st person.

4.3 A Person Split within the Transitive Paradigm

Olutec shows a person split in transitive combinations that include either a 3rd or 2nd person actor acting upon a 1st person plural non-actor. Inverse languages normally convey this type of configuration, in which the non-actor outranks the actor in person, using an inverse (3:1PL) or a local pattern (2:1PL). In addition to the expected constructions (inverse and local), Olutec exhibits an additional construction that includes the suffix -ʔit. It is likely that the etymological source of this suffix was the verb ʔit 'exist.' However, there is not enough evidence to prove or disprove this hypothesis. The two expected patterns for a canonical inverse language are discussed first. The construction that includes the suffix -ʔit is discussed second.

The 3:1PL configuration coded by the inverse pattern has the following formal features: 1) the first-person plural theme is signaled by the absolutive proclitic and the plural suffix -:t on the verb; 2) the verb takes an inverse suffix; and 3) the actor is not marked by a person proclitic on the verb. The suffix -ütz 'exclusive' appears when the referent of the first-person plural does not include the hearer.

(90) Inverse 3:1PL

- a. tyakʔo:kanüpa:tak yam nijampaʔ
 ta= yak- ʔo:k-an+ü+pa -:t =ak yaʔ+mü
B1(ABS)=CAUS-die -INV+IRRI-PL.SAP=AN here
 ni+jampaʔ
 all
 'He is going to kill all of us here.' {id3/223}
- b. ka: nu:nka tawopiya:tüʔs
 ka: nu:nka tan= wop-i -y -i:t -ütz
 NEG never Al(ABS)=hit-COMD-INVD.C-PL.SAP-EXCL
 '(My father) never hit us (exclusive.)' {rp2/105}
- c. tan= tükaw -a:t+tek=ak
 Al(PSR)=father-PL.SAP =AN
 tan= tzoy+ʔi:yʔ-ü -pa -:t -ütz
Al(ABS)=cure -INV-INCI.I-PL.SAP-EXCL
 'Our Lord is curing us (exclusive.)' {rs2/43}

When the actor is third person plural, the suffix -küx may appear on the verb, as in (91).

- (91) yaʔk rrikotükü taka:moyküxüpa:taʔk
 yaʔj=ak rriko-tük ta= ka:=mo:yʔ-küx-ü
 this=AN rich -PL B1(ABS)=NEG=give -PL3-INV
 -pa -:t =ak
 -INCI.I-PL.SAP=AN
 'The rich people don't give us anything.' {vg2/64}

The 2:1PL configuration coded by the inverse pattern has the following formal features: 1) the first-person plural theme is signaled by the proclitic from Set C, the plural suffix -:t, and the exclusive marker -ütz on the

verb; 2) the verb takes an inverse suffix for the local configuration 2:1; and 3) the actor is not marked on the verb.

- (92) LOCAL: 2:1PL
- mi:s taxwopu:tekü?s
 mi:tz tax= wop-u -:t -ek -ütz
 you Cl(LOCAL)=hit-COMI-PL.SAP-INV.LOCAL-EXCL
 'You hit us.'

Thus, the inverse and local patterns in (90) to (92) conform with the pattern already explained above.

The following examples show transitive verb stems suffixed by -?it, glossed as 'PL1.PO' for 'first-person plural for primary objects'. In the examples (93a-b), a 3rd person actor acts on a 1st person plural. In the examples (94a-b), a 2nd person actor acts on a 1st person plural.

- (93) Configuration 3:1PL
- a. dejem ?itzo:kitne ja?
 de+jem ?i= tzo:k?-?it -nü -i ja?
 after A3(ABS)=pay -PL1.PO-already-COMD 3AN
 'After that, he paid us.' {olu28/548}
- b. ka:yakma?jitpa jem
 ø= ka:=yak- ma:j?-?it -pa je?+mü
 B3(ABS)=NEG=CAUS-sleep-PL1.PO-INCI.I there
 '(The mosquitoes) don't let us sleep over there.'
 {piojo/143}

(94) Configuration 2:1PL

- a. ka:miko:monitü
 ka:=mi= ko:+mon-?it -ü
 NEG=B2 (ABS)=bother -PL1.PO-IMPR
 'Don't bother us!' {rschl/627}
- b. ka:miyaktzü?kiyitü
 ka:=mi= yak- tzü?k+?i:y?-?it -ü
 NEG=B2 (ABS)=CAUS-be afraid -PL1.PO-IMPR
 'Don't frighten us!' {rspf2/806}

The same pattern is also attested with ditransitive verbs.

In (95), the PO is 1st person plural whereas the A argument is 3rd person.

- (95) a. ?imoyitne:k tu?k to?ki
 ?i= mo:y?-?it -nü -i =k tuk to?k+i
 A3 (ABS)=give -PL1.PO-already-COMD=AN one mat
 'He gave us a mat.' {olu28/291}
- b. ?inüma?xitik tu?k yojwa
 ?i= nüm -a?x -?it -i =k tuk yo?jwa
 A3 (ABS)=tell-APPL1-PL1.PO-COMD=AN one man
 'A man told us that.' {olu28/498}
- c. ni?ti?k ?uxü?p maye je? ta:kayitpa tza:wi tza?e?k
 tzu?chi
- ni?tik ?uxüw -pi maye je? ø= ta:k-kay
 all afternoon-LOC TEMP that B3 (ABS)=CAUS-eat
- ?it -pa tza:wi tza:y?-ek tzu?chi
 -PL1.PO-INCI.I monkey grill -PCP meat
 'He made us eat grilled meat of monkey every
 afternoon.' {olu28/791}

When the A is 2nd person plural, the suffix -(V):t, plural for speech act participants, appears at the end of the verb cross-referencing the A argument.

- (96) mi:sa:teʔk miʔe:pitama:t
 mi:tza:tek mi= ʔe:p-ʔit -am -a:t
 you (pl) B2(ABS)=see -PL1.PO-IRRI-PL.SAP
 'You (pl) are going to take care of us.'

When the A is 3rd person plural, the suffix -kux may follow or precede the suffix -ʔit. The variation in the positions of the morphemes is illustrated in (97a-b).

- (97) a. ja:tuk fo:rma ʔitojni:nümitküxi
 ja:+tuk fo:rma ʔi= toj-ni:+nüm-ʔit -küx-i
 another way A3(ABS)=INSTR-name -PL1.PO-PL3-INCD
 'They name us in another way.' {deaa/186}
- b. jeʔ mü:nükxiʔo:küxitpa
 jeʔ ø= mü:+nükx-i -ʔo:k -küx-ʔit -pa
 that B3(ABS)=take -NMZR-DESID-PL3-PL1.PO-INCI.I
 'They want to take us along with them.' {vg/637}

The verb stems with the shape V-ʔit are formally intransitive. Two pieces of evidence support this claim. First, the verb only takes the absolutive proclitic cross-referencing the A argument. The 1st person plural PO is only indicated by the suffix -ʔit, which is not part of the paradigm of person proclitics. Second, the construction takes the incomplete aspectual suffix -pa, as in (93b), (95c) and (97b), which only intransitive verbs of independent clauses can take. Thus formally, this construction resembles an antipassive since the A is marked by the absolutive, the verb is intransitive and the PO is not signaled by a person marked on the verb. The -ʔit

construction has not been reported for any other language of the Mixe-Zoquean family.

Although the two alternate constructions that express the configurations 3:1PL and 2:1PL are dissimilar from a formal point of view, there are no obvious semantic differences between them. Both constructions appear with the same verbs, in the same syntactic environments, and are produced by all speakers as alternative ways to convey the same meaning. That is, the two constructions in (98) are alternate ways, used by all speakers, to express the meaning 'Lencho cured us'.

(98) a. -ʔit Construction

le:ncho	tzoyiyitu	jaʔ			
Lencho	∅=	tzoy+ʔi:yʔ-ʔit	-u	jaʔ	
Lencho	B3 (ABS)=cure		-PL1.OP-COMI	3AN	

b. Inverse Construction

le:ncho	tatzoyiyüwü:tüʔs				
Lencho	ta=	tzoy+ʔi:yʔ-ü	-w	-ü:t	-ütz
Lencho	B3 (ABS)=cure		-INV-COMI-PL.SAP-EXCL		

The -ʔit construction that marks the 3:1PL and 2:1PL has created a very odd split in the paradigm of person marking that is unfamiliar in other Mixe-Zoquean as well as other inverse languages. In fact, as far as I know, there is no account in the literature of this type of split in which the combination 3:1PL and 2:1PL are ruled by a rationale

that only operates within this part of the paradigm of person marking.

5. Word Order in Direct and Inverse Transitive Clauses with Two Nominals

Olutec exhibits flexible word order of 3rd person core nominals when these nominals are asymmetrically ranked on the animacy sub-hierarchy (59b), i.e., the A and the PO nominals of monotransitive verbs appear in various arrangements when one of these nominals outranks the other one in the animacy sub-hierarchy. Consequently, under these conditions, all six possible word order alternations are attested in the corpus: A-PO-V, PO-A-V, A-V-PO, PO-V-A, V-A-PO, V-PO-A.

(99) a. A-PO-V

ja:yaʔajtük jaʔk xokoʔt nüxpa takaʔsküxi
ja:-yaʔ-tük jaʔ=k xokot nüx-pa
 DEF-this-PL DEF=AN grass go-INCI.I

ta=kaʔtz-küx-i
 C3(ERG)=cut-3PL-INCD
 'These ones are going to cut the grass.' {KD/20}

b. PO-A-V

tzoyü jaʔaj ʔiwampe
 tzoy jaʔaj ʔi= wa:nʔ-pe
 medicine 3AN A3(ERG)=want -INCI.T
 'He wants medicine.' {KD/21}

c. A-V-PO

mü:tak jeʔ koya ʔipükiʔatpe tüpx+i
 mü:t=ak jeʔ koya ʔi= pük+i+ʔat-pe tüpx+i
 and=AN that rabbit A3(ERG)=carry-INCI.T rope
 'And that rabbit was carrying rope.' {KD/60}

d. PO-V-A

jeʔkok ʔimotowuk ʔikumpa:ne
 jeʔ =koj =k ʔi= motow -u =k ʔi= kumpa:ne
 that=only=AN A3(ERG)=listen-COMI=AN A3(PSR)=friend
 'His friend listened only to that.' {KD/154}

e. V-A-PO

jeʔ ʔu:raxüʔk taʔu:ki jeʔk koʔyaj jeʔanpanü:jü
 jeʔ ʔu:ra=xü=k ta= ʔu:k -i jeʔ =k koʔyaj
 that hour=EV=AN C3(ERG)=drink-COMD that=AN devil

jeʔan+pa+nü:

that liquor

'That is when the devil drank the hard-liquor.'
 {KD/II-59}

f. V-PO-A

taja:tunik pajam ka:jaw
 ta= ja:- tun-I =k pajam ka:jaw
 C3(ERG)=MIRAT-do -COMD=AN strength tiger
 'The tiger used all its might.' {KD/71}

The role of the asymmetrically ranked nominals within a transitive clause is determined by the form that the verb takes and not by the order in which the nominals appear.

Verbs in the direct form demand that the highest-ranking nominal on the animacy hierarchy refers to the A, and that the lowest ranking nominal on the same hierarchy refers to the PO. The opposite is true when the verb carries the inverse form. The direct clauses in (100a-b) illustrate two of the potential word order patterns when a human acts on an inanimate. The only possibility for encoding the reverse situation, i.e., the inanimate referent being the A and the human referent being the PO, is by using the inverse form of the verb (100c).

(100)a. Direct 3:3'
A-PO-V

xi:muk naʔka ʔiwopu
xi:mu=k naʔka ʔi= wop-u
Simon=AN board A3(ERG)=hit-COMI

- i. 'Simon hit the board.'
- ii. * 'The board hit Simon.'

PO-A-V

b. naʔka xi:mu ʔiwopu
naʔka xi:mu ʔi= wop-u
board Simon A3(ERG)=hit-COMI

- i. 'Simon hit the board.'
- ii. * 'The board hit Simon.'

c. Inverse 3':3
PO-A-V

xi:mu naʔka wopüwak
xi:mu naʔka ø= wop-ü -w =ak
Simon board B3(ABS)=hit-INV-COMI=AN

- i. 'The board hit Simon.'
- ii. * 'Simon hit the board.'

When two nominals, one referring to a human and the other to an animal, are both participants in a direct clause, independently of the word order variation the highest-ranking nominal (the human) is always interpreted as the A; and the lowest ranking nominal (the animal) as the PO, as in (101):

(101) a. Direct 3:3'
PO-V-A

xuʔnik ʔitzuʔtzuk xi:mu
 xuʔni=k ʔi= tzuʔtz-u =k xi:mu
 dog =AN A3(ERG)=bite -COMI=AN Simon
 i. 'Simon bit the dog.'
 ii. * 'The dog bit Simon.'

b. A-V-PO

xi:muk ʔitzuʔtzuk xuʔni
 xi:mu=k ʔi= tzuʔtz-u =k xuʔni
 Simon=AN A3(ERG)=bite -COMI=AN dog
 i. 'Simon bit the dog.'
 ii. * 'The dog bit Simon.'

The opposite distribution of semantic roles is conveyed by the inverse clause, as in (102).

(102) Inverse 3':3
PO-V-A

xi:mu tzuʔtzüwak xuʔni
 xi:mu ø= tzuʔtz-ü -w =ak xuʔni
 Simon B3(ABS)=bite -INV-COMI=AN dog
 i. 'The dog bit Simon.'
 ii. * 'Simon bit the dog.'

Word order constraints occur when both participants are equally ranked on the animacy sub-hierarchy (59b). In this situation, only three word orders are attested in direct constructions: A-PO-V, A-V-PO, V-A-PO. Note that in the three alternate orders the A precedes the PO.

(103) a. A-PO-V

jeʔk jeʔ ʔita:tatüʔk ʔimü:ma:jʔpe
jeʔ=k jeʔ ʔi= ta:ta -tük
 3AN=AN that A3(PSR)=grandson-PL

ʔi=mü:-ma:jʔ-pe
 A3(ERG)=ASSOC-sleep-INCI.T
 'She sleeps with her grandsons.' {lm3/147}

b. A-V-PO

jeʔk majawü ʔikepuk jeʔk yoʔjwa
jeʔ=k majaw ʔi= kep -u =k
 that=AN woman A3(ERG)=look_for-COMI=AN

jeʔ =k yoʔjwa
 that=AN man
 'That woman looked for that man.' {rschl/188}

c. V-A-PO

jeʔ ʔu:ra tapüki che:pa jeʔk chu:chunaʔk
 jeʔ ʔu:ra ta= pük -i che:pa
 that hour C3(ERG)=grab-COMD Chepa

jeʔ =k chu:chu-nak
 that=AN child -DIM
 'At that time Chepa grabbed the little child.'
 {lm2/244}

The three word order patterns attested in inverse constructions that include two nominals equally ranked in the animacy hierarchy are: PO-A-V, PO-V-A and V-PO-A. Note that the PO precedes the A in the three patterns.

(104) a. PO-A-V

yaʔak müʔku tantükawa:teʔk kri:sto ʔiko:chikxanüpa
tuʔawjem

yaʔ =ak müʔku tan= tükaw -a:tek kri:sto
this=AN brother A1(PSR)=father-PL.SAP Christ

ʔi= ko:+chikx-an+ü+pa tuʔaw-jem
A3(ERG)=take_care-IRRI+INV road-LOC
'Our Lord Christ will take care of this brother on
the road.' {rss10/2}

b. PO-V-A

wē:naʔkxeʔk tantzüʔ kepwjaʔ ja:tuʔk yoʔjwa
wew+naʔkxej=k tan= tzüʔ ø= kep
then =AN A1(PSR)=mother B3(ABS)=look_for

-ü -w =jaʔ ja:+tuk yoʔjwa
-INV-COMI=DEF another man

'That is when another man looked for my mother.'
{rp3/717}

c. V-PO-A

porke wopüwak jeʔ jaʔ
porke ø= wop-ü -w =ak jeʔ jaʔ
because B3(ABS)=hit-INV-COMI=AN that 3AN
'Because he hit that one (woman.)' {olul/295}

In sum, in a transitive clause with two nominals, when a 3rd person participant ranks higher than the other 3rd

person participant on the animacy hierarchy [in (59b)] the clause must be coded as direct if the most salient nominal refers to the A. It must be coded as inverse if the most salient nominal is to refer to the PO. Thus, the form that the verb takes in such cases is semantically predetermined, as it is when SAP's are involved. Under these circumstances, full word order flexibility is allowed since the animacy sub-hierarchy in combination with the direct/inverse forms of the verb provides the necessary clues as to which nominal stands for which argument of the clause. On the other hand, when the two 3rd person participants rank equally in the animacy sub-hierarchy (59b), but are not equally ranked in the topicality sub-hierarchy (59c), word order flexibility is restricted since the position of the nominals in the clause is the only clue to determine the semantic role of the participants. Direct clauses require that the A precedes the PO, whereas inverse clauses require that the PO precedes the A.

6. Inverse Marking with Nonagentive Bivalent Verbs

Olutec has a large group of two-participant nonagentive verbs such as ʔit 'have,' ʔut 'like,' ka:naʔax 'be salty,' kujumiktzi:yʔ 'get an illness,' jo:m 'sweat,' jaj 'be hot,' whose argument structure consists of a semantic theme as a

first argument and a semantic location, goal, experiencer, or affected entity as a second argument. A subset of this type of verb is known in the literature as psych predicates, psychological predicates, experiencer predicates, or mental verbs (Croft 1991, Pesetsky 1995, Filip 1996). In contrast to the canonical transitive verbs, neither of the two semantic arguments selected by nonagentive bivalent verbs is an actor. I will call these theme-location verbs since in the canonical cases the first argument is a semantic theme and the second argument is a semantic location. When the location (or experiencer) stands as a syntactic argument of the clause, the verb appears followed by the inverse morpheme, as is the case of ?it 'exist' in (105a-c) and jo:y 'be missing' in (106a-c).

(105) Location (Core), Theme (Core)

- a. jo: ta?itü? ta?u:ra
 jo: ta= ?it -ü -pa tan= ?u:ra
 yes B1 (ABS)=exist-INV-INCI.I A1 (PSR)=hour
 'Yes, I have my time.' {aand/391}
- b. nija?mejko je? majaw mi?ityü?küwa?
 ni+ja?mej=koj je? majaw
 similar =just that woman
- mi= ?it -yü?k -ü -w -a?
 B2 (ABS)=exist-first-INV-COMI-NMZR
 'It is like the woman you had first.' {deaa/166}

- c. jeʔk ka:ʔituwak ʔina:xü
 jeʔ =k ø= ka:=ʔit -ü -w =ak ʔi= na:x
 that=AN B3(ABS)=NEG=exist-INV-COM=AN A3(PSR)=land
 'He did not have his land.' {aandb/9}

(106) Experiencer (Core), Theme (Core)

- a. jampaʔna tajo:yi
 jampaʔ =na tan= jo:y -i -y
 this_much=still A1(ABS)=be_missing-COMD-INVD.C
 'I lost this much.' {id3/574}
- b. mika:jo:yanüp niti:
 mi= ka:=jo:y -an+ü+pa ni-ti:
 B2(ABS)=NEG=be_missing-INV+IRRI NEG-thing
 'You are not going be lacking of anything.'
 {rp3/372}
- c. ʔika:jo:ykūxanej ʔikajchanü:nü
 ʔi= ka:=jo:y -kūx-ane -j
 A3(ABS)=NEG=be_missing-PL3-IRRD-INVD.I

 ʔi= kajcha+nü:nü
 A3(PSR)=bread
 'They are not going to be short of bread.'
 {rss10/10}

The two arguments of examples such as (105) and (106) will be represented as:

(107) V (Theme, Location)

The notation in (107) is adapted from Marantz (1984) where the underlined items represents the semantic roles functioning as core arguments of the verb.

The solution that explains the alternation direct vs. inverse offered for canonical transitive verbs does not hold for cases such as (105a-c) and (106a-c) since the argument

structure of ?it and jo:y does not have an actor as a first argument. However, similar to the case of canonical transitive verbs in which the actor and one or two nonactor arguments are ranked in the argument hierarchy (AH), the theme and the location arguments of bivalent theme-location verbs are also differently ranked along the same hierarchy, which is shown in (108).

(108) AH: Actor > Theme > Location
 (1st nonactor) (2nd nonactor)

Semantic Roles of the argument hierarchy:
 (agent/ > theme/ > recipient/goal/
 effector experiencer/
 benefactive/
 addressee
 location/
 malefactive)

Thus, the inverse suffix in (105a-c) and (106a-c) indicates that there is a mismatch between the highest-ranking element in the argument hierarchy which now is the theme, and the highest-ranking element in the saliency hierarchy [represented by the most salient participant of the clause,] which is either either a SAP or a salient 3rd person. In (105c) and (106c) the highest-ranking participant in animacy aligns with the location and not with the theme. Similarly in (105a, b) and (106a, b), the highest-ranking participant

in person (SAP>3) aligns with the location. This is schematized in (109).

(109)

	<u>Inverse (theme-location verbs)</u>		
SH:	<u>Salient 3/SAP</u>	>	Non-salient 3'
AH:	Theme	>	<u>Location</u>

Some theme-location verbs have a monovalent alternate form whose only core argument is a semantic theme. In Marantz's notation the argument structure of these verbs could be represented as having a core argument (underlined) and an indirect (oblique) participant (not underlined), as in (110).

(110) V (Theme, Location)

For instance, ʔit 'exist' is both a monovalent and a bivalent verb. In the monovalent form, as in (111a-c), the theme is the only participant having three of the formal properties that define a core argument. First, the nominal referring to the theme is unflagged (i.e., it is not marked by an adposition.) Only core arguments can be expressed with unflagged nominals. Second, the theme can be cross-referenced by the plural marker on the verb (111c). And third, the theme is signaled on the verb by the absolutive proclitic (111a-c). On the other hand, if a low-salient locative nominal occurs in the same clause, such a nominal

is overtly flagged as oblique by a locative postposition, as in (111a-c).

(111) Monovalent ?it (theme, location)

- a. me:xa?m ta?iti
 me:xa-mü tan= ?it -i
 table-LOC A1(ABS)=exist-INCD
 'I am at the table.' {id3/505}
- b. tü:ya?mpikoj mi?iti
 tü:y+an-pi =koj min= ?it -i
 hammock-LOC=just A2(ABS)=exist-INCD
 'You are just in the hammock.' {olu4/26}
- c. jemak ?i?itküxi tükawku?m je?k xujta:tutük
 je?+mü=ak ?i= ?it -kux-I
 there =AN A3(ABS)=exist-PL3-INCD

 tük+?aw+kuy-mü je? =k xujta:tu-tük
 door -LOC that=AN soldier -PL
 'The soldiers were there, at the door.' {id3/256}

Oblique nominals cannot be cross-referenced by the person proclitic preceding the verb or the verbal plural marker -kux, as shown by the ill-formed example in (112b). Thus, it is clear that in the monovalent form of the verb ?it, the theme is treated as a core argument and the location is treated as an oblique.

- (112) a. ka:?itpa mo:kü kuxtatükjotpi
 ø= ka=?it -pa mo:k kuxtat-tük-jot -pi
 B3(ABS)=NEG=exist-INC.I corn sack -PL -inside-LOC
 'The corn is not inside the sacks.'

b.* \emptyset = ka:=ʔit -kūx-pa mo:k kuxtāt-tük-jot+pi
 B3(ABS)=NEG=exist-PL3-INC.I corn sack -PL -LOC
 (Intended reading: 'The corn is not inside the
 sacks.')

The direct pattern of theme-location verbs illustrated in (111a-c) and (112a) is schematized in (113). In the direct pattern the highest-ranking element on the argument hierarchy (the theme) aligns with the highest-ranking element on the saliency hierarchy. In the same pattern, the location aligns with the lowest ranking element on the saliency hierarchy.

(113) Direct: (Theme (core)-Location (oblique))
SH: Salient 3/SAP > Non-salient 3'
 | |
AH: Theme > Location

In the bivalent alternate form of the verb ʔit 'something exist at location' or 'location has something,' which occurs when the location outranks the theme in saliency, both the theme and the location are treated as core arguments. This is illustrated in (114b) where none of the nominals are flagged as obliques.

(114) a. Monovalent ʔit (theme, location)

ʔitpak pixtük xuʔnijem
 \emptyset = ʔit -pa =k pixtük xuʔni-jem
 B3(ABS)=exist-INC.I=AN fleas dog -LOC
 'There are fleas on the dog.'

b. Bivalent ?it (theme, location)

?itüpak pixtü?k xu?ni
 ø= ?it -ü -pa =k pixtü?k xu?ni
 B3(ABS)=exist-INV-INC.I=AN fleas dog
 'The dog has fleas.'

The fact that both the theme (115a) and the location (115b) can be cross-referenced by the plural marker on the verb demonstrates that both participants are core arguments in the inverse alternation.

(115) Plural cross-references the theme

- a. xi:mu ?itküxüpak mesko xu?niwo?k
 xi:mu ø= ?it -küx-ü -pa =k
 Simon B3(ABS)=exist-PL3-INV-INC.I=AN

metzko xu?ni-wok
 two dog -DIM
 'Simon has two small puppies.'

b. Plural cross-references the location

je?tükak ?itküxüpak tu?k xu?niwo?k
 je?tük=ak ø= ?it -küx-ü -pa =k
 they =AN B3(ABS)=exist-PL3-INV-INC.I=AN

tuk xu?ni-wok
 one dog -DIM
 'They have a small puppy.'

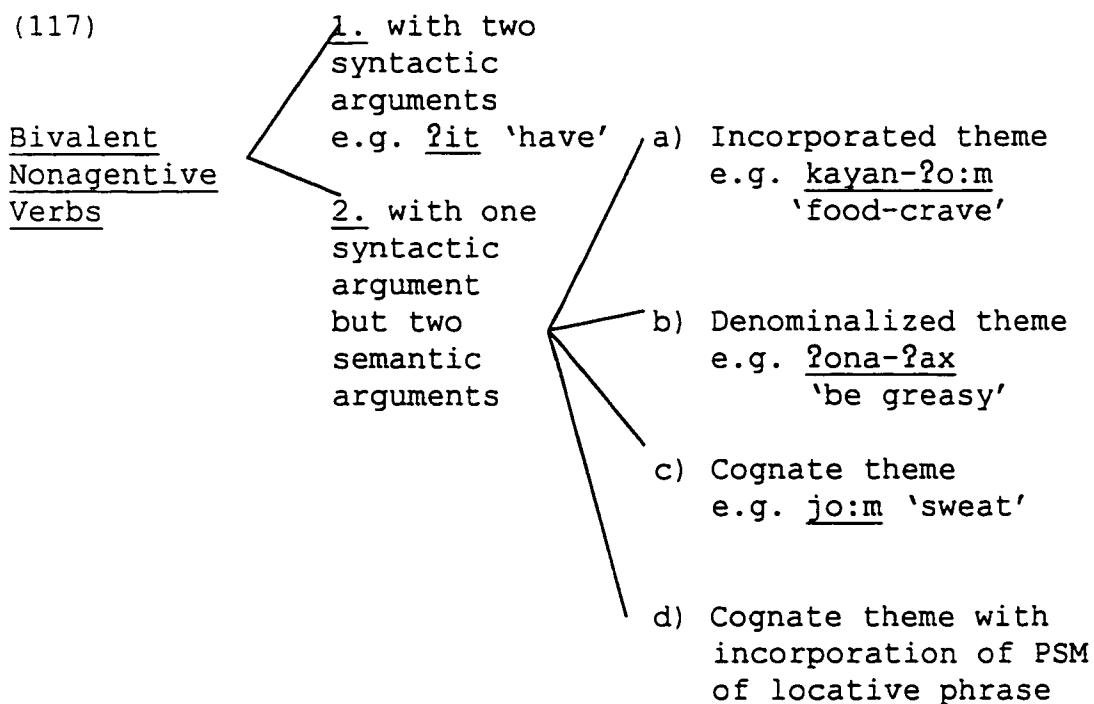
6.1 Subclasses of Nonagentive Bivalent Verbs

A representative group of theme-location verbs is given in (118). These verbal stems are not homogeneous, as two major subsets can be identified on morphosyntactic grounds (See (117)). The first major subset can express the theme external to the verbal stem. An example of the first subset was the verb ʔit 'exist something at location, have.' These verbs are unequivocally bivalent both semantically and syntactically. A second major subset conflates the theme on the verb (Talmy 1985); that is, the theme cannot be expressed by a nominal external to the verbal stem. I will argue that verbs with conflated themes are semantically bivalent but syntactically monovalent, i.e., only the second semantic participant (the location) is treated as a core argument. Verbs belonging to this second subset are ka:naʔax 'be salty,' kayanʔom 'crave food,' jo:m 'sweat,' mu:kʔ 'be drunk,' tux 'feel cold.' Within each major subsets, other subgroupings occur. Some bivalent verbs can display a monovalent alternate form having the theme as the only syntactic argument. For example, the bivalent verb ʔit 'exist something at location, have' has the monovalent counterpart ʔit 'exist.' Others, such as ʔut 'like,' do not exhibit the syntactically monovalent alternate, as shown by the ill-formed example in (116b).

(116) a. ?e:me ?ü:s taka:ʔutüp
 ?e:m+e ?ü:tz ta= ka:=ʔut -ü -pa
 gristle I B1 (ABS)=NEG=like-INV-INCI.I
 'I do not like the gristle.' {rspf2/482}

b.* ?ü:s taka:ʔutpa
 ?ü:tz ta= ka:=ʔut -pa
 I B1 (ABS)=NEG=like-INCI.I

Several subclasses of conflated-theme verbs are identified on the basis of the different patterns of theme-conflation. The three identified patterns are theme incorporation, theme denominalization, and basic theme-verb conflation. I will also refer to the last pattern as the "cognate theme" pattern. There is a fourth subtype of theme-location verbs that, in addition to the theme-conflation, incorporate the nominal that refers to the possessum (PSM) of the locative phrase, e.g. jot-müʔy [stomach-experience nausea] 'experience nausea in the stomach.' This fourth subgroup will not be discussed in this chapter.



The column on the left in (118) lists the bivalent theme-location verb stems. The column on the right lists the cases in which the same verb stem has a monovalent alternate form.

(118) Theme-location verbs

1. Theme is not Conflated on the Verb. (theme, location)

Theme-location
(Syntactically and semantically bivalent)

Theme-only
(Syntactically and semantically monovalent)

ʔut 'like'
ʔom 'crave'
may 'endure something on LOC'
ʔit 'have'
ʔoy 'have' (COM)
tzi:yʔ 'stick on LOC'

///
///
///
'exist'
'exist' (COM)
'take root a plant/stick'

<u>jo:y</u>	'lack, miss something'	'be missing'
<u>toy</u>	'burn on LOC'	'it is hot'
<u>tzu?kx</u>	'get pricked on LOC'	'itch'

2. Theme is conflated in the Verb. (theme, location)

(Syntactically monovalent
and semantically bivalent)

(Syntactically and
semantically monovalent)

a. Conflation by theme incorporation

<u>kujumik-tzi:y?</u>	'get an illness'	///
<u>kayan-?om</u>	'crave food'	///
<u>kotzpa-jo:m</u>	'sweat sticky stuff'	///

b. Conflation by theme denominalization

<u>N-?ax</u>	'exist X at Y ~ (Y has X)'	///
e.g. <u>ka:na-?ax</u>	'Y has salt'	///
<u>ke:ye-?ax</u>	'Y has a sin'	///
<u>?ona-?ax</u>	'Y has fat'	///
<u>?o:pik-?ax</u>	'Y has foam'	///

c. Cognate theme

<u>jo:m</u>	'sweat'	///
<u>mu:k?</u>	'be drunk'	///
<u>jip</u>	'catch a cold, have the flu'	///
<u>jotan</u>	'be angry, be mad'	///
<u>jayyü?k</u>	'be happy'	///
<u>mu?tz</u>	'get moth-eaten at LOC'	///
<u>wok</u>	'get weevil at LOC'	///
<u>wetz</u>	'get termites at LOC'	///
<u>kujum</u>	'be sick'	///
<u>jaj</u>	'be hot at LOC, feel hot'	'it is hot'
<u>tux</u>	'be cold at LOC, feel cold'	'it is cold'
<u>pakik</u>	'be cold at LOC, feel cold'	'it is cold'
<u>xi:p?</u>	'itch in LOC, feel itchy'	'be itchy'
<u>pük</u>	'be sick'	'hurt'
<u>kuj</u>	'have pain on LOC'	'hurt'
<u>ku:p</u>	'hurt on LOC'	'hurt'
<u>to?ow</u>	'have pain on LOC'	'hurt'
<u>kum</u>	'have worms on LOC'	'there are worms'

d. Cognate theme and possessed body part incorporation

<u>jot-mü?y</u>	'experience nausea in the stomach'	<u>mü?y</u>	'be nauseous'
<u>ko?pak-pük</u>	'have a headache'	<u>pük</u>	'hurt'
<u>jot-pük</u>	'have stomach ache'	<u>pük</u>	'hurt'
<u>yo?k-tük?i:y?</u>	'choke on something'	<u>tük?i:y?</u>	'enter'

6.2 Theme-Verb Conflation (Group 2)

In addition to the syntactically bivalent verbs, i.e., verbs which can express the theme and the second participant as core arguments, there are many other theme-location verbs that conflate the theme in the verbal stem.

6.2.1 Theme Incorporation (ABS-N+V-INV)

The first theme-verb conflation strategy is incorporation of the nominal referring to the theme to form a complex verb stem. Only subcategorized nonreferential nouns can be incorporated. In clauses with theme-location verbs the theme (the first subcategorized nominal) is always the lowest-ranking participant in saliency and as such can be incorporated. This is illustrated in (119b) where the noun kayan 'food' is incorporated. Theme-location verbs with an incorporated theme follow the inverse pattern.

(119) a. Non-incorporated Theme

taʔomüw kayaʔn
 ta=ʔom-ü-w kayan
 B1 (ABS)=crave-INV-COM food
 'I (LOC) have a craving for food (THEME).'

b. Incorporated Theme

takayanʔomüw
 ta= kayan-ʔom -ü -w
 B1(ABS)=food -crave-INV-COM
 'I am food-craving.'

In (119b) the semantic experiencer (which I have been referring to as the second nonactor argument, the "location)" is the only core argument of the clause. The verb, however, is semantically bivalent in the sense that it selects for two participants. Thus, incorporating structures with theme-location verbs confirm that all the semantic arguments, independently of their syntactic status, are ranked in the argument hierarchy when the clause is coded as direct or inverse. The use of inverse morphology is triggered by the fact that the lowest-ranking semantic argument on the argument hierarchy (the location) is more salient than the highest-ranking semantic argument on the argument hierarchy (incorporated Theme.) Thus, the same variables that trigger the inverse alternation sketched in (109) also apply to theme-incorporated verbs such as (119b).

6.2.2 Theme Denominalization (ABS-N+ʔax-INV)

The second theme-verb conflation strategy occurs when the theme is denominalized by the verbalizer -ʔax which yields 'exist X (theme) at Y (location.)' As an illustration, consider (120b). In (120a), which is a syntactic bivalent clause, both the theme ʔona 'fat' and the location kayan 'food' stand as core arguments external to the verb. In contrast, in the denominalized structure in (120b), the theme ʔona appears as a formative of the verbal stem. The ill-formed structure in (120c) shows that the theme-denominalized verb does not allow an external noun cross-referencing the denominalized theme. That is, the theme can only be expressed in the verb.

(120) a. Overt theme and location (No conflation)

kayan ʔitüp seme ʔona
 kayan ø= ʔit -ü -pa seme ʔona
 food B3(ABS)=exist-INV-INC.I a lot fat
 'The food (LOC) has a lot of fat (THEME).'

b. Conflation by theme-denominalization

seme ʔiʔonaʔaxij kayaʔn
 seme ʔi= ʔona-ʔax -i -j kayan
 a lot A3(ABS)=fat -VRBZR-INCD-INVD.I food
 'The food is very greasy.'

- c. * seme ?i?ona?axij ?ona kaya?n
 seme ?i= ?ona-?ax -I -j ?ona kayan
 a_lot A3(ABS)=fat -VRBZR-INC-D-INVD.I fat food
 (Intended reading: 'The food is very greasy.')

The theme-denominalization pattern shares three properties with the theme-incorporated pattern. First, the verb is semantically bivalent but syntactically monovalent. Second, the verb shows the inverse marker. And third, the theme is realized as a morphologically analyzable noun within the verbal complex. Thus, the inverse pattern shown by these verbs can be explained using the same variables sketched in (109).

6.2.3 "Cognate" Theme (ABS-V-INV)

The third group of theme-conflated verbs cannot express the theme overtly, either externally to the verb or as an analyzable noun forming part of the verbal stem. An example is (121a). In (121a) the location is the only core argument. Observe that the construction with the theme expressed overtly in (121b) is ill-formed.

- (121) a. mu?tzüp kuyü
 ø= mu?tz -ü -pa kuy
 B3(ABS)=have_moth-INV-INC.I tree
 'The tree is being moth-eaten.'

- b. * muʔtzüp muʔtzüpaʔ kuyü
 ø= muʔtz -ü -pa muʔtzüpaʔ kuy
 B3(ABS)=have_moth-INV-INC.I moth tree
 (Intended reading: 'Moths are moth-eating the tree.')

I assume that the argument structure of the verb muʔtz, in (121a) is similar to any other nonagentive bivalent verb: V(theme, location). Verbs of this subgroup are jo:m 'sweat,' jip 'have the flu,' jotan 'be angry,' jayyüʔk 'be happy,' wetz 'get termites,' jaj 'feel hot,' tux 'feel cold' and others. I refer to this third subgroup as cognate-theme verbs because the pattern is analogous to the cognate-object pattern well known in many languages (cf. Austin 1982). My claim is that this set of verbs contains a lexicalized cognate theme conflated in the verb root. Evidence for this view can be found in how speakers unpack the information contained in these verbs in a special pattern of speaking known in Middle-American linguistics as parallelism (Quiche (Norman 1980), Tojolabal (Brody 1986), Tzotzil (Brown 1996)). Parallelism or repetition is a special speech practice that can be recognized by the extensive use of grammatically or semantically parallel couplets. Speakers of Olutec, both in monologues and conversations, switch back and forth from a structure with a conflated-theme verb to a structure in which the theme is expressed overtly. The

information expressed in both types of clauses is the same, what changes is the way in which the information is packaged. The examples in (122), from a narrative, and (123), from a conversation, illustrate the use of semantic parallelism in which conflated and non-conflated verbs occur.

(122) a. Cognate Theme

naʔkxej tankujumiy
 naʔkxej tan= kujum -i -y
 when Al(ABS)=be_sick-COMD-INVD.C
 '...when I got sick'

b. Cognate Theme

tankujumiy
 tan= kujum -i -y
 Al(ABS)=be_sick-COMD-INVD.C
 'I got sick'

c. I called her

d. Nonagentive with External Theme

porke kujumiʔk taʔitiy
 porke kujum -ik tan= ʔit -i -y
 because be_sick-PCP Al(ABS)=exist-COMD-INVD.C
 'because I had a sickness'

(123) a. AA Cognate Theme

ʔasta jo:müpaʔ
 ʔasta ø= jo:m -ü -pa =jaʔ
 even B3(ABS)=sweat-INV-INC.I=3AN
 'He is even sweating'

b. RS Cognate Theme

ʔasta jo:müpaʔ mü:t ʔini:wi mü:t ʔikafeʔt
 ʔasta ø= jo:m -ü -pa =jaʔ mü:t
 even B3(ABS)=sweat-INV-INC.I=3AN with

ʔi= ni:wi mü:t ʔi= kafet
 A3(PSR)=pepper with A3(PSR)=coffee
 'He is even sweating because of the hot pepper and coffee'

c. AA He has a runny nose ... very often ...

d. RS He is eating

e. AA And what else

f. RS He is cleaning his face

g. Nonagentive with External Theme

porke ʔitüpak ʔijo:mak
 porke ø= ʔit -ü -pa =k ʔi= jo:mak
 because B3=exist-INV-INC.I=AN A3(PSR)=sweat
 'because he has sweat'

h. AA Nonagentive with External Theme

segi:do ʔimiʔni jo:mak ʔiwintojkü:kpi
 segi:do ʔi= mi:nʔ-i jo:mak ʔi=wintoj+kü:k-pi
 often A3(ABS)=come-INC.I sweat A3(PSR)=face -LOC
 'The sweat comes often to his face'

Therefore, the variables in (109) can also account for the fact that these verbs show inverse morphology since the cognate theme, which is the highest participant in the argument hierarchy, is outranked in saliency by the only core argument of the clause, the location.

To summarize, I have shown that the presence of inverse morphology with verbs lacking an external nominal referring to the theme can be accounted for if we recognize that these sets of verbs have a conflated theme within the verbal root. Theme-location verbs with a conflated theme are syntactically monovalent but semantically bivalent. Thus, these verbs follow the inverse pattern because the lowest-ranking element on the argument hierarchy (the location) outranks in saliency the highest-ranking element on the argument hierarchy (the theme.)

7. Two Additional Classes of Derived Nonagentive Bivalent Verbs

Two additional constructions that pattern similarly to the constructions with theme-location verbs are the malefactive applicative constructions with intransitive verbs and the passives of ditransitive verbs. The similarity in morphosyntactic behaviour can be accounted for by the similarity in their argument structure.

7.1. The Malefactive/Benefactive Construction with
Intransitives

Not all intransitive nonagentive verbs have underived two-argument lexical theme-location counterparts. However, with many verbs of this set, a salient second semantic argument can be conveyed as a core argument once the verb carries the applicative küj- 'malefactive/ benefactive applicative [APPL2]' (see Ch. 5, §2). For instance, the verb ʔo:k 'die' cannot take a malefactive argument without first being prefixed with küj-, (124b). The argument structure of küj-ʔo:k 'die on someone' in (124c) can be represented as V (theme, malefactive.)

- (124) a. ʔo:kukü ja:tuʔk yoʔjwa ʔiküʔp
 ø= ʔo:k-u =k ja: -tuk yoʔjwa
 B3(ABS)=die -COMI=AN other-one man

 ʔi= küʔ -pi
 A3(PSR)=hand-LOC
 'She died in the arms of another man.' {olul/335}
- b. * ø= ʔo:k-ü -w =ak
 B3(ABS)=die -INV-COM=AN
 'Intended reading: 'She died on him.'

- c. küʔo:küwxük ʔimajaw jeʔxük yoʔjwa
 ø= küj- ʔo:k-ü -w =xü=k
 B3 (ABS)=APPL2-die -INV-COMI=EV=AN
- ʔi =majaw jeʔ =xü=k yoʔjwa
 A3 (PSR)=woman that=EV=AN man
 'His wife died on that man.' {olu5/11}

In the applicative construction, the verb selects for two nonagentive arguments. The first semantic argument is a theme, and the second semantic participant is a benefactive or malefactive participant. The second participant (the lowest in the argument hierarchy) always outranks the theme in saliency and for that reason the verb bears the inverse suffix.

7.2 Passives of Ditransitives

Canonical monotransitive verb roots can bear the applicative -ja:yʔ [-ay ~ -aʔx] 'benefactive [APPL1]' which brings into core argument status a recipient, addressee, goal, benefactive, malefactive or location (see CH. 5, §1). Olutec treats the third participant as the PO of the clause. As an illustration consider (125a-b).

(125) a. Direct

tanmü:minküxayuk mesko kawa:yu le:ncho
 tan= mü:mi:nʔ-küx-ay -u =k metzko kawa:yu
 A1(ERG)=bring -PL3-APPL1-COM=AN two horse

le:ncho

Lencho

'I brought two horses to Lencho.'

b. Inverse

tamü:minküxaʔxüwak mesko kawa:yu le:ncho
 ta= mü:mi:nʔ-küx-aʔx -ü -w =ak metzko
 B1(ABS)=bring -PL3-APPL1-INV-COM=AN two

kawa:yu le:ncho

horse Lencho

'Lencho brought me two horses.'

The verb in (125a) is rendered in the direct form because the actor, which is the highest-ranking element in the argument hierarchy (actor>theme>recipient), coincides with the most salient participant of the clause. The verb in (125b) is rendered in the inverse form because the lowest ranking element on the argument hierarchy (the recipient) is also the most salient participant of the clause.

Example (126) is the passive counterpart of (125b). Note that the applicative and inverse suffixes appear in both (125b) and in (126). The following facts confirm that both the theme and the recipient are core arguments in the passive of ditransitives. In (126), the theme cross-

references the plural on the verb and is unflagged as oblique. The recipient's core status is confirmed by the fact that it is signaled by the 1st person absolutive proclitic on the verb.

(126) Passive

tayakmü:minküxa?xüwak mesko kawa:yu
 ta= yak- mü:mi:n?-küx-a?x -ü -w =ak
 B1 (ABS)=PASS-bring -PL3-APPL1-INV-COM=AN

 metzko kawa:yu
 two horses
 'I was brought two horses.'

The verb in (126) is bivalent and has a similar argument structure to theme-location verbs and derived malefactive verbs. The three types of bivalent predicates have an argument structure that includes two nonagentive arguments. In the case of the passive of ditransitives, the verb's argument structure can be represented as V (theme, recipient.) I deduce that the presence of the inverse suffix in (126) is triggered by the fact that the theme outranks the recipient on the argument hierarchy, whereas the recipient outranks the theme on the saliency hierarchy. This is represented in (127) below.

(127) Inverse Pattern with Passives of Ditransitives

<u>SH:</u>	<u>SAP/Salient 3</u>	>	Non-salient 3'
<u>AH:</u>	Theme	>	<u>Recipient</u>

8. Conclusions

This chapter documented the system for encoding core arguments in the Olutec verb. Olutec exhibits an ergative system of a kind that has not previously been reported in the literature. The language distinguishes two types of clauses: independent vs. dependent. The two types of clauses can be identified by their dissimilar patterns for marking aspect and person. Olutec follows an ergative alignment in both independent and dependent clauses. It uses three sets of person proclitics to signal the core arguments of the clause (Set A, B, C.) Set B functions as absolutive in independent clauses, Set C functions as ergative in dependent clauses, and Set A functions as ergative in independent clauses and absolutive in dependent clauses.

Olutec is also an inverse language. Crosslinguistic definitions of inverse languages have assumed that the direct/inverse alternation can only occur with canonical transitive verbs, i.e., bivalent verbs that select for an agentive first participant and for a nonagentive second

participant. I have presented evidence in this chapter that inverse marking in Olutec is not restricted to instances of canonical transitive verbs. It is also attested with nonagentive bivalent verbs which can have one or two surface syntactic arguments.

An important goal of this chapter was to spell out the rationale that motivates the use of inverse morphology in all these circumstances. I suggested that inverse morphology indexes the mismatch of the highest-ranking participant on the argument hierarchy with the highest-ranking participant on the saliency hierarchy within a semantically bivalent clause. The inverse is chosen when the second or third selected participant of bivalent and trivalent verbs outranks the first selected participant in saliency. To say first, second, and third selected participants is to say that Olutec has an argument hierarchy in which the semantic roles of the verb are ranked. The argument hierarchy operating in Olutec is (Actor>Theme>Location.) The location role could be treated as a third "macro-role" or "proto-role" in the parlance of Foley and Van Valin (1984) and Dowty (1991). In Olutec the location "macrorole" embodies the semantic roles of locative, experiencer, dative of interest, benefactive, malefactive, and recipient.

Canonical (di)transitive verbs bear an inverse marker when the theme (second participant) or the recipient (third

participant) outranks the actor (first participant) in saliency. Nonagentive bivalent verbs (i.e., theme-location verbs, derived malefactive verbs, as well as passives of ditransitive verbs) bear an inverse marker when the semantic location, experiencer, malefactive, benefactive, or recipient (second participant) outranks the semantic theme (first participant) in saliency.

The set of theme-location verbs is not homogeneous. The subclasses suggested in this paper are based on the realization of the semantic arguments of the verb. Two major subsets were proposed: 1) verbs with external theme and 2) verbs with conflated theme. Within the second set, three different patterns of theme-conflation were identified: 1) cognate theme, 2) denominalized theme, and 3) incorporated theme.

I argued that verbs with conflated theme are syntactically monovalent but semantically bivalent. Thus, the fact that Olutec verbs with conflated theme make use of inverse morphology shows that both semantic and syntactic arguments come into play for the purpose of coding a clause as direct or inverse. In the argument hierarchy proposed above all the arguments selected by a verb are ranked independently of their lexical realization or syntactic

status. In other words, I have argued that, at least in the case of theme-location verbs with conflated theme, the decision as to whether to code the clause as inverse or direct does not depend on the syntactic properties of the arguments that are ranked. A predicate with a conflated theme, which is syntactically an uncontroversial intransitive verb, occurs with the inverse marker because the first selected argument, i.e., the theme that happens to be conflated in the verb, is outranked in saliency by the second selected argument, which is the only core argument of the clause. Thus the Olutec data presented here forces us, first, to reconsider what counts as a verbal argument, at least in terms of direct or inverse assignment, and second, to redefine what inversion is really about. I hope the discussion here will help to define the parameters that we have to take into consideration to understand the grammatical organization of an inverse language.

Notes

¹ I am avoiding the assumption that the actor is the syntactic subject and the non-actor the syntactic direct object, or the opposite which has been claimed for some ergative languages (Manning 1996). Dryer (1996) has argued that there are no syntactic relations in Kutenai, another inverse language. In addition, some inverse languages can treat two non-actor arguments ("notional direct object" and "notional indirect object") of ditransitives as direct core arguments (as is the case of Olutec and Yimas (Foley 1991)); and some other languages treat either the notional direct object or the notional indirect object of ditransitives as the second preferred direct core argument. See the distinction made between primary vs. secondary object languages in Dryer (1986).

² In Algonquian studies, the lowest ranked participant (3') is referred to as the "fourth person" or "obviative".

³ An equivalent in English would be: The books are in the box. The nominal phrase the books is semantically a theme, and the prepositional phrase in the box is semantically a location. To convey a semantic equivalent to the Olutec inverse construction English uses the verb "to have" instead of the verb "to be". Both the semantic location and the semantic theme are core arguments in: The box has books in it.

⁴ Instead of the term actor other terms have been used in the literature: a) agent (Thompson 1994, Givón 1994b, and many others), b) logical subject (Klaiman 1992), c) initiator of the action (DeLancey 1981a), d) notional subject or A (Dryer 1991a).

Both in the contrastive studies of inverse languages and in the description of particular cases, the tendency has been to refer to the second participant of monotransitives and to the third participant of ditransitive verbs as an undifferentiated category when the language distinguishes Primary vs. Secondary Objects (Dryer 1986). To refer to the Primary Object of a transitive verb different terminology has been used. Klaiman (1992) calls it logical object, Dryer (1994) notional object or P, Givón (1994b) Patient, DeLancey (1981a) end-point of the action, Whistler (1985) Goal.

⁵ The symbol /ø/ is used for representing the absence of an overt 3rd person morpheme in the paradigm of absolutive markers for independent clauses.

⁶ The completive suffix -u becomes -w when preceded or followed by a vowel.

⁷ The suffix -am occurs in direct clauses and the discontinuous suffix -an...pa occurs in inverse clauses.

⁸ The etymological source for the exclusive marker -ütz is the first person independent pronoun ʔü:tz.

⁹ The etymological source for the third-person plural marker -küx is the verb küx 'finish' (see CH 4, §9.1).

¹⁰ For some speakers the vowel of all 1st person markers tan= (Set A), ta= (Set B), tax= (Set C), and ta= (Set C), is /ü/ instead of /a/. In Clark (1981) the paradigm of person markers that I list with /a/ are listed with /ü/. Among the speakers I have worked with, only two use the forms with the vowel /ü/ instead of /a/. There is comparative evidence which suggests that the forms with /ü/ are more conservative, i.e., similar to the person markers that have been reconstructed for Proto-Mixe-Zoque (cf. Wichmann 1995: 95-100, and Kaufman 1963).

¹¹ The neighboring Mayan languages also show a similar pattern by which the possessor on the noun and the ergative on the verb are recruited from the same pronominal paradigm.

¹² Auxiliaries can be distinguished from matrix verbs by their distinctive morphosyntactic behavior. Person proclitics occur on matrix verbs but do not occur on auxiliaries. The understood subject of the auxiliary, which is semantically coreferential with the subject of the dependent verb, is marked only on the dependent verb and not on the auxiliary:

- (i) Auxiliary + Person Proclitic + Dependent Verb.
 mi:nʔ-u tan= ma:jʔ-i
 come-COMI Al(ABS)=sleep-INCD
 'I came to sleep.'

In contrast, the coreferential subject of a matrix verb and its dependent verb occurs before each of the two predicates:

(ii) Person Proclitic_i + Matrix Verb + Person Proclitic_i
Dependent Verb

tan= wa:nʔ-u tan= ma:jʔ-i
 A1(ERG)=want -COMI A1(ABS)=sleep-INCD
 'I wanted to sleep.'

¹³ A feasible analysis would be to consider notional adverbs as higher predicates whose complement is the clause in second position. This analysis would treat auxiliaries, matrix verbs and adverbs in a uniform way, i.e., as higher predicates that subcategorize for embedded clauses in second position. I only point out such a plausible analysis without any commitment. For the purposes of this chapter, I will distinguish the three syntactic categories that trigger the use of dependent clauses.

¹⁴ Some speakers use the dependent marking pattern in contexts in which the discourse topic is maintained through various clauses, even though the verb is not preceded by an auxiliary, an adverb, or a matrix verb.

¹⁵ Observe that a similar pattern with respect to the selection of irrealis markers is attested in independent clauses where the suffix -am occurs in direct clauses and the discontinuous suffix -an...pa occurs in inverse clauses. Historically, the irrealis marker for both independent and dependent clauses comes from the verb *wa:nʔ 'to want' which diachronically was the matrix verb to which the preceded clause was embedded. The bilabial nasal of the irrealis independent suffix -am indicates that, at some point, the verb *wa:nʔ was followed by the inchoative -pe. The nasal of the verb *wa:nʔ assimilated to the bilabial consonant of the inchoative suffix -pe, before this last suffix dropped. The irrealis for independent inverse -an-ü-pa historically comes from *wa:nʔ-ü-pa (want-inverse-inchoative for independent intransitive.) The irrealis for dependent inverse -aʔn+e historically comes from *wa:nʔ-e (want-inchoative for dependent.)

¹⁶ See also Aissen (1997) who argues that the distinction among obviative and proximate nominals is also present in Tzotzil and Chamorro, two languages which do not overtly mark obviation on the nominals.

¹⁷ "Direction marker" is a term used by DeLancey 1981b.

¹⁸ Note that whereas in independent clauses the inverse marker precedes the aspectual suffix, in dependent clauses the inverse marker follows the aspectual suffix.

(i) a. Independent incompleted. V-INV-ASP

ta= tzuk-ü -pa =k le:ncho
 B1(ABS)=cut -INV-INC.I=AN Lencho
 'Lencho is cutting me.'

b. Dependent incompleted. V-ASP-INV

ya?+mü=ak tan= tzuk-i -j le:ncho
 here =AN A1(ABS)=cut -INCD-INV.D.I Lencho
 'Lencho is cutting me here.'

(ii) a. Independent completive. V-INV-ASP

ta= tzuk-ü -w =ak le:ncho
 B1(ABS)=cut -INV-COM=AN Lencho
 'Lencho cut me.'

b. Dependent incompleted. V-ASP-INV

ya?+mü=ak tan= tzuk-i -y le:ncho
 here=AN A1(ABS)=cut -COMD-INV.D.C Lencho
 'Lencho cut me here.'

¹⁹ Remember that in the configuration (3:1), (3:2), and (3:3') the inverse suffix -ü precedes the aspect marker in independent clauses.

CHAPTER IV

SERIAL VERBS

0. Introduction

Olutec has complex verb words formed by the combination of more than one verbal root without any morphological sign of embedding or subordination. These combinations constitute a formal unit, i.e. they are part of the same phonological and morphological word. In line with Foley and Olson 1985, I call these serial verb constructions. Serial verb constructions name conventionalized activities which involve a sequence of two or more subevents. The meaning of the complex verb is not always compositional since it cannot be predicted by the sum of the meanings of its parts. Complex verbs of this type are common in West Africa, Southeast Asia, Melanesia, Papua New Guinea and in pidgins and creoles (Cf. Bisang 1995, Crowley 1987, Durie 1988, 1997, Foley and Olson 1985, Foley 1986, Givón 1975, Givón 1991a, 1991b, Lord 1993, Pawley 1993, Seiler 1986).

Mesoamerican languages are not generally classified typologically as "verb serializing" languages. However, Olutec exhibits one type of serial verb construction known

in the literature as "nuclear serialization" (Foley and Van Valin 1984; and Foley and Olson 1985). This type of verb serialization has been documented for several Papuan languages (Foley 1986, Foley and Olson 1985). The term "verb compound" is used to describe a similar construction in Mandarin Chinese (Li and Thompson 1981) and other South Asian languages. The verbs within this type of serialization share the operators marking aspect, modality and polarity, and at least one core argument. I will argue that this construction was the source from which various verbal affixes evolved. Some of the paths of grammaticalization have been documented for other verb serializing languages, but others have not been reported in the literature.

1. Serial Verb Types

Foley and Van Valin (1984), Foley and Olson (1985) and Crowley (1987) have pointed out that there are at least two types of verb serialization. Semantically, each type takes place at a different "layer" within the clause. The three recognized clause layers are the nucleus, the core and the periphery. Each layer has its own particular set of operators. Cross-linguistically, serialization can take

place at either the nucleus or at the core layer of the clause.

Olutec only exhibits serialization at the nuclear layer, i.e. the innermost layer where the serialized verbs share aspect, mood, and negation. The two or more verbs in nuclear serialization cannot be separated by intervening morphological material. This type of construction has been amply documented for several Papuan languages (cf. Foley 1986, 1991, Seiler 1986, Bruce 1988), and it is also known in the literature as root serialization (Bisang 1995). As an illustration, consider the following examples in which both the person proclitic and the aspect suffix have scope over the two serialized verbs occurring in between. Note that there is no morphological indication of conjunction or embedding between the two verbs.

- (1) a. jeʔ tankaymaju
 jeʔ tan= kay-ma:jʔ-u
 that A1(ERG)=eat-sleep-COMI
 'I had it for dinner.' {C9/83}
- b. joʔnkaypa mixtuʔn
 ø= joʔn -kay-pa mixtun
 B3(ABS)=steal-eat-INCI.I cat
 'The cat is eating stolen things.'

The verb roots participating in the serial verb construction in (1) can appear forming coordinate, (2a), and subordinate,

(2b), complex sentences. In complex sentences each verb carries its own person proclitic and aspect marker.

(2) a. Coordinated complex sentence

tankayu jeʔ mü:t tama:nüw
tan= kay-u jeʔ mü:t
A1(ERG)=eat-COMI that and

ta= ma:jʔ-nü -w
B1(ABS)=sleep-already-COMI
'I ate and slept.'

b. Subordinated complex sentence

jaʔk mixtuʔn ʔijoʔmpeʔej ʔikaype jaʔ
jaʔ=k mixtun ʔi= joʔn -pe -ʔej
DEF=AN cat A3(ERG)=steal-INCI.T-NMZR

ʔi= kay-pe jaʔ
A3(ERG)=eat-INCT.T 3AN
'The cat is eating stolen things.'

The examples in (3) show that, in nuclear serial verb constructions, the scope of modification of modals and negative markers is over the two consecutive verb roots.

(3) a. Imperative

xejʔükü
xej -pük -ü
exhale-grab-IMPR
'Rest!'

b. ʔu:kmaʔjü:t mi:tza:teʔk
ʔu:k- ma:jʔ-ü -:t mi:tza:tek
drink-sleep-IMPR-PL.SAP you (pl)
'All of you have dinner!'

c. Negative

takaʔxejʔükpa ʔü:tz
ta= ka:=xej -pük -pa ʔü:tz
B1(ABS)=NEG=exhale-grab-INCI.I I
'I do not rest.' {C3/24/254}

- d. Jussive and Negative
 taka:yakmiʔnanak jeʔ jaʔmeʔaj
 ta= ka:=yak -mi:nʔ-an =ak jeʔ jaʔmejʔaj
 JUSS=NEG=give-come -IRR=AN that in that way
 'May he not bring those things that way.' {rs1/72}

In contrast, in complex sentences, modals and negative markers only have scope of modification over the verb root to which the operator is directly attached. Compare (3b) with the following two complex sentences. In (4a), the imperative marker has scope of modification over the first verb only. In both (4a) and (4b), the scope of the negative marker is over the second verb of the complex construction.

- (4) a. ʔu:kü me:nte mikama:pa
 ʔu:k -ü me:nte mi= ka:=ma:jʔ-pa
 drink-IMPR while B2(ABS)=NEG=sleep-INC.I
 'Drink! while you are not sleeping'
- b. taʔu:ku mü:t takama:nüw
 ta= ʔu:k -u mü:t
 B1(ABS)=drink-COMI and
- ta= ka:=ma:jʔ-nü -w
 B1(ABS)=NEG=sleep-already-COMI
 'I drank and didn't fall sleep.'

Aspectual (5a-c) and modal auxiliaries (6a-b) preceding the complex predication have scope of modification over the two serialized verbs.

- (5) Aspectual Auxiliaries
- a. ni^{je?}koj [?]i^{xi?}k tapiwkote küpi
 ni+je?⁼koj [?]i^{x?}i:y?-i =k
 that =just begin -COMD=AN
- ta= piw -kot -e küpi
 C3(ERG)=gather-be together-INCD firewood
 'That one began collecting firewood.' {rspf2/22}
- b. küxwa? xkayjo:yⁱ
küx -w -a? tax= kay-jo:y-i
 finish-COMI-PERF C1(ERG)=eat-lack-INCD
 'I have finished eating everything.' {rs2/87}
- c. nüxⁱ tyak[?]o:ke je?^k [?]i[?]una?^k
nüx-i ta= yak-[?]o:k-e je? =k
 go -INCD C3(ERG)=give-die -INCD that=AN
- [?]i= [?]unak
 A3(PSR)=offspring
 'He is going to kill his son.' {olu28/93}
- (6) Modal Auxiliaries
- a. kajajatuk [?]itzapiyü?^{ki}
 ka:=ja= jat -u =k [?]i= tzap-piyü?^{k-i}
 NEG=MIRAT=be able-COMI=AN A3(ABS)=rise-run -INCD
 'He was not able to stand up.' {lm2/166}
- b. pero ka:jatuk tyakpakawküxi
 pero ka:=jat -u =k
 pero NEG=be able-COMI=AN
- ta= yak -pakaw -küx-i
 C3(ERG)=give-be straight-PL3-COMD
 'They could not straighten it.' {rspf1/98}

The verbs in serial verb constructions must share at least one argument. Foley and Van Valin (1984) and Foley and Olson (1985) have recognized two different types of serial verb constructions on the basis of the relations that holds between the arguments of each verb.

In the first type there is an identity between the two subjects (S if intransitive, A if transitive) of the serialized verbs. Same-subject serialization with two intransitive verbs is illustrated in (7a-c).

- (7) S-S are Coreferential
- a. majü:kxküpaxpa ja?
 ø= ma:jʔ-jü:kx-küx-pa ja?
 B3(ABS)=sleep-snore-PL3-INCI.I 3AN
 'They are sleeping and snoring.' {aand/174}
- b. pero tatwakxu jeʔ lime:ta
 pero ø= tatz-wakx -u jeʔ lime:ta
 but B3(ABS)=fall-spread-COMI that bottle
 'But the bottle broke down (fall-spread.)'
 {id2/84}
- c. ʔirrü:wpitzümküxi
 ʔi= rrü:w-pitzüm-küx-i
 A3(ABS)=swarm-exit -PL3-INCD
 'They went out swarming.' {abeja/122}
- d. yam miyokxpetaʔn
 yaʔ+mü min= yokx-pet -aʔn
 here A2(ABS)=jump-ascend-IRRD
 'You are going to jump here.' {piojo/49}

Same-subject verb serialization is also attested in cases in which one of the serialized verbs is transitive. The examples in (8) illustrate same-subject serial verb constructions in which the first verb is transitive and the second verb is intransitive.

- (8) A-S Coreferential
- a. tankaymaʔjamak piyu
 tan= kay-ma:jʔ-am =ak piyu
 A1 (ERG)=eat-sleep-IRRI=AN chicken
 'I am going to have chicken for dinner (eat-sleep.)' {DICT}
- b. ʔiʔu:kma:küxpe ʔonamüʔki mü:t ʔi toypa kafeʔt
 ʔi= ʔu:k -ma:jʔ-küx-pe ʔona+mü:kʔ+i mü:t
 A3 (ERG)=drink-sleep-PL3-INCI.T tamal with

 ʔi= toy+pa kafet
 A3 (PSR)=warm coffee
 'They have tamales and warm coffee for dinner (drink-sleep.)' {olu3/66}

Examples of same-subject verb serialization in which the first verb is intransitive and the second verb is transitive are shown in (9).

- (9) S-A are Coreferential
- a. tanya:xpa:ta:maʔ jaʔ tantükawa:teʔk
 tan= ya:xʔ-pa:t-am -aʔ jaʔ
 A1 (ERG)=shout-find-IRRI-AN DEF

 tan= tükaw+ʔa:ttek
 A1 (PSR)=father+PL.SAP
 'I am going to call on (shout-find) Our Lord.'
 {RSAAPF}
- b. ʔiwaʔkpa:tu tuʔk mü:tzukiʔn
 ʔi= waʔk-pa:t-u tuk mü:+tzukin
 A3 (ERG)=walk-find-COMI one enemy
 'By chance he came upon (walk-find) his opponent.'
 {DICT}

In the following examples the two serialized verbs are transitive and share the same subject.

- (10) A-A are Coreferential
- a. jeʔ ʔu:ra taxʔixmatzi
 jeʔ ʔu:ra tax= ʔix-matz -i
 that hour C1(ERG)=see-touch-COMD
 'At that time I tried (see-touch) it.' {lm3/352}
- b. kaʔnaʔkxik taxpa:ti ʔichiʔwi
 ka:=naʔkxi=k tax= ʔix-pa:t-i
 NEG=when =AN C1(ERG)=see-find-COMD
- ʔi= chi:wʔ-i
 A3(ABS)=bath -INCD
 'I never found (see-find) him taking a bath'
 {C7/26/13}
- c. ti: ʔu:rak taxwopükaʔn
 ti: ʔu:ra=k tax= wop-pük -aʔn
 what hour =AN C1(ERG)=hit-grab-IRR
 'At what time am I going to herd (hit-grab) them
 up.' {C9/64/577}

The second type of serial verb construction is attested when the object (O) of a transitive verb is coreferential with the subject of an intransitive or transitive verb. Crowley (1987:39) refers to this type of serialization as "switch-subject serial verbs". As an illustration consider the examples in (11a-c). In (11a) the semantic theme of the transitive verb ju:t 'unsheathe' is coreferential with the only argument of the verb pitzüm 'exit'. This type of switch-subject serial verb construction was the source from which the paradigm of directionals grammaticalized.

(11) O-S are Coreferential

- a. jeʔ ʔu:raxüʔk taju:tpitzümi ʔikuchi:nu
 jeʔ ʔu:ra=xü=k ta= ju:t -pitzüm-i
 that hour =EV=AN C3(ERG)=unsheathe-exit -COMD
- ʔi= kuchi:nu
 A3(PSR)=knife
 'At that time he unsheathed (unsheathe-exit) his
 knife.' {diab2/106}

Switch-subject serial verb constructions are also known as "serial causative verbs" or "cause effect serialization" (Durie 1988:331) due to examples such as (12b-c). In these cases the first verb of the complex predication conveys a causative event whereas the second verb encodes the end-result or effect of the previous event. In (12a-c) the O of the transitive verb (the first verb of the serialized complex) is coreferential with the S of the second verb.

(12) O-S are Coreferential

- a. jama:k kumpa:ne ʔiyakʔo:kuxü jaʔ tzanaʔy
 jamaj=k kumpa:ne ʔi= yak- ʔo:k-u =xü jaʔ
 that =AN friend A3(ERG)=offer-die -COMI=EV DEF
- tzanay
 snake
 'That friend killed the snake.' {olu2/8}
- b. minwoske:knüwaʔ teʔ yaʔaj
 min= wotz-ke:kʔ-nü -w -aʔ teʔ yaʔaj
 A2(ERG)=pull-move -already-COMI-PERF truly this
 'You have pulled it (the wire) out already.'
 {aand2/117}

- c. tajuyjo:yküxi na:xütük
 ta= juj-jo:y-küx-i na:x -tük
 C3(ERG)=buy-lose-PL3-COMD earth-PL
 '(The ranchers) buy all the pieces of land.'
 {C10/53/33}

2. Productivity and Lexicalization

Several studies have shown that nuclear serial verb constructions describe situations that may be conveyed by one single verb in non-serial verb languages (Givón 1991a, 1991b, DeLancey 1991b, Durie 1997, Pawley 1993, inter alia.) Serial verb constructions express what is conceptualized by native speakers as a single event. Olutec allows serial verb constructions containing as many as five verbs.

- (13) a. Two verbs:
kay-jo:y 'finish eating'
 eat-lack
- b. Three verbs:
yak-chi:w-jot 'take off the leaves of a
 offer-grab-make_hole corncob'
- c. Four verbs
yak-ʔix-nax-küx 'teach to read'
 offer-see-cross-finish
- d. Five verbs
yak-wo:k-kot-pet-küx 'they were gathered'
 offer-scratch-be_together-ascend-finish

Different degrees of compositionality can be found in Olutec serial verb constructions. The meaning of some

of verbs in the following examples have developed particular meanings which cannot be discerned by the sum of the meanings of the individual verbs.

- (16) a. ya:xʔ-pa:t (scream-find) 'call on'
 b. ma:jʔ-ʔo:k (sleep-die) 'be a sleepyhead'
 c. ma:jʔ-ʔüj (sleep-grunt) 'have nightmares'
 d. kay-tzow (eat-cost) 'cadge, scrounge'
 e. jat-pük (be able-gather) 'learn'
 f. xej-pük (exhale-gather) 'rest'
 g. pük-tzow (grab-cost) 'receive'

Some complex words include roots that no longer exist as independent items within the repertoire of Olutec simple verb roots. However, some of these roots have been reconstructed as simple verbs for Proto-Mixe-Zoque and synchronically are verb roots in various daughter languages. This is the case of ʔix, a root meaning 'to see', 'to look at', 'to stare at' in various members of the Mixe-Zoque family (Wichmann 1995:236). In Olutec ʔix, which appears in various complex verbs, cannot occur as a simple verb anymore.

- (17) a. ʔix-matz (see-touch) 'taste, try'
 b. ʔix-nax (see-cross) 'read'
 c. ʔix-kap (see-carry on the shoulder) 'know'
 d. ʔix-pa:t (see-find) 'meet with someone'
 e. ʔix-tu:tʔ (see-put) 'hunt'

A similar case is the morpheme tzap which seems to be an old verbal root meaning 'rise' which synchronically only appears in compounds.

- (18) a. tzap-kap (rise-carry on shoulder) 'to lift on the shoulder'
 b. tzap-piyü?k (rise-run) 'get up (smoothly)'
 c. tzap-tzüm (rise-carry_on_back) 'carry on back'

Several studies in serial verb languages have shown that constructions with juxtaposed verbs tend to be reanalyzed so that the high-frequency verbal roots become grammatical morphemes (Bisang 1995, Bruce 1988, DeLancey 1991b, Durie 1998, Givón 1975, Givón 1991a, 1991b, Foley 1986, Foley and Olson 1985, 1997, Heine et al 1991, Heine 1993, Lord 1982, 1993, Seiler 1986). The most common processes of grammaticalization within serial verb constructions are cases in which a verb becomes an adposition, a valence operator (i.e. causative, applicative, passive), a verbal classifier or a grammatical marker of tense, aspect, mood, or direction. These and other paths of grammaticalization have occurred in Olutec and will be discussed next.

3. Causative and Passive

The agentive verbal root yak, which means 'distribute', 'offer', 'give away', 'let', is one of the high-frequency serialized verbs. It has grammaticalized as a valence increaser (causative) and a valence reducer (passive.) Both comparative and cross-linguistic data suggest that yak grammaticalized first as a causative marker and later on as a passive marker.

The verbal root yak is ambitransitive or labile (Dixon 1994:18), i.e. it may appear in transitive and intransitive constructions without derivation. The clause in (19a) is intransitive. It includes a semantic agent as its only core argument signaled by the absolutive proclitic on the verb. The clause in (19b) is transitive. The agent NP preceding the verb cross-references the ergative proclitic on the verb, whereas the theme NP which follows the verb appears unflagged (without an adposition.)

- (19) a. miyakamü
 mi= yak -am
 B2 (ABS)=offer-IRRI
 'Are you going to give?' {aand/208}

- b. jama:k tüko:te:ku ?iyakpek ?ampanü:jü
 jamaj=k tük -ko:te:ku ?i= yak -pe =k
 that =AN house-owner A3(ERG)=offer-INCI.T=AN
- ?an+pa -nü:
 burning-water
 'The owner of the house is offering hard liquor.'
 {olu3/93}

The verb yak may be the matrix verb of subordinate complex clauses. In this type of clause, yak is marked as a finite verb whereas the verb in second position appears in the nominalized form. The subject of the second verb, which is coreferential with the object of the matrix verb, is left unmarked. As an illustration consider (20).

- (20) taxka?yaki?k ?espa? pi:na?k
 tax= ka:=yak -i -?k ?etz -pa+?
 C1 (LOCAL)=NEG=offer-INCD-INV.LOCAL dance-NF
- pi:nak
 a little
 'Won't you let me dance a little?' {diab2/101}

3.1. Two Types of Morphological Causatives

One of the ways that the verb yak has grammaticalized is as a morphological causative marker. Languages of both branches of the Mixe-Zoquean family include some development of the morpheme *yak as a causative marker. For this reason Kaufman (1963) and Wichmann (1993b) have reconstructed *yak-

as a causative prefix for Proto-Mixe-Zoque. In Olutec, yak- derives transitive verbs from intransitive ones. The transitive counterpart includes an extra "causer" which brings about the situation or event portrayed by the intransitive verb. For instance, the intransitive verb ?o:k 'die', (21a), when causativized, results in the transitive verb yak-?o:k 'kill', (21b).

- (21) a. nakxek ?itükaw ?i?o:ki
 na?kxej=k ?i= tükaw ?i= ?o:k-i
 when =AN A3(PSR)=father A3(ABS)=die -COMD
 'When his father died.' {rp3/198}
- b. na:xek xyak?o:ki je?k ?owanakü
 na?kxej=k tax= yak- ?o:k-i je? =k ?owa -nak
 when =AN C1(ERG)=CAUS-die-COMD that=AN parrot-DIM
 'That is when I killed that little parrot.'
 {abeja/5}

Morphological causatives, which are very productive, are reanalyzed nuclear serial verb constructions. The first verb of the serial construction is yak, glossed as 'CAUS'. The construction yak+V developed in the context of "cause-effect" serialization also known as "different subject serialization". The O of the causative verb yak is coreferential with the S of the second verb. The two sequential verbs are ordered according to the direction of causation, i.e. the sequence follows iconic principles since the causative event occurs first and the end-result of the

action follows.² Additional examples of morphological causatives in which the second verb is an intransitive change-of-state verb are given in (22).

- (22) a. yakʔutzü minkuxtaʔt
yak- ʔutz-ü min= kuxtat
 CAUS-fill-IMPR A2(PSR)=sack
 'Fill your sack!' {olu4/117}
- b. miyaktzüʔkiʔa:nüpaʔ
 mi= yak- tzüʔk+ʔi:yʔ-anüpa =jaʔ
 B2(ABS)=CAUS-be afraid -INV+IRRI=3AN
 'He is going to scare you.' {compa/79}
- c. ta miyakpotpe yaj tüpxi
 ta min= yak- pot -pe yaʔaj tüpx+i
 COND A2(ERG)=CAUS-break-INCI.T this rope
 'If you break the rope.' {koya/81}
- d. tyakxejejtiʔ
 ta= yak- xejej-ti:yʔ-i
 C3(ERG)=CAUS-moan -ITER -COMD
 'He made her moan.' {burdel/102}
- e. taxyakyek:kaʔneʔk
 tax= yak- ye:k-aʔn -ek
 C1(LOCAL)=CAUS-grow-IRR-INV.LOCAL
 '(I want) you to make me grow.' {koya/16}
- f. taka:yakmajüpaʔ
 ta= ka:=yak- ma:jʔ-ü -pa =jaʔ
 B1(ABS)=NEG=CAUS-sleep-INV-INCI.I=3AN
 'He doesn't let me sleep.' {piojo/85}

Morphological causatives occur not only with intransitive change-of-state verbs but also with intransitive change-of-location ones. In the following examples the second verb conveys the direction of motion of the theme of the first verb.

- (23) a. tyakpetame:t yaʔaj ta:najti
 tan= yak-pet -am -e:t yaʔaj ta:najti
 A1(ERG)=CAUS-ascend-IRRI-PL.SAP this basket
 'We are going to lift the basket.' {viaj2/129}
- b. taʔna chi:nu xyakpitzümi
 taʔna chi:nu tax= yak-pitzüm-i
 a lot honey C1(ERG)=CAUS-exit -COMD
 'I used to extract a lot of honey.' {abeja/25}
- c. jeʔ ʔu:raxü?k jeʔk majawü tyake:ki ʔitukxi
 jeʔ ʔu:ra=xü=k jeʔ =k majaw
 that hour =EV=AN that=AN woman

 ta= yak-ke:k?-i ʔi= tukxi
 C3(ERG)=CAUS-move -COMD A3(PSR)=underwear
 'At that time that woman took off her underwear.'
 {burdel/91}
- d. ʔixiyi taxyakaʔe:tüʔs jeʔ kuxtaʔt
 ʔix+ʔi:yʔ-i tax= yak-kaʔ -e -:t -ütz
 begin-COMD C1(ERG)=CAUS-descend-INCD-PL.SAP-EXCL

 jeʔ kuxtat
 that sack
 'We began to unload the sacks.' {olu28/529}
- e. porke ta mika:yaknükxüp kujumikü
 porke ta mi= ka:=yak-nükx-ü -pa
 because COND B2(ABS)=NEG=CAUS-go -INV-INCI.I

 kujum+ik
 sickness
 'Because otherwise the sickness is going to take
 you away.' {lm4/103}
- f. yakmiʔn miwiniyaʔn
yak-mi:n?-ü min= wini:yʔ+an
 CAUS-come -IMPR A2(PSR)=thought
 'Bring your thoughts!' {lm1/76}

- g. jeʔ ʔu:ra ʔixiʔk tyaknaxküxi küpi
 jeʔ ʔu:ra ʔix+ʔi:yʔ-i =k
 that hour begin -COMD=AN
- ta= yak-nax -küx-i küpi
 C3(ERG)=CAUS-cross-PL3-INCD firewood
 'At that time they began to carry the firewood.'
 {diabl/102}

Besides non-agentive verbs, the morpheme yak also causativizes the intransitive version of agentive ambitransitive verbs, i.e., verbs that occur in transitive or intransitive constructions without derivation and include an agent in their argument structure. Examples of these types of verbs are kay 'eat', ʔu:k 'drink', ʔetz 'dance'. Agentive verbs are inflected as transitive when both the agent and the theme are core arguments of the clause, as in (24a-c). Among the morphological features which differentiate transitive from intransitive verbs are the pronominal proclitics and the aspect markers for incomplete. The agent of transitive verbs is signaled by the ergative proclitic, as in (24a-c). The incomplete marker -pe is suffixed to transitive verbs occurring in independent clauses, as in (24a-b).

- (24) a. tzuʔchinü:jü ʔü:s tankaype
 tzuʔchi-nü: ʔü:tz tan= kay-pe
 meat -water I A1(ERG)=eat-INCI.T
 'I eat meat soup.' {rspf2/545}

- b. mü:t minka:ʔu:kpe minpo:poʔnü:jü
 mü:t min= ka:=ʔu:k -pe min= po:poʔ-nü:
 and A2(ERG)=NEG=drink-INCI.T A2(PSR)=white -water
 'And don't you drink your milk?' {rspf2/578}
- c. ku:mwya taʔesküxi
 ku:mwya ta= ʔetz -küx-i
 cumbia C3(ERG)=dance-PL3-INCD
 'They are dancing cumbia.' {vg/652}

Ambitransitive agentive verbs are inflected as intransitive when the agent is the only core argument of the clause. The semantic theme may be left unspecified, as in (25a-c), or may be incorporated, as in (26a-c).³ There are two morphological clues indicating that the verbs in the examples (25) and (26) are intransitive. First, the semantic agent is marked by the absolutive proclitic on the verb. Second, the incompletive marker for intransitives, the suffix -pa, follows the verb in independent clauses, as in (25a-b) and (26).

- (25) Unspecified Theme
- a. porke taka:kaypa:t
 porke ta= ka:=kay-pa -:t
 because B1(ABS)=NEG=eat-INCI.I-PL.SAP
 'Because we don't eat.' {rs1/53}
- b. miʔu:kpa
mi= ʔu:k -pa
 B2(ABS)=drink-INCI.I
 'You are drinking.' {rp3/179}

- c. ?o: jamaxü jayka?k tiwixü ?i?etze
 ?o: jamaj=xü jaykak tüw+ik=xü
 EXCLAM that =EV people hard =EV

?i= ?etz -e
 A3(ABS)=dance-INCD
 'Those people were dancing very hard.' {diab2/74}

(26)

- Incorporated Theme
 a. ?a:nimakaypak je? mu:xi
 ø= ?a:nima- kay-pa =k je? mu:xi
 B3(ABS)=dead_person-eat-INCI.I=AN that bird
 'That bird is cadaver-eating.' {rsch2/347}

- b. minkafet?u:ka?n tzu:p
 min= kafet- ?u:k -a?n tzu:+pi
 A2(ABS)=coffee-drink-IRR night
 'You are going to coffee-drink at night.'
 {C11b/11/20}

- c. ta?utüp ?ü:tz ta?am?etze
 ta= ?ut -ü -pa ?ü:tz
 B1(ABS)=like-INV-INCI.I I

tan= ?am- ?etz -e
 A1(ABS)=huapango-dance-INCD
 'I like to huapango-dance.' {C10/6/1}

Thus, there are three types of clauses formed with
 ambitransitive agentive verbs: a) transitives with both
 agent and theme functioning as core arguments, b)
 intransitives without a theme, and c) intransitives with an
 incorporated theme.

Transitive verbs cannot take yak-. The causative prefix
 may only occur with intransitive verbs without a theme or
 with an incorporated theme. The resulting causativized verb
 includes two core arguments: a causer and a causee (agent of

the intransitive verb.) In the causativized verbs in (27), the theme of the second verb is left unspecified.

- (27) a. tyakayüwa?k tu?k jaytzü?una?k
 ta= yak- kay-ü -w =ak tuk jaytzü? -?unak
 B1(ABS)=CAUS-eat-INV-COMI=AN one old_lady-DIM
 'The old lady fed me.' {olu28/5}
- b. mü:tak xak?u:ka?ne:t
 mü:t=ak tax= yak- ?u:k -a?n -e:t
 and =AN C1(ERG)=CAUS-drink-IRR-PL.SAP
 'And we are going to give him to drink.'
 {diab1/33}
- c. pi:nakxükü tyak?etzi
 pi:nak =xü=k ta= yak- ?etz -i
 a_little=EV=AN C3(ERG)=CAUS-dance-COMD
 'He made him dance a little.' {diab2/90}
- d. je? ?u:raxü?k tyakapxküxi ?i?awo?k
 je? ?u:ra=xü=k ta= yak- kapx-küx-i
 that hour =EV=AN C3(ERG)=CAUS-talk-PL3-COMD
 ?i= ?awok
 A3(PSR)=offspring
 'At that time he talked to his sons.' {desob/36}
- e. ?i?unakuna?k masak tyakya?xi
 ?i= ?unak -?unak mas =ak
 A3(PSR)=offspring-DIM more=AN
 ta= yak- ya:x?-i
 C3(ERG)=CAUS-shout-INCD
 'She only makes her kid cry.' {olu2/115}
- f. je?k ta?jitikajü tayakpiyü?küküpa?
 je? =k ta?jitik-?aj
 that=AN big -NMZR
 ta= yak- piyü?k-küx-ü -pa =ja?
 B1(ABS)=CAUS-run -PL3-INV-INCI.I=3AN
 'The big ones used to chase me.' {koya/22}

The causative verbs in the following examples include three semantic participants: the causer, the causee (agent of the second verb), and the theme of the second verb. Note, however, that only the causer and the causee are core arguments. The theme of the second verb is not a core argument since it appears incorporated (See discussion in Chapter 9.)

- (28) a. tyaknü:ʔu:ki tampa:kaʔx
 ta= yak- nü:- ʔu:k -i tan= pa:kax
 C3(ERG)=CAUS-water-drink-INCD A1(PSR)=cattle
 'He makes my cows drink water.' {mil/309}
- b. mü:tak ʔiposi:yopxüʔk tyakafetʔu:ki
 mü:t=ak ʔi= posi:yo-pi =xü=k
 and =AN A3(PSR)=cup -LOC=EV=AN
 ta= yak- kafet- ʔu:k -i
 C3(ERG)=CAUS-coffee-drink-INCD
 'and then she makes him drink coffee from the cup.' {rsch2/87}
- c. ʔasta tanyakxükayuk yaʔaj majaw
 ʔasta tan= yak- xük- kay-u =k yaʔaj majaw
 even A1(ERG)=CAUS-beans-eat-COMI=AN this woman
 'I even made this woman eat beans.' {DICT}
- d. minyaknü:naxpek le:ncho
 min= yak- nü:- nax -pe =k le:ncho
 A2(ERG)=CAUS-water-cross-INCI.T=AN Lencho
 'You are making Lencho carry the water.' {DICT}

Olutec has a second causative marker, the prefix ta:k-, whose origin is not completely transparent. This prefix could be the result of the combination of the instrumental applicative toj- < PMZ *to occurring before the causative

yak-, i.e. to+yak > ta:k. The causative marker ta:k- derives ditransitive verbs from monotransitive verbs. That is, verb stems with the form ta:k-V require three core arguments: the causer, the causee (agent of the derived verb), and the theme of the derived verb. The difference between yak-V and ta:k-V can be clearly seen when comparing the same verb root under the two types of causative formations. For instance, the verbal roots ʔu:k 'drink' and kay 'eat' co-occurring with the causative yak- in (27a-b) and (28a-c) form monotransitive verb stems. The only two core arguments of these clauses are the causer and causee (agent of the causativized verb.) The theme of the causativized verb is unspecified or appears incorporated. In contrast, ʔu:k and kay, co-occurring with the causative ta:k-, form ditransitive verb stems, as in (29a-c). The argument structure of this kind of complex verb includes a causer, a causee, and a theme of the causativized verb. The causee (agent of the causativized verb) is the primary object of the clause, i.e., it is the participant cross-referenced by the absolutive on the verb in the inverse construction, as in (29c).

- (29) a. minta:ku:kama? minpakikpa? nü:jü
 min= ta:k-?u:k -am =ja? min= pakikpa? nü:
 A2(ERG)=CAUS-drink-IRRI=3AN A2(PSR)=cold water
 'You are going to make him drink your cold water.'
 {rss10/23}
- b. mü:t je?k minta:kaype ko?ke
 mü:t je? =k min= ta:k-kay-pe ko?ke
 and that=AN A2(ERG)=CAUS-eat-INCI.T fish
 '[...] and feed him with fish.' (Lit. 'You make
 him eat fish.') {pesca/235}
- c. ya?k tanmü:ta?aw tata:kayüw tzana?y
 ya?aj=ak tan= mü:+ta?aw
 this =AN A1(PSR)=neighbor

 ta= ta:k-kay-ü -w tzanay
 B1(ABS)=CAUS-eat-INV-COMI snake
 'My neighbor gave me snake to eat.' {rs4/226}

Additional examples with different agentive verb roots
 causativized by ta:k- follow.

- (30) a. taxta:k?e:pam jumü minma?ja?nü
 tax= ta:k-?e:p-am jumü min= ma:j?-a?n
 C1(LOCAL)=CAUS-see -IRRI where A2(ABS)=sleep-IRRD
 'I will show you where are you going to sleep.'
 {olu28/124}
- b. ?imajaw tata:kjuyi tzoyü
 ?i= majaw ta= ta:k-juy-i tzoy
 A3(PSR)=woman C3(ERG)=CAUS-buy-INCD medicine
 'He sent his wife to buy a remedy.' {comel/121}
- c. tanta:kmü:tiju ja? na:xü
 tan= ta:k-mü:+tij-u ja? na:x
 A1(ERG)=CAUS-keep -COMI DEF earth
 'I left him the land.' {DICT}

- d. mü:tak tantzü? tanta:kpü?kxiy jajü pa?aknü:nü
 mü:t=ak tan= tzü? tan=
 and =AN A1(PSR)=mother A1(ABS)=

ta:k-pü?kx -i -y ja? pa?ak-nü:nü
 CAUS-make_tortilla-COMD-INVD.C DEF sweet-tortilla
 'And my mother made me make sweet tortillas.'
 {C9/61/554}

The causative ta:k- may derive transitive verbs which are themselves the result of causative derivation. For instance, the transitive verb yak-ʔo:k 'to kill' is the morphological causative of the verb ʔo:k 'die'. The complex verb ta:k-yak-ʔo:k includes three core arguments, the causer, the causee (agent-causer of the derived verb), and the theme (causee of the second verb), as in (31).

- (31) tanta:kyakʔo:kuk sa:ra ʔi:tzümü
 tan= ta:k-yak- ʔo:k-u =k sa:ra ʔi:tzümü
 A1(ERG)=CAUS-CAUS-die -COMI=AN Sara pig
 'I made Sara kill the pig.'

3.2 The Reanalysis of yak as a Passive

The morpheme yak has developed a passive function in Olutec and other members of the Mixean branch of the Mixe-Zoquean family (Cf. Hoogshagen and Halloran-Hoogshagen (1993) for Coatlán Mixe, and Lyon (1980) for Tlahuiltoltepec Mixe.)⁴ Thus, a transitive verb prefixed by the passive yak-

results in an intransitive verb whose only core argument, the semantic theme, is marked by the absolutive proclitic on the verb.

The two examples in (32) illustrate the active vs. passive alternation with the verb kay 'eat'. The clause in (32a) is transitive-active. The agent cross-references the ergative proclitic and the theme appears as an unflagged NP. The verb is suffixed by -pe, incompletive for transitives. In contrast, (32b) is a passive construction. Olutec passives are agentless, i.e., the agent cannot be overtly expressed within the clause. The theme of passives is cross-referenced by the absolutive proclitic on the verb. The presence of the incompletive suffix -pa, instead of -pe, is additional evidence that the prefix yak- detransitivizes former transitive verbs. Recall that -pa attaches to intransitive verbs only.

- (32) a. Active
 jeʔk ʔimú:te:ku ʔikaype xükü
 jeʔ =k ʔi= mü:+te:ku ʔi= kay-pe xük
 that=AN A3(PSR)=owner A3(ERG)=eat-INCI.T beans
 'Its master is eating beans.' {aand/61}
- b. Passive
 ʔika:wini:pek ta yakaypa
 ʔi= ka:=win+ʔi:yʔ-pe =k ta
 A3(ERG)=NEG=know -INCI.T=AN COND
- ø= yak- kay-pa
 B3(ABS)=PASS-eat-INCI.I
 'He doesn't know if that is edible.' {olu2/11}

The use of yak as a verb root meaning 'offer' and as a passive marker within the same verb stem is illustrated in (33).

- (33) pero jumü ?iyakyaka?n na:xü
 pero jumü ?i= yak- yak -a?n na:x
 but where A3(ABS)=PASS-offer-IRRD land
 'But where is land going to be given away?'
 {C24/34/266}

Both underived and derived transitive verbs may be passivized by yak-. The following examples illustrate passive formations of simple transitive verb roots.

- (34) a. miyakjampakoj
 mi= yak- jan-pa =koj
 B2(ABS)=PASS-lie-INCI.I=just
 'You are just being deceived.' {pesca/229}
- b. na:xej tyakepe
 na?kxej tan= yak- kep -e
 when A1(ABS)=PASS-look_for-INC D
 'when I am being looked for [...]' {viaj2/55}
- c. porke taka?utüp tyak?e:pe
 porke ta= ka:=?ut -ü -pa
 because B1(ABS)=NEG=like-INV-INCI.I

 tan= yak- ?e:p-e
 A1(ABS)=PASS-see -INC D
 'I don't like to be seen.' {hijomez/17-8}
- d. yampa? miyakmo?e
 yampa? min= yak- mo:y?-e
 this_big A2(ABS)=PASS-give -INC D
 'You are being given this much.' {lm3/622}

- e. tu?k ko:wrena?k miyaktzo?ka?n
 tuk ko:wre-nak min= yak- tzo:k?-a?n
 one coin -DIM A2 (ABS)=PASS-pay -IRRD
 'You are going to be paid a little coin.' {rp2/86}
- f. pu:xtükpi yaktuna:mxü mi:xa
 pu:x+tük-pi ø= yak- tun-am =xü mi:xa
 church -LOC B3 (ABS)=PASS-do -IRRI=EV mass
 'Mass is going to be celebrated in the church.'
 {aandb/241}
- g. jumük pre:so ?iyaktu:ti
 jumü =k pre:so ?i= yak- tu:t?-i
 where=AN prisoner A3 (ABS)=PASS-put -COMD
 'Where the prisoners were put.' {id3/207}
- h. jumü nü:nü ?iyakpü?kxi
 jumü nü:r ?i= yak- pü?kx -i
 where tortilla A3 (ABS)=PASS-make_tortilla-INCD
 '[...] where the tortillas were prepared.'
 {rp3/901}
- i. taka:yakwopu ?ü:tz
 ta= ka:=yak- wop-u ?ü:tz
 B1 (ABS)=NEG=PASS-hit-COMI I
 'I wasn't hit.' {rp2/24}

The examples in (35) are cases of passives of complex verb stems formed by an incorporated noun and a verb root.

- (35) a. yaktzo?kakayu ja?
 ø= yak- tzo?ka- kay-u ja?
 B3 (ABS)=PASS-male_witch-eat-COMI 3AN
 'He was bewitched.' {rp3/824}
- b. jata ?iyak?ixko:kopü?kxi
 jata ?i= yak- ?üxko:ko-pü?kx-i
 right_away A3 (ABS)=PASS-back -pat -COMD
 'He was immediately patted on his back.' {rs3/45}

Passive formations based on complex verb stems formed by an applicative and a verb root are illustrated in (36a-c). The

passivization of a complex verb stem formed by an applicative, a body-part lexical prefix, and a verb root is illustrated in (36d).

- (36) a. ta yakmü:nükxnüwa? ja?
 ta ø= yak- mü:- nükx-nü -w -a?
 COND B3(ABS)=PASS-ASSOC1-go -already-COMI-PERF
 ja?
 3AN
 '[Who knows] if he has already been taken along.'
 {aandb/239}
- b. mü: je? yaktojkü:tam
 mü:t je? ø= yak- toj- kü:t -am
 with that B3(ABS)=PASS-INSTR-grind-IRRI
 'It is going to be ground with it.' {mi2/148}
- c. je?je? yaktomokaypa
 je? =je? ø= yak- toj+mü:-kay-pa
 that=CLEFT B3(ABS)=PASS-ASSOC2- eat-INCI.I
 'It is going to be eaten with it.' {mi2/158}
- d. je? chu:chu?aj yaktojni:xi?kxu nü:jü
 je? chu:chu+?aj
 that child
 ø= yak- toj- ni:- xi?kx -u nü:
 B3(ABS)=PASS-INSTR-BODY-sprinkle-COMI water
 'That child was sprinkled with water.' {rschl/373}

The passivization of nuclear serial verb constructions is illustrated in (37). Note that the verbal stem in (37b) includes a body-part lexical prefix occurring between the passive prefix and the sequence of serial verbs.

- (37) a. ?iyakpitkotik jem
 $\text{?i= yak- pit -kot -i =k je?+mü}$
 A3 (ABS)=PASS-wrap-together-COMD=AN there
 'He was hugged there.' {rs3/46}
- b. $\text{me:jorak ?iyakni:wopkitawnej}$
 me:jor =ak
 instead=AN
- $\text{?i= yak- ni:- wop-kitaw-nü -i -j}$
 A3 (ABS)=PASS-BODY-hit-roll -already-INCD-INVD.I
 'Instead of that, he was knocked to the ground and
 pushed around.' {olu4/273}

Morphological causative verb stems of the two types illustrated above (§3.1) cannot be passivized. Instead, stems which include the causatives ta:k- and yak- may occur in an impersonal construction (non-promotional passive) to convey the meaning associated with passives. In this construction the causative is prefixed by the indefinite agent marker ja-, the absolutive cross-references the theme, and the verb is suffixed by the inverse since the theme is, by definition, more topical than the indefinite agent.

- (38) a. $\text{jayak?o:küwak tu?k yo?ojwa je:p tükpi}$
 $\text{ø= ja- yak- ?o:k-ü -w =ak}$
 B3 (ABS)=INDEF_A=CAUS-die -INV-COMI=AN
- $\text{tuk yo?jwa je? -pi tük -pi}$
 one man that-LOC house-LOC
 'Somebody killed a man there, in the house.'
 {rp2/208}
- b. tajata:kmotowüw
 $\text{ta= ja- ta:k-motow -ü -w}$
 B1 (ABS)=INDEF_A=CAUS-listen-INV-COMI
 'Somebody made me listen to it.'

4. Motion Serialization

A set of serial verb constructions involving intransitive motion verbs, such as mi:nʔ 'come', nükx 'go', pet 'ascend', kaʔ 'descend', have been the source from which two new grammatical categories have developed in Olutec: 1) associated motion, and 2) directionals. Both developments are present in other Mixe-Zoquean languages (see, for example, Clark 1983 for Sayultec.) The process of grammaticalization of motion verbs into directionals has been documented in other Mesoamerican languages, especially in languages of the Mayan family (Craig 1993, England 1976, Haviland 1993, Zavala 1993, 1994 inter alia.)

4.1 Associated Motion

The category of associated motion is understood as the formal means for conveying that an action or state denoted by a verb occurs at the same time as a motion event. This category is coded by inflectional morphemes in a wide variety of languages of the world. Among these are Atsugewi, Hausa and several languages of Australia (Cf. Koch 1984,

Talmy 1985, Wilkins 1991 and references cited therein.) The term 'associated motion' was first used by Koch (1984) and is widely known in Australian linguistics to refer to cases in which "a main verb event is happening against the ground of a motion event" (Wilkins, 1991:212.)

The Olutec "associated motion construction" is realized as a serial verb construction with the shape V1-tak-V2 where V1 is the main verb of the clause, and V2 is a member of a paradigm of motion verbs. The two verbs are linked by the suffix -tak, glossed as "linker".⁵ Associated motion is the only construction where this suffix appears. The construction V1-tak-V2 portrays a complex event in which an action or state denoted by the first verb happens throughout the duration of the motion event conveyed by a second verb. Two examples are given in (39). In (39a), the S of the intransitive verb piyü?k 'run' is coreferential with the S of the motion verb pitzüm 'exit'. In (39b), the A of the transitive verb ju?k 'smoke' is coreferential with the S of the motion verb mi:n? 'come.'

- (39) a. piyü?ktakpitzümü ja?
 ∅= piyü?k-tak -pitzüm-u ja?
 B3(ABS)=run -LNKR-exit -COMI 3AN
 'He went out running.' {id2/175}

- b. siga:rruk ?iju?ktakminu
 siga:rru =k ?i= ju?k -tak -mi:n?-u
 cigarette=AN A3(ERG)=smoke-LNKR-come -COMI
 'He came smoking a cigarette.' {rschl/9}

Both verbs share the inflectional morphology that conveys person, aspect, modality, voice and negation. The prefixes and proclitics precede the first verb whereas the suffixes and enclitics follow the second verb. Some examples follow:

- (40) a. Inverse, aspect and plural follow V2
 ja?aj nü:jü takü:ytaka?anüpa:t nüpün
 ja? nü:
 DEF water

 ta= kü:y?-tak -ka? -an+ü+pa -:t nüpün
 B1 (ABS)=carry-LNKR-descend-INV+IRRI-PL.SAP DUB
 'Who knows where the river is going to take us in its way down.' {rsl/58}
- b. Plural, aspect and evidential follow V2
 ?iwü:ntakwitkuxuxü ni?ixi xu?ni
 ?i= wü:n-tak -wit -kux-u =xü ni?ixi xu?ni
 A3(ERG)=pull-LNKR-walk-PL3-COMI=EV like dog
 'They were walking pulling him around like a dog.'
 {id3/326}
- c. Aspect suffixes and animate enclitic follow V2
 tame?pxtaknükxne:k ?i?una?k
 ta= me?px-tak -nükx-nü -i =k
 C3(ERG)=hold -LNKR-go -already-INCD=AN

 ?i= ?unak
 A3(PSR)=offspring
 'She was already going away holding her son.'
 {rschl/278}
- d. Applicative and aspect follow V2
 tanjayma:takwitaype kata
 tan= jay+ma:j?-tak -wit -ay -pe kata
 A1(ERG)=sleep_out-LNKR-walk-APPL1-INCI.T Cata
 'I am sleeping at Cata's place.'

- e. Negative precedes V1. Imperative follows V2
 kaʔjüyta:ktakwitü tuʔaʔp
 ka:=jüy+ta:kʔ-tak -wit -ü tuʔaw-pi
 NEG=play -LNKR-walk-IMPR road-LOC
 'Don't go around playing in the road!'
 {C11a/24/523}
- f. Person and reciprocal precede V1. Inverse, aspect, evidential, and animate enclitic follow V2
 niyu:ktakwitüwxüʔk jaykaʔk
 ø= ni- yu:k-tak -wit -ü -w =xü=k jaykak
 B3 (ABS)=RECP-hide-LNKR-walk-INV-COMI=EV=AN people
 'The people are going around hiding among themselves.' {C9/95/793}
- g. Person marker and passive precede V1
 jumej püneʔ ʔiyaktzüntakpetanü wepü, nuʔpujem
 jumej pün=jeʔ ʔi= yak- tzüm -tak -pet -aʔn
 how DUB=CLEFT A3 (ABS)=PASS-carry-LNKR-go_up-IRR
 wew+pi nuʔpu -jem
 there buzzard-LOC
 'How is he going to be carried in his way up, on the buzzard?' {rspf2/325}
- h. Person and causative precede V1
 ʔoyamento ʔiyakje:xtaknükxwaʔ
 ʔoyamento ʔi= yak- je:x-tak -nükx-w -aʔ
 now A3 (ERG)=CAUS-drag-LNKR-go -COMI-PERF
 'In this moment he has moved away dragging it.'
 {rspf1/160}

Thus, the associated motion construction is an instance of same subject nuclear serialization within the typology of Foley and Olson. The type and number of core arguments of this construction is determined by the first verb. The intransitive associated motion constructions (39a) and (40d, e) include an intransitive first verb. Examples of

transitive constructions are (39b) and (40a, b, c, h). A passive is shown in (40g) and a reflexive in (40f). The two examples in (41) have non-agentive bivalent verbs functioning as V1.

- (41) a. küʔi:ktaknükxünüpak ʔime:nyu
 ø= küj- ʔi:k -tak-nükx-ü -nü -pa =k
 B3 (ABS)=APPL2-expand-LNKR-go-INV-already-INCI.I=AN
 ʔi= me:nyu
 A3 (PSR)=money
 'He is already having more money.' (Lit. The money goes and expands on him.) {RSAA}
- b. takumtakminünüp
 ta= kum -tak -mi:nʔ-ü -nü -pa
 B1 (ABS)=get_worms-LNKR-come -INV-already-INCI.I
 'I am coming and I have parasites with me.' {DICT}

The set of motion verbs which can appear as V2 is given in (42). This paradigm contains three subsets: I) verbs that encode motion and deixis, II) verbs that encode motion and direction/orientation without specifying deixis, and III) verbs that encode motion and manner. Note that most of the verbs in the paradigm do not convey manner (eleven out of thirteen.) My corpus does not have associated motion constructions in which the second verb of the complex predicate codes both manner and motion such as: ʔe:k 'limp', katat+kay 'walk swaying', waʔk 'walk quickly', weʔkek 'walk bow-legged', keʔjej 'walk bow-legged', wenkej 'walk

crooked', we:tz 'crawl', xe?kx 'walk crooked', yo?y 'crawl',
napap 'fly', yun 'swim', te:kej+ti:y? 'walk crooked'.

(42) Set of Associated Motion Grammaticalized Verbs

I. Motion and deixis

- a. mi:n? 'come'
 b. nükx 'go'
 c. ya?t 'arrive here'
 d. jamat 'arrive there'

II. Motion and orientation

- e. tük+?i:y? 'enter'
 f. pitzüm 'exit'
 g. pet 'ascend'
 h. ka? 'descend'
 i. yü?k 'leave, be born'
 j. nax 'cross'
 k. wimpit 'return'

III. Motion and manner

- l. wit 'go about, walk'
 m. piyü?k 'run'

Associated motion verbs can be attached to simple and complex verb stems. Various examples of derived verbs preceding V2 have been shown above. The verb je:x 'drag' appears derived by a causative in (40h). The verb ?i:k 'expand' is derived by an applicative in (41a). The verb jay+ma:j? 'sleep in the place of somebody else' is formed by jay- 'another's person property' prefixed to the verb root ma:j? 'sleep', in (40d). The examples in (43) illustrate associated motion constructions where the complex V1

includes lexical prefixes, directionals, incorporated nouns and serialized verbs, in addition to the main verb.

- (43) a. V1: Lexical prefix + V
 ?iyuk?e:ptaknükxi jama:k yojwa
 ?i= yuk-?e:p-tak -nükx-i jamaj=k yo?ojwa
 A3(ABS)=UP- see -LNKR-go -INCD that =AN man
 'That man is going looking upwards,' {miel/18}
- b. V1: V + directional
 tantzümpettakwitu chu:chuna?k
 tan= tzüm -pet -tak -wit -u chu:chu-nak
 A1(ERG)=carry-DIR:up-LNKR-walk-COMI child -DIM
 'I was going around carrying the baby.'
- c. V1: Lexical prefix + V + directional
 ko:jaypetaknükxü
 ko:-ja:y?-pet -tak -nükx-ü
 BEN-write-DIR:UP-LNKR-go -IMPR
 'Go and register it!' {C11a/60/779}
- d. V1: N + V
 ?ikamatuntakwiti
 ?i= kama- tun-tak -wit -i
 A3(ABS)=corn field-do -LNKR-walk around-INCD
 'He was walking around planting corn here and there.' {olu9/65}
- e. V1: V + V
 jamaj nü:jü nija?mej tawo:kotakmi?n
 jamaj nü: nija?mej
 that water all
 ta= wo:k -kot -tak -mi:n?-i
 C3(ERG)=scratch-be together-LNKR-come -INCD
 'That water comes gathering everything up.' {DICT}

Discussing the associated motion construction in Mparnte Arrernte, Wilkins (1991:251) has argued that the motion event is backgrounded while the event conveyed by the

main verb is foregrounded. The function of the associated motion verb is to locate the main event within the flow of space in a similar way that tense does with respect to time in languages with grammaticalized tense. Two facts support this analysis for Olutec. First, in order to focus or elaborate on the motion event, Olutec speakers either subsequently repeat the motion verb that was included in the associated motion construction; or they use another motion verb which is semantically compatible with the associated motion verb. The following examples illustrate this point. The presence of three tokens of the verb nükx 'go' in the paragraph given in (44a-c) makes evident that the motion event is foregrounded. The verbal root nükx occurs as simple verb in (44b), and as main verb and associated motion verb in (44c).

(44) a. '[...] The bees began abandoning me.'

b. küjtu?k küjtukak ?inükxi
 küj- tuk küj- tuk=ak ?i= nükx-i
 each-one each-one=AN A3(ABS)=go -COMD
 'They went away one by one.'

c. ?inükxtaknükxkükxno küjtu?k
 ?i= nükx-tak -nükx-kükx-nü -i küj- tuk
 A3(ABS)=go -LNKR-go -PL3-already-INCD each-one
 'They already were going away one by one.'
 {abeja/69-71}

A similar case with a different motion verb is shown in (45).

- (45) a. jaʔk tuʔk yoʔojwa minu mü:t ʔichale:ko
 jaʔ=k tuk yoʔjwa ø= mi:nʔ-u mü:t
 DEF=AN one man B3=come -COMI with
 ʔi= chale:ko
 A3(PSR)=vest
 'A man came wearing a vest.'
- b. siga:rruk ʔijuʔktakminu
 siga:rru =k ʔi= juʔk -tak -mi:nʔ-u
 cigarette=AN A3(ERG)=smoke-LNKR-come -COMI
 'He came smoking a cigarette.' {rschl/8-9}

Another common pattern is attested when a more specific motion verb in an independent clause precedes or follows the associated motion construction. The independent motion verb adds information about orientation, deixis or manner of motion. For example, the motion verb nax 'cross' in (46a) adds information about orientation that is not present in the associated motion verb wit 'walk' in (46b).

- (46) a. taxka:jaʔe:pa minnaxaʔn
 tax= ka:=ja= ʔe:p-pa min= nax -aʔn
 C1(LOCAL)=NEG=MIRAT=see -INCI.I A2(ABS)=cross-IRRD
 'I don't see you anymore passing by
- b. mixto:ktakwitaʔnü yowamo:kü
 mix= to:k-tak -wit -aʔn yowa -mo:k
 C2(ERG)=sell-LNKR-walk-IRRD tender-corn
going around selling ears of corn.' {olu4/376-7}

The associated motion construction in (47c) is preceded and followed by clauses that include the verb nükx 'go away' as a simple verb. The verb nükx adds deictic information absent in the associated motion verb wit.

- (47) a. [... when his wife died, he begin to cry, he cried all the time]
- b. nükxpakü tümpaʔaj jüypa jaʔ
 ø= nükx-pa =k tü:nʔ -pa+ʔ
 B3 (ABS)=go -INCI.I=AN defecate-NF
- ø= jü:yʔ-pa jaʔ
 B3 (ABS)=cry -INCI.I 3AN
 'He used to cry on his way to defecate.'
- c. mü:t jaʔmexükoj ʔijüytakwiti
 mü:t jaʔmej =xü=koj ʔi= jü:yʔ-tak -wit -i
 and like that=EV=just A3 (ABS)=cry -LNKR-walk-COMD
 'And he was just like that, always going around crying.'
- d. jaʔmexükoj ʔinükxi tümpaʔaj jüypa jaʔ
 jaʔmej =xü=koj ʔi= nükx-i
 like that=EV=just A3 (ABS)=go -COMD
- tü:nʔ -pa+ʔ ø= jü:yʔ-pa jaʔ
 defecate-NF B3 (ABS)=cry -INCI.I 3AN
 'And he was always crying even on his way to defecate.' {olu5/24-7}

Similarly, in (48) the verb mi:nʔ 'come' adds deictic information which is not present in the associated motion verb wit.

- (48) to:ktakwitpak ʔimino
 to:k-tak -wit -pa =k ʔi= mi:nʔ-nü -i
 sell-LNKR-walk-INCI.I=AN A3 (ABS)=come-already-INCD
 'He already came selling.' {DICT}

The sequence of clauses in (49) illustrate an associated motion construction with the manner verb wit 'walk around' following another clause with the independent verb waʔk. This verb provides very specific semantic information with respect to the manner in which the walking was performed.

- (49) a. ʔiwaʔktiyi
 ʔi= waʔk -ti:yʔ-i
 A3(ABS)=walk quickly-ITER -INCD
 'He used to walk around quickly.'
- b. ʔikamatuntakwiti
 ʔi= kama -tun-tak -wit -i
 A3(ABS)=corn field-do -LNKR-walk around-INCD
 'He was walking around planting corn here and there.' {olu9/64-5}

The associated motion verb nükx 'go' has developed a second sense that is not directly related to motion. Nükx has grammaticalized as a progressive aspect marker. This is the second piece of evidence that supports the idea that the information about motion is backgrounded in the associated motion construction. The progressive construction is illustrated in (50).

- (50) Grammaticalization of Associated Motion nükx into Progressive
- a. swe:ldo ʔipetaknükxno
 swe:ldo ʔi= pet -tak -nükx-nü -i
 salary A3(ABS)=ascend-LNKR-go -already-INCD
 'The salary is going up already.' {C22/64/17}

- b. ʔikaʔtaknükxno jamaj tuʔk ʔipajaʔm
 ʔi= kaʔ -tak -nükx-nü -i
 A3(ABS)=descend-LNKR-go -already-INCD
- jamaj tuk ʔi= pajam
 that one A3(PSR)=strength
 'One's strength is lessening already.' {viaj2/102}
- c. pe:ro na:kxej tanye:ktaknükxi
 pe:ro naʔkxej tan= ye:k-tak -nükx-i
 but when A1(ABS)=grow-LNKR-go -COMD
 '[...] but when I was growing.' {rp3/19}
- d. jamajampoʔk tükʔ tatuntaknükxi
 jamaj=ʔampoʔ=k tük ta= tun-tak -nükx-i
 that =also =AN house C3(ERG)=do -LNKR-go -COMD
 'They were building that house too.' {const/33}

The change from motion verb to aspectual marker is one of the most common chains of grammaticalization cross-linguistically (Lehmann 1982, Heine et al 1991, Heine 1993, Bybee et al 1994, inter alia.) However, two important facts about the development that has occurred in Olutec should be pointed out. First, there are not many cases reported in the literature where the verb meaning 'go' is the source of the progressive aspect. And second, the associated motion construction has not been discussed as the syntactic source whence aspect markers usually develop.

4.2 Directionals

All the languages of the Mixe-Zoquean family have directional morphemes that may be attached to the verb. Directionals provide information regarding the spatial trajectory or path followed by one of the arguments of the verb, usually the only argument of a monovalent verb, or the theme of a bivalent or trivalent verb. Mixe-Zoquean languages exhibit at least three paradigms of directionals which occupy different slots within the verbal stem and have different origins.

4.2.1 Directional Prefixes

The members of the first paradigm are prefixes which share the same slot with other lexical prefixes (see CH 5, §3). The size of this paradigm varies from one language to the other. However, there are forms that are shared by languages of the two branches of the family. This suggests that the paradigm of directional prefixes is a feature that the daughter languages inherited from Proto-Mixe-Zoque. It is likely that these prefixes grammaticalized from incorporated adverbs. Olutec has two of these prefixes: the morpheme yuk-, reconstructed for PMZ as *yuk 'locational

prefix meaning 'upwards' (Wichmann 1995:518), and the morpheme ko:- which has not been reconstructed functioning as directional for PMZ.⁶ The free morpheme yuk is both an adverb meaning 'upwards, up there, above' and a verbal directional prefix glossed as 'UP'. The examples in (51) illustrate the adverbial use.

- (51) a. jiʔpitej miyakpetam yukmü
 jiʔpitej min= yak- pet -am yuk -mü
 over_there A2(ERG)=CAUS-ascend-IRRI upwards-LOC
 'You are going to lift it upwards.' {rp2/309}
- b. yukpik ʔiʔiti xuʔninaʔk
 yuk -pi =k ʔi= ʔit -i xuʔni-nak
 up there-LOC=AN A3(ABS)=exist-INCD dog -DIM
 'The little dog is up there.' {idl/40}
- c. yukpi ʔikaʔi puʔtzükü
 yuk -pi ʔi= kaʔ -i puʔtzük
 above-LOC A3(ABS)=descend-COMD garbage
 'The garbage falls from above.' {rschl/33}

The examples in (52) and (56) show some of the meanings associated with yuk- when used as a verbal prefix. It indicates that a figure (or a subpart of the figure) follows an ascending path when the event portrayed by the verbal root is performed. The figure for either transitive or intransitive verbs is the argument crossreferencing the absolutive pronominal proclitic, i.e. the "S" of intransitives and the "O" of transitives. The verbs in the examples given in (52) to (54) are intransitive. The "S's"

in (52a-c) are animate entities, while the "S" in (52d) is an inanimate entity.

- (52) a. jaʔk tzu:kü ʔasta yukpi ʔiyukyokxe
 jaʔ=k tzu:k ʔasta yuk -pi
 DEF=AN mouse very up_there-LOC
 ʔi= yuk-yokx-e
 A3(ABS)=UP- jump-INCD
 'The mouse is jumping way up there.' {rsch2/493}
- b. jaʔiyajü yuknapapnūwak jeʔ juʔkü
 ja= ʔiyaj ø= yuk-napap-nū -w =ak jeʔ
 MIRAT=here B3(ABS)=UP- fly -already-COMI=AN that
 juʔk
 owl
 'And look here!, the owl is flying upwards.'
 {rschl/629}
- c. mü:t yukpittituk jeʔ wü:niʔk
 mü:t ø= yuk-pittit-u =k jeʔ wü:nik
 and B3(ABS)=UP- turn -COMI=AN that wasp
 'And the wasps were swarming.' {id2/140}
- d. na:xeʔk ʔixiʔan ʔiyukyome
 naʔkxej=k ʔix+ʔi:yʔ-aʔn ʔi= yuk-yom -e
 when =AN begin -IRRD A3(ABS)=UP- boil-INCD
 'When it (the honey) begins to boil.' {abeja/56}

In the two examples shown in (53), yuk- describes the direction followed by a subpart of the entity coded by the "S" argument. For instance, in (53a) the verb yuk-waʔk does not entail that the person walks and ascends at the same time. The directional indicates that the feet of the participant involved in the action weren't able to move "up". Rather, the presence of yuk- in (53b) does not imply

that the deer moved “upwards” at the same time that it was smelling. The only part of its body that moved “upwards” when it was sniffing was its head.

- (53) a. ka:jajatpa ?iyukwa?ke
 ka:=ja= jat -pa ?i= yuk-wa?k-e
 NEG=MIRAT=be_able-INCI.I A3(ABS)=UP- walk-INCD
 ‘He cannot raise his feet anymore.’ {zopil/166}
- b. mü:tak jamakü jaytzu?u yukxu:kpa ja?
 mü:t=ak jamaj=k jaytzu? ø= yuk-xu:k -pa
 and =AN that =AN deer B3(ABS)=UP- smell-INCI.I
- ja?
 3AN
 ‘And that deer, it was sniffing.’ {olu27/55}

In some of the combinations of yuk-V, the prefix does not specify the path followed by either the figure or a subpart of it. These combinations are semantically non-compositional. The presence of yuk- only implies that the action occurs chaotically, unexpectedly, or causing a lot of noise.

- (54) a. je? ?u:ra ?iyukyopopi jayka?k
 je? ?u:ra ?i= yuk-yopop -i jaykak
 that hour A3(ABS)=UP- get_excited-COMD people
 ‘That is when the people made an uproar.’
 {rp2/229}

- b. jeʔ ʔu:raxüʔk ʔiyukna:wi ʔimajaw
 jeʔ ʔu:ra=xü=k ʔi= yuk-na:w -i
 that hour =EV=AN A3(ABS)=UP- throw-COMD

 ʔi= majaw
 A3(PSR)=woman
 'That's when his wife got surprised.' {C8/11/139}

The directional yuk-, when occurring with transitive verbs that entail motion, indicates that the theme moves in an ascending trajectory when the event specified by the verb root is performed.

- (55) a. kamiyukxaja
 ka:=min= yuk-xaj -a
 NEG=A2(ERG)=UP- open_the_arms-IMPR
 'Don't raise (your hands)!' {rs9/6}
- b. jaʔk ʔipantaloʔn ʔiyukxa:tzu
 jaʔ=k ʔi= pantalon ʔi= yuk-xa:tz-u
 3AN=AN A3(PSR)=trousers A3(ERG)=UP- roll -COMI
 'He rolled up his pants.' {olu28/857}
- c. kaʔjaʔitüp pajam taxyukwotzaʔn machi:ti
 ø= ka:=ja= ʔit- ü -pa pajam
 B3(ABS)=NEG=MIRAT=exist-INV-INCI.I strenght

 tax= yuk-wotz-aʔn machi:ti
 C1(ERG)=UP- pull-IRRDRD machete
 'I do not have the strength to lift the machete.'
 {olu4/367}
- d. jiʔmaj ma:nkukuyü ʔiyuktü:ykükuk paʔko
 rrewe:lde-tük
 jiʔmaj ma:nku-kuy ʔi= yuk-tüy -kük-u =k
 there mango -tree A3(ERG)=UP- hang-PL3-COMI=AN

 paʔko rrewe:lde-tük
 a lot rebel -PL
 'They hung a lot of rebels in the mango tree.'
 {vg/519}

- e. jeʔ ʔu:rak tyukwü:ni ʔitukxi
 jeʔ ʔu:ra=k ta= yuk-wü:n-i ʔi= tukxi
 that hour =AN C3(ERG)=UP- pull-COMD A3(PSR)=pants
 'That's when he put his pants on.' {olu28/854}
- f. tayukna:we pelo:ta
 ta= yuk-na:w -e pelo:ta
 C3(ERG)=UP- throw-INCD ball
 'He is throwing the ball upwards.' {rsch2/620}
- g. tankajayukpükpe tujtujko küʔ yowamo:kü
 tan= ka:=ja= yuk-pük -pe tujtujko küʔ
 A1(ERG)=NEG=MIRAT=UP- grab-INCI.T six hand
 yowa -mo:k
 tender-corn
 'I cannot lift thirty ears of corn anymore.'
 {lm3/343}

Contrary to the previous transitive verbs which entail motion of the theme, the verb ʔe:p 'see' is stative. The directional yuk- attached to this verb does not convey that the theme moves upwards at the time that the viewer is observing the object. Instead, the directional indicates that the gaze of the viewer is directed upwards in order to see the object. Note that the semantic reading of (56) is not "You are going to see the sun moving up", as one would expect if the verb ʔe:p were part of the group of transitive motion verbs shown in (55).

- (56) xüwü miyukʔe:pam yaʔmej
 xüw min= yuk-ʔe:p-am yaʔ+mej
 sun A2(ERG)=UP- see -IRRI like this
 'You are going to look up at the sun in this way.'
 {rspf2/194}

The combination of the prefix ko:- and the suffix -ta:kʔ added to a verb root conveys the directional meaning "downwards". The origin of neither of these two morphemes is clear. The prefix ko:- has more than one function. It appears with verbs adding a benefactive or malefactive sense, as in ko:-chikx [BENEFACTIVE-have] 'take care of somebody'. Ko:- also appears with nouns adding the meaning 'step, half', as in ko:-tükaw [STEP-father] 'stepfather'; or functioning as an augmentative, as in ko:-puʔpu [AUGMENTATIVE-belly] 'potbellied'. Only the benefactive function has been reconstructed for PMZ (Wichmann 1993b.) The directional function of ko:- is also attested in Coatlán Mixe. In this language the meaning 'downwards' is obtained when the stem ko:-V is suffixed by -nax 'cross' (Hoogshagen and Halloran 1993:397). The Olutec morpheme -ta:kʔ also has multiple functions that won't be discussed here. The intransitive verb ta:kʔ 'give birth, sprout' could be the source from where the directional meaning evolved. More evidence supporting this claim will be given below.

Verb stems with the shape ko:-V-ta:kʔ exhibit the directional meaning 'downwards'. The verb root within these stems can be intransitive or transitive. When the verbal

root implies motion, the directional morphemes describe the path or trajectory of the theme, as in the examples (57a-e).

- (57) a. jamaj tüpxina?k ?iko:wosta:kpe
 jamaj tüpx+i-nak ?i= ko:- wotz-ta:k?-pe
 that cord -DIM A3(ERG)=DOWN-pull-DOWN -INCI.T
 'That little cord pulls (the plant) downwards.'
 {olu28/45}
- b. tako:na:wta:ki
 ta= ko:- na:w -ta:k?-i
 C3(ERG)=DOWN-throw-DOWN -COMD
 'He laid (the little pig down on the floor.)'
 {olu3/118}
- c. yam taxko:jupta?ka?n mü:t yaj yu?u?k
 ya?+mü tax= ko:- jup -ta:k?-a?n mü:t
 here C1(LOCAL)=DOWN-tip_over-DOWN -IRRD with

 ya?aj yu?uk
 this pot
 'Here, I will cover you with this pot.' {olu5/170}
- d. mü: yam tanko:wopta?ka?nej
 mü:t ya?+mü tan= ko:- wop-ta:k?-a?n+e+j
 and here A1(ABS)=DOWN-hit-DOWN -INV+IRRD
 'And here it is going to crush me.' {piojo/113}
- e. je? ?u:ra tako:ko?pxta?ka?n
 je? ?u:ra ta= ko:- ko?px-ta:k?-a?n
 that hour C3(ERG)=DOWN-catch-DOWN -IRRD
 'That's when (the cat) is going to catch (the mouse and eat it.)' {rspf2/693}

When the verbal root is a verb of locution or perception, the directional morphemes describe the path followed by the sound or the gaze, as shown in (58a-b).

- (58) a. jumük ?iko:ya:xta?ki
 jumü =k ?i= ko:- ya:x?-ta:k?-i
 where=AN A3(ABS)=DOWN-shout-DOWN -INCD
 '[...] where he was yelling downwards.'
- b. mü:t nüx-i ?ü:s xko:ʔe:pta?ki
 mü:t nüx-i ?ü:tz tax= ko:- ʔe:p-ta:k?-i
 and go -INCD I C1(ERG)=DOWN-see -DOWN -INCD
 '[...] and I am going to direct my gaze downwards
 and see him.' {milagro/50}

4.2.2 Directional Suffixes

The second set of directionals are suffixes whose etymology is not completely clear. The three members of this set are -ta:kʔ 'downwards', -ʔi:yʔ 'inwards' and -tzi:yʔ 'no motion'. This subset could be a remnant of a more elaborated system of either Proto-Mixe or Proto-Mixe-Zoque.

As mentioned above, the suffix -ta:kʔ has several functions. The same morpheme with similar functions is also found in Sayultec (Clark 1983:6-8). The Olutec root ta:kʔ functioning as an intransitive verb with the meaning 'give birth, sprout' is illustrated in (59a). The causativized counterpart yak-ta:kʔ 'give birth to somebody' is illustrated in (59b).

- (59) a. ta:küxpak majawtükü
 ø= ta:kʔ -küx-pa =k majaw-tük
 B3(ABS)=give birth-PL3-INCI.I=AN woman-PL
 'The women are giving birth.' {vg2/369}

- b. ʔiyakta:ku tuʔk pi:se:ru jamaj pa:kaʔx
 ʔi= yak- ta:kʔ -u tuk pi:se:ru jamaj
 A3(ERG)=CAUS-give birth-COMI one calf that
- pa:kax
 cow
 'The cow gave birth to a calf.' {DICT}

The different meanings of -ta:kʔ following various verb roots seem to be lexically determined. An inceptive meaning is obtained with verbs such as kapx 'talk', tun 'do' and tüʔkx 'dawn'

- (60) a. jeʔ ʔu:rak mimü:kapxtaʔkaʔnej
 jeʔ ʔu:ra=k
 that hour =AN
- min mü:- kapx-ta:kʔ -aʔn+e+j
 B2(ABS)=ASSOC1-talk-INCEPT-INV+IRRD
 'That is when he is going to begin talking to you.' {compa/105}
- b. jume:k tu:maʔx ʔituntaʔki na:xe:k ʔijamate tükümü
 jumej=k tu:max ʔi= tun-ta:kʔ -i naʔkxej=k
 how =AN Thomas A3(ABS)=do -INCEPT-INCD when =AN
- ʔi= jamat -e tük -mü
 A3(ABS)=arrive-INCD house-LOC
 '[...] the way Thomas starts doing when he arrives home.' {C19/23/1}
- c. ʔal ʔitüʔkxta:ki ʔitü
 ʔal ʔi= tüʔkx-ta:kʔ -i ʔitü
 at A3(ABS)=dawn -INCEPT-COMD TEMP
 'When it started getting light [...]' {pesca/134}

With verbs such as pitzüm 'exit', taratz 'thunder', and keʔx 'appear', the suffix -ta:kʔ indicates that the action occurred unexpectedly.

- (61) a. mü: jemxü?k ?i+ pitzümta:ki ko?yaj
 mü:t je?+mü=xü=k ?i= pitzüm-ta:k? -i ko?yaj
 and there=EV=AN A3(ABS)=exit-suddenly-COMD devil
 'and the devil appeared suddenly there.'
 {C20/64/16}
- b. na:xexü?k ?i+ winjo:ye tarasta:kpaxü?k
 na?kxej=xü=k ?i= win+jo:y -e
 when =EV=AN B3(ABS)=be_cloudy-INCD

 ø= taratz -ta:k? -pa =xü=k
 B3(ABS)=thunder-suddenly-INCI.I=EV=AN
 'When it becomes cloudy, it thunders suddenly.'
 {C20/91/8}
- c. nija?mej ?ipantalo?n kü:tzü?k, ?al ?ike?xta:kikü
 ni+ja?mej ?i= pantalon kü:tz-ük
 all A3(PSR)=trousers tear -PCP

 ?al ?i= ke?x -ta:k? -i =k
 when A3(ABS)=appear-suddenly-COMD=AN
 'His trousers were completely torn when he
suddenly showed up (in town)' {olul/190}

The specific semantic contribution of -ta:k? when suffixed to verb roots of the following examples is not clear. In some cases the first root is not attested in other contexts, i.e., the verb root can function as part of a well-formed verb only when it is suffixed by -ta:k?, as in (62a-c). The examples (62d-k) illustrate verb stems whose meanings are not predicted by the sum of the meanings of their parts.

- (62) a. ?üj-kü?-ta:k? [?--?] 'complain'
 b. jüy-ta:k? [?--?] 'play'
 c. kowok-ta:k? [?--?] 'knock'
 d. ?ix-ta:k? [see--?] 'know'
 e. jot-kü?-ta:k? [open--?] 'become happy'

- f. xit-kü?-ta:k? [disperse-?-?] 'come to pieces'
 g. yopop-kü?-ta:k? [pile_up-?-?] 'break into pieces'
 h. jo:y-ta:k? [lose-?] 'break'
 i. mü:-tun-ta:k? [ASSOC1-do-?] 'insist, search'
 j. ni:-kipx-ta:k? [BODY-shoot-?] 'point at, aim at'
 k. toj-may-ta:k? [INSTR-count-?] 'receive thanks'

Some sequences with the shape V-ta:k? convey the notion 'downwards' as part of their meaning. In these contexts -ta:k? is a true directional and will be glossed as 'DOWN'. Unlike the examples in (57) and (58), the verb roots in (63) are not prefixed by ko:-, that is, the only morpheme which conveys the meaning 'downwards' in the next examples is the suffix -ta:k?. The verbal roots of the examples (63a-d) are intransitive. The directional refers to the path followed by the only argument of the verb root.

- (63) a. ?al rra:tu ?itzayta:kne xüwü
 ?al rra:tu ?i= tza:y?-ta:k?-nü -i xüw
 at while A3(ABS)=light -DOWN -already-COMD sun
 'a while later the sun was already illuminating.'
 {rspf2/423}
- b. jamaj ?awyo?n napapta:kpa ni?ixi tu?k nu?pu
 jamaj ?awyon ø= napap-ta:k?-pa ni?ixi tuk
 that plane B3(ABS)=fly -DOWN -INCI.I like one

 nu?pu
 vulture
 'That plane flies downwards like a turkey
 vulture.' {DICT}
- c. ni?ta?kü:t
 ni?t-ta:k?-ü -:t
 bend-DOWN -IMPR-PL.SAP
 'Crouch down (all of you)!' {DICT}

- d. taxi:kta:ku taʔe:pe
 ta= xi:k -ta:kʔ-u tan= ʔe:p-e
 B1 (ABS)=be_crooked-DOWN -COMI A1 (ABS)=see -INCD
 'I was bent over looking.' {DICT}

The verbal roots of the examples (64a-c) are transitive. The directional implies that the action is performed with the theme being located at a lower level with respect to the agent, as in (64a). It may also imply that the theme is affected in his lower extremities, as in (64b-c).

- (64) a. tanpi:xuwta:kpe jünü
 tan= piw -xuw -ta:kʔ-pe jün
 A1 (ERG)=pick-blow-DOWN -INCI.T fire
 'I am blowing on the fire.' {DICT}
- b. ʔimü:nikaʔsta:küwxüʔk koʔyaj
 ʔi= mü:- ni- kaʔtz-ta:kʔ-ü -w =xü=k
 A3 (ERG)=ASSOC1-RECP-cut -DOWN -INV-COMI=EV=AN

 koʔyaj
 devil
 'He said that he fought against the devil with a
 machete.' {C20/63/7}
- c. tamü:nipojta:kiyak ʔimajaw
 ta= mü:- ni- poj -ta:kʔ-i -y =ak
 C3 (ERG)=ASSOC1-RECP-kick-DOWN -COMD-INVD.C=AN

 ʔi= majaw
 A3 (PSR)=woman
 'He and his wife fought by kicking each other.'
 {olu9/101}

The second directional morpheme in this set is -ʔi:yʔ 'inside, inwards' glossed as 'INWARDS'. It is possible that this morpheme grammaticalized from an old verb that is not

attested anymore within the existing inventory of Olutec verbal roots. Up to now, I have not found a cognate suffix in any other Mixe-Zoquean language. In Olutec, a suffix with the same formal shape is the derivational inchoative marker, as in majaw-ʔi:yʔ [woman-INCHOATIVE] 'become a woman'.

The directional -ʔi:yʔ may be suffixed to intransitive and transitive verbal roots. Motion intransitive verbs plus -ʔi:yʔ convey actions in which the sole participant of the verb moves from one location to another transpassing a boundary, as in (65a-d). The derived verb in (65d) is the passive of a transitive verb.

- (65) a. yokxi:pak wenta:najem
 ø= yokx-ʔi:yʔ -pa =k wenta:na-jem
 B3(ABS)=jump-INWARDS-INCI.I=AN window -LOC
 '(The cat) jumps in through the window.'
 {aand/103}
- b. yaʔaj tukanakü wep ʔimaʔtzinyej moʔtzojotpi
 yaʔaj tuka -nak wew+pi ʔi= maʔtz-ʔi:yʔ
 this turtle-DIM there A3(ABS)=throw-INWARDS
 -nü -i moʔtzo-jot -pi
 -already-COMD mud -innards-LOC
 'The little turtle got stuck in the mud.'
 {lm2/283}
- c. pi:nak jaʔkoj ʔikupiyam
 pi:nak jaʔ=koj ʔi= kup -ʔi:yʔ -am
 a little DEF=just A3(ABS)=puncture-INWARDS-IRRI
 'It (the rheumatism) will puncture just a little
 bit (inside my body.)' {aandc/510}

- d. yam ?iyaktaji?a?n je? kuyü
 ya?+mü ?i= yak- taj-?i:y? -a?n je? kuy
 here A3(ABS)=PASS-dig-INWARDS-IRR that tree
 'The stick is going to be buried here.' {cafe/17}

With intransitive verbs of locution or emission, the directional signals that the sound or substance emitted by the only core argument of the verb ends up inside of a hole or cavity, as in (66a-b).

- (66) a. je:pak ?iya:xi?
 je?+pi=ak ?i= ya:x?-?i:y? -i
 there =AN A3(ABS)=shout-INWARDS-INCD
 '(The kid) is screaming inside there.' {id2/122}
- b. tzujiyuk ja:rru?p
 ø= tzuj-?i:y? -u =k ja:rru-pi
 B3(ABS)=spit-INWARDS-COMI=AN jar -LOC
 'He spit inside of the jar.' {DICT}

With verbs of perception, the suffix indicates that the gaze is being directed towards an inner part of a container or a hole.

- (67) kuykü:kpi ?i?e:pi?
 kuy -kü:k -pi ?i= ?e:p-?i:y? -i
 tree-hollow-LOC A3(ABS)=see -INWARDS-INCD
 'He is looking inside the hole of the tree.'
 {rschl/527}

With transitive motion verbs, the directional signals the trajectory followed by the theme (the "O" argument) until it ends up inside of a hole or a container with an opening. For instance, in (68a), the moving entity that ends up in the

basket is the banana. The same observation is valid for the rest of following examples.

- (68) a. tana:wiyi jeʔ kawakü kaʔkajotpi
 ta= na:w -ʔi:yʔ -i jeʔ kawak
 C3(ERG)=throw-INWARDS-COMD that banana

 kaʔka -jot -pi
 basket-innards-LOC
 'He threw that banana inside the basket.'
 {rspfl/462}
- b. porke je:pak xtajiyi don jwan
 porke jeʔ+pi=ak tax= taj-ʔi:yʔ -i don
 because there =AN C1(ERG)=dig-INWARDS-COMD Mr.

 jwan
 John
 'Because I buried Mr. John there.' {rp2/267}
- c. yamak tyakmukiʔ ʔiwo:lsajotpi
 yaʔ+mü=ak ta= yak- muk -ʔi:yʔ -i
 here =AN C3(ERG)=CAUS-join-INWARDS-INCD

 ʔi= wo:lsa-jot -pi
 A3(PSR)=bag -innards-LOC
 'He is gathering (the avocados) inside his bag.'
 {rspfl/275}
- d. jeʔk ʔiyopopiyu na:xü
 jeʔ =k ʔi= yopop -ʔi:yʔ -u na:x
 that=AN A3(ERG)=pile_up-INWARDS-COMI dirt
 'He threw the dirt inside.' {lm4/586}

When both the agent and the theme refer to the same entity, as in reflexive constructions, the directional encodes the path followed by that entity until it reaches the endpoint.

- (69) a. ʔinina:wiiyak tü:yampi
 ʔi= ni- na:w -ʔi:yʔ -i -y =ak
 A3 (ABS)=RFLX-throw-INWARDS-COMD-INVD.C=AN

 tü:y+an-pi
 hammock-LOC
 'He threw himself inside the hammock.' {olu4/320}
- b. wepak ʔiniyu:kiyi kaxunjotpi
 wew+pi=ak ʔi= ni- yu:k-ʔi:yʔ -i
 there =AN A3 (ABS)=RFLX-hide-INWARDS-COMD

 kaxun-jot -pi
 box -innards-LOC
 'He hid himself there, inside the box.'
 {zopil/134}

Similar to what happens with intransitive verbs of the same type, the directional suffixed to transitive verbs of locution or emission, does not convey the trajectory of the entity affected by the action (the "O" argument) since this entity does not necessarily move when the event occurs. Instead, -ʔi:yʔ indicates that the sound or substance emitted by the agent transpasses a boundary when it reaches the affected entity, i.e. the "O" of the transitive verb. Thus, in the following examples the moving entity is either the sound emitted by the agent (70a-b), or the substance coming out of the agent (70c). The moving entity is not expressed as an independent core argument of the clause.

- (70) a. takü:kya:xiyi chu:chunaʔk kuyü
 ta= kü:k -ya:xʔ-ʔi:yʔ -i chu:chu-nak kuy
 C3 (ERG)=hollow-shout-INWARDS-COMD child -DIM tree
 'The little child was yelling inside of the hole.'
 {id2/149}

- b. ʔitze:kiyiʔakü koʔpaktumpaʔ de jeʔ pala:syo
 ʔi= tze:k-ʔi:yʔ -i -y =ak
 A3 (ABS)=scold-INWARDS-COMD-INVD.C=AN

 koʔpak+tun+pa+ʔ de jeʔ pala:syo
 chief of that palace
 'The chief of that palace scolded him.' {olu4/94}
- c. nini:tüʔniyünüpa:keʔ
 ø= ni- ni:- tü:nʔ -ʔi:yʔ -nü -ü
 B3 (ABS)=RFLX-BODY-defecate-INWARDS-already-INV

 -pa =k =jeʔ
 -INCI.I=AN=that
 'He is already shiting on himself.' {rp3/381}

Similarly, with transitive verbs of perception, the moving entity, whose path is specified by the directional, is not a core argument of the clause. For instance in (71), the "A" argument is the dog, while the "O" argument is the tree. The directional specifies the trajectory followed by the gaze, which is not coded as a participant of the clause.

- (71) yaʔk xuʔninakü ʔikü:kʔe:pi:pek
 yaʔ =ak xuʔni-nak
 this=AN dog -DIM

 ʔi= kü:k- ʔe:p-ʔi:yʔ -pe =k
 A3 (ERG)=hollow-see -INWARDS-INCI.T=AN
 'This dog is looking through the hole (of the tree.)' {id2/24}

The third morpheme of the set of directional suffixes is -tzi:yʔ 'no motion' glossed as 'STAY'. It is likely that this morpheme grammaticalized from the intransitive verb

tzi:y? 'stick something in a location, take root (of a plant), be caught'.

- (72) a. tziyu ?aka?x potzapu?pu?m
 ø= tzi:y?-u ?akax potza-pu?pu-mü
 B3(ABS)=stick -COMI lime wall -belly-LOC
 'The lime stuck on the wall.' {DICT}
- b. tzi:pa seme ni:wi xi:muk ?ina:xmü
 ø= tzi:y? -pa seme ni:wi xi:mu=k
 B3(ABS)=take_root-INCI.I very chilli Simon=AN
- ?i= na:x-mü
 A3(PSR)=land-LOC
 'The chilli pepper really takes root on Simon's land.' {DICT}
- c. xyaktzi? chikixawo?k ni?ti?k xiwit maye
 tax= yak- tzi:y? -i chikix -?awok
 C1(ERG)=CAUS-be caught-INCD parakeet-DIM
- ni?tik xiwit maye
 everything year TEMP
 'I used to catch little parakeets every year.'
 {abeja/19}

The directional -tzi:y? may be suffixed to intransitive and transitive verbal roots. Intransitive verbs plus -tzi:y? refer to states in which the sole participant of the verb stays in one location for a long period of time keeping the same position.

- (73) a. ta?e:ptzi:pa
 ta= ?e:p-tzi:y?-pa
 B1(ABS)=see -STAY -INCI.I
 'I am staring at something.' {DICT}

- b. ?iju:ni:tzi:küxi me:xa?p
 ?i= ju:n-ni:y? -tzi:y?-küx-i me:xa-pi
 A3(ABS)=sit -PERDUR-STAY -PL3-COMD table-LOC
 'They sat down on the table.' {burdel/31}
- c. mixokawtzinyüw
 mi= xok+?aw -tzi:y?-nü -w
 B2(ABS)=be_lying-STAY -already-COMI
 '[...] you were already lying down.' {rspf2/567}
- d. jumü ?itüni:tzi? ya?aj witita?n
 jumü ?i= ten -ni:y? -tzi:y?-i ya?aj
 where A3(ABS)=stand_up-PERDUR-STAY -INCD this

 witit+an
 car
 '[...] where this bus stops.' {vg/454}
- e. ku:pni:tzi?a:mak si:ri porke ?itüpak nü:tü?ni
 ø= ku:p -ni:y? -tzi:y?-am =ak si:ri porke
 B3(ABS)=squat-PERDUR-STAY -IRRI=AN Cirilo because

 ø= ?it -ü -pa =k nü:- tü:n? -i
 B3(ABS)=exist-INV-INCI.I=AN water-defecate-NMZR
 'Cirilo is going to be squatting down because he
 has diarrhea.'

Most of the postural verbal roots may be suffixed by -tzi:y?. This class of roots are also known as positional predicates in Meso-American linguistics (Dayley 1985a, England 1983, Kaufman 1990, Knowles 1984, Martin 1977). The predicates in the examples (73b-d) and (74) belong to this class.

(74) Positional Verb-tzi:y?

- a. koxo+ten+ni:y?-tzi:y? 'kneel'
 b. pu?x+ni:y?-tzi:y? 'kneel'
 c. pam+ni:y?-tzi:y? 'stand'
 d. ku:p+ni:y?-tzi:y? 'bend'

- e. koj+tekek-tzi:y? 'lean'
 f. chinkoj-tzi:y? 'be on all fours'

The suffix -tzi:y? following transitive verb roots indicates that the theme is put in a particular position, as in (75a). The directional -tzi:y? added to verb stems which include the associative applicative mü:- conveys that both core arguments stay in the particular position predicated by the verb root, as in (75b). With verbs of perception, the directional indicates that the agent has a glazed look in his eyes when observing the theme, as in (75c).

- (75) a. porke minuk tyaktüni:tzi:küxi
 porke mi:n?-u =k
 because come -COMI=AN
- ta= yak- ten -ni:y? -tzi:y?-kük-i
 C3(ERG)=CAUS-stand_up-PERDUR-STAY -PL3-INCD
 'Because they came to stand up (the supports of the house.)' {rschl/391}
- b. je?k jem jayju:ni:pa?aj ta+ mü:xokawtziyi
 jaytzü?na?k
 je? =k je?+mü jay+ju:n+ni:y?+pa+?aj
 that=AN there the_one_who_lives_there
- ta= mü:- xok+aw -tzi:y?-i jaytzü? -nak
 C3(ERG)=ASSOC1-be_lying-STAY -INCD old_lady-DIM
 'That one over there, the one who stays there, he went to bed with the little old lady.'
 {C11a/43/658}

- c. tanʔe:ptzi:pe ta ʔitpa jamaj chaj tankepeʔej
 tan= ʔe:p-tzi:yʔ-pe ta ø= ʔit -pa
 A1(ERG)=see-STAY-INCI.T COND B3(ABS)=exist-INCI.I
- jamaj chaj tan= kep -pe -ʔej
 that what A1(ERG)=look-INCI.T-NMZR
 'I am staring at it to see if the thing I am
 looking for is there.' {DICT}

To sum up, the three members of the paradigm of directional suffixes seem to have been part of a more elaborated system of directionals which was present in Proto-Mixe or Proto-Mixe-Zoque. This conclusion is based on two facts: first, the etymology of these suffixes remains obscure; and second, these suffixes have developed other functions which are not properly associated with direction. This is, by itself, an indication that they are very old suffixes. The most likely source of grammaticalization for these suffixes is the serial verb construction. Note that none of the morphemes of this small paradigm convey deictic information, i.e., they do not include notions such as 'hither' and 'thither' which are the most common grammaticalized directional morphemes in languages of the world (DeLancey 1980, Foley and Olson 1985). These notions and others are part of a third set of grammaticalized directionals that will be explained next.

4.2.3 Directionals Coming from Motion Verbs

Olutec has a third set of directionals which exhibits more elaborated semantic oppositions when compared with the first two sets discussed above. However, the semantic features included in the first two sets of directionals (up, down, inwards, and lack_motion) are also covered by the third set. There are several pieces of evidence indicating that this third set of directionals is a feature that Mixe-Zoquean languages developed through contact with Mayan languages spoken in the South (languages of the Tzeltalan group.)

The third set of directionals is formed by thirteen suffixes that grammaticalized from serialized motion verbs. The thirteen Olutec motion verbs which gave rise to the paradigm of directionals are listed in (76). The meanings of the lexical sources are given in the second column, while the meanings of the directionals are given in the third column. The paradigm is divided in three subsets according to the type of information conflated within the verbal root: I) deixis and motion, II) motion and orientation, and III) lack of motion.

(76)	<u>Verb</u>	<u>Directional</u>
	<u>I. Deixis</u>	
	<u>mi:nʔ</u>	come
	<u>nükx</u>	go
	<u>yaʔt</u>	arrive here
	<u>jamat</u>	arrive there
		hither
		thither
		arriving here
		arriving there

II. Orientation

<u>pet</u>	ascend	up
<u>kaʔ</u>	descend	down
<u>tükʔi:yʔ</u>	enter	in
<u>pitzüm</u>	exit	out
<u>yüʔk</u>	be born, leave	out
<u>wimpit</u>	return	back
<u>nax</u>	cross	across
<u>tuk</u>	cross	across

III. Lack of Motion

<u>tij</u>	stay	staying
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All the languages of the Mixe-Zoquean family have paradigms that make similar semantic distinctions, although not all the verbal roots involved within these paradigms are cognate (Kaufman 1996). Remarkably similar systems of directionals are found in most of the members of the Mayan family, with the exception of languages of the Yukatekan and Wastekan branches (Zavala 1993). Mayan directionals also evolved from serial verb constructions. There are Mayan languages in which a predicate can be followed by a string of two or three directionals co-occurring one after another (cf. Haviland 1993 for Tzotzil, Craig 1993 for Jakaltek, and

Zavala 1992, 1994a for Akatek.) Mayan directionals have undergone phonological erosion. Semantically, they convey trajectory, aspect and other metaphorical senses that are lexically determined. They occur with all types of predicates (verbs, copulas and non-verbal predicates [adjectives and positional roots]) and their frequency in discourse is remarkably high. In some Mayan languages, directionals are also suffixed to adpositions. Unlike the case of Mayan, the members of the set of directionals in Olutec and other Mixe-Zoquean languages cannot form strings of more than one directional following a predicate. In Olutec these directionals have not undergone phonological erosion. Their semantics is highly transparent. Unlike Mayan directionals, Olutec directionals cannot be suffixed to non-verbal predicates or adpositions. Their frequency in discourse is extremely low when compared with the figures reported for languages such as Jakalteq (Craig 1993: 30.)⁷ All of this indicates that the third set of directionals in Olutec (and very likely in the rest of the Mixe-Zoquean languages) represents a late development that arose due to the intense contact of Mixe-Zoquean speakers with Mayan speakers of the region.

When occurring as main verbs of the clause, the morphemes listed in (76) convey motion (or the lack of

motion) in addition to trajectory or path. Note that manner is not conflated in the semantics of these verbs, i.e., the verbs meaning 'walk', 'fly', 'run', etc., are not part of this set.

As main verbs nax 'cross' and tuk 'cross' are the only two that are agentive ambitransitive. The participant that moves is the "A" of a transitive verb or the "S" of an intransitive verb.

- (77) Transitive
 a. ʔinaxwaʔkok rri:w
 ʔi= nax -w -aʔ =koj =k rri:w
 A3(ERG)=cross-COMI-PERF=just=AN river
 'He had already crossed the river.' {ropa/138}
- Intransitive
 b. jem tanaxi tu:rukuratjem
 jeʔ+mü tan= nax -i tu:ru-kurat -jem
 there A1(ABS)=cross-COMD bull -corral-LOC
 'There, I passed by the bull's corral.' {olu9/63}
- (78) Transitive
 a. ʔituknüpak le:ncho yaʔaj nü:jü
 ʔi= tuk -nü -pe =ak le:ncho yaʔaj
 A3(ERG)=cross-already-INCI.T=AN Lencho this
 nü:
 stream
 'Lencho is already crossing the stream' {DICT}
- Intransitive
 b. jaʔmexük ʔituki
 jaʔmej =xü=k ʔi= tuk -i
 in that way=EV=AN A3(ABS)=cross-COMD
 'It is said that he crossed in that way.'
 {deaa/44}

The rest of the verbs within the set are intransitive. The absolutive argument (the "S") signals the figure that changes location in space or stays in the same place. The four deictic verbs functioning as main verbs are illustrated in (79).

- (79) a. jemak ?imi?n ?ajawimpi
 je?+mü=ak ?i= mi:n?-i ?aja -win-pi
 there =AN A3(ABS)=come -INCD canoe-top-LOC
 'From there, they were coming in the canoe.'
 {olu1/98}
- b. tükxpa tana:xmü xejpükpa?
 ta= nükx-pa tan= na:x-mü xej+pük-pa+?
 B1(ABS)=go -INCI.I A1(PSR)=land-LOC rest -NF
 'I am going to my town to rest.' {olu28/204}
- c. ?ijamatik pro:we na?wunakü mü:t je? nü:nü ta:najti
 ?i= jamat -i =k pro:we na?aw -?unak
 A3(ABS)=arrive_there-COMD=AN poor old_man-DIM

 mü:t je? nü:n ta:najti
 with that tortilla basket
 'The poor old man arrived there with the basket
 full of corn tortillas.' {desob/35}
- d. tya?tneje:tü?s taju?kopakmü:tekü?s
 tan= ya?t -nü -i -e:t -ütz
 A1(ABS)=arrive_here-already-COMD-PL.SAP-EXCL

 tan= ju?kopak-mü -:tek -ütz
 A1(PSR)=town -LOC-PL.SAP-EXCL
 'We came here to our home town.' {olu28/887}

The verbal roots pet, ka?, tük?i:y?, pitzüm, yü?k, and wimpit from the second subset, functioning as independent verbs, are illustrated in (80).

- (80) a. jeʔ ʔu:rak ʔipeti ʔikawa:yuʔp
 jeʔ ʔu:ra=k ʔi= pet -i ʔi= kawa:yu-pi
 that hour=AN A3(ABS)=ascend-COMD A3(PSR)=horse-LOC
 'That is when he got onto his horse.' {diabl/78}
- b. jeʔk nuʔpu ʔikaʔpownejkok na:xpi
 jeʔ =k nuʔpu ʔi= kaʔ -pow -nü -i
 that=AN buzzard A3(ABS)=descend-again-already-COMD
 =koj =k na:x -pi
 =just=AN earth-LOC
 'The buzzard descended again to the earth.'
 {olu5/120}
- c. mü:t ʔitüki:küxixüʔk kwa:rtuʔm
 mü:t ʔi= tük+ʔi:yʔ-küx-i =xü=k kwa:rtu-mü
 and A3(ABS)=enter -PL3-COMD=EV=AN room -LOC
 'And they went into the room.' {burdel/90}
- d. pitzümküxnüpxük pu:xtükpi jamaj jaykaʔk
 ø= pitzüm-küx-nü -pa =xü=k
 B3(ABS)=exit -PL3-already-INCI.I=EV=AN
 pu:x+tük-pi jamaj jaykak
 church -LOC that people
 'It is said that those people were already leaving
 the church.' {olu5/127}
- e. jeʔ ʔu:raxüʔk ʔiyüʔküxnej mü:t to:ki ʔasta ʔitükmü
 jeʔ ʔu:ra=xü=k ʔi= yüʔk -küx-nü -i
 that hour =EV=AN A3(ABS)=leave-PL3-already-COMD
 mü:t to:ki
 with iguana
 'That is when they came out with the iguana.'
 {iguana/83}
- f. jeʔ ko:xokoj tawimpitneje:tüʔs tana:xmü
 jeʔ ko:xo=koj tan= wimpit-nü -i
 that day =just A1(ABS)=return-already-COMD
 -:t -ütz tan= na:x-mü
 -PL.SAP-EXCL A1(PSR)=land-LOC
 'That day we came back to my town.' {olu28/553}

In (81), the verb tij 'stay', which is the only member of the third subset, appears as an independent verb.

- (81) yankoj tantijaʔn
 yaʔ+mü=koj tan= tij -aʔn
 here =just A1(ABS)=stay-IRR
 'I am going to stay right here.' {olu5/111}

A motion verb immediately following another verb root forms a nuclear serial verb construction. Motion verbs in second position grammaticalized as directionals. Directionals convey the trajectory followed by the only argument of intransitives and the theme argument of transitives and ditransitives. The argument structure of the clause is determined by the first verb in combination with the affixes that increase or decrease the valence. That is, directionals do not influence the number of core arguments that a verbal stem can take. When the first verb is intransitive, the clause is intransitive.

- (82) a. mente jaʔk weka yokxpitzümnüpak de ʔitükümü
 mente jaʔ=k weka ø= yokx-pitzüm -nü
 while DEF=AN frog B3(ABS)=jump-DIR:out-already

 -pa =k de ʔi= tük -mü
 -INCI.I=AN of A3(PSR)=house-LOC
 'While the frog is jumping out of its house [...]'
 {id2/32}

- b. mejo:rak ?iya:xka?e
 mejo:r=ak ?i= ya:x?-ka? -e
 better=AN A3(ABS)=shout-DIR:down-INCD
 'Even better, he was screaming downwards.'
 {aandc/291}

When the first verb is transitive, the clause is transitive.

- (83) a. je? ?u:raxü?k taju:tpitzümi ?ikuchi:nu
 je? ?u:ra=xü=k ta= ju:t -pitzüm -i
 that hour=EV=AN C3(ERG)=unsheathe-DIR:out-COMD
 ?i= kuchi:nu
 A3(PSR)=knife
 'At that time he unsheathed his knife.'
 {diab2/106}
- b. te:jana?aw tayopopka?i
 te:ja-na?w ta= yopop-ka? -i
 tile -AUGM C3(ERG)=pile -DIR:down-INCD
 'They are piling big tiles down there.' {lm3/486}

When the first verb affixed by an applicative forms a ditransitive verb stem, the clause is ditransitive.

- (84) a. tako:xospetayik tu?k mo:kuna?k kuyjem ya?k
 tantükaw
 ta= ko:+xotz-pet -ay -i =k
 C3(ERG)=tie -DIR:up-APPL1-INCD=AN
 tuk mo:k-?unak kuy -jem ya? =ak tan= tükaw
 one corn-DIM tree-LOC this=AN A1(PSR)=father
 'My father used to tie a little corncob to the top
 of the pole (for the parrot.) {duenyo/36}
- b. tatzuktukayik ?ikü?
 ta= tzuk-tuk -ay -i =k ?i= kü?
 C3(ERG)=cut -DIR:across-APPL1-COMD=AN A3(PSR)=hand
 'He_i cut his_j hand.' {rsch2/376}

Directionals suffixed to verbs that imply motion describe the trajectory or path followed by the moving entity. With intransitive verbs, directionals signal the path followed by the "S" argument. The "S" can be a volitional agent, as in (85a-d), or an affected theme, as in (86a-d).

- (85) a. yam miyokxpetaʔn
yaʔ+mü min= yokx-pet -aʔn
here A2(ABS)=jump-DIR:up-IRR
'You are going to jump up here.' {piojo/49}
- b. yamjexmiʔn
yaʔ+mü jex -mi:nʔ -ü
here move_ahead-DIR:hither-IMPR
'Come closer!' {olu28/88}
- c. paʔko jaykaʔk ʔiyopopitzümi
paʔko jaykak ʔi= yopop-pitzüm -i
a_lot people A3(ABS)=pile -DIR:out-COMD
'A lot of people crowded on their way out.'
{olu4/158}
- d. tanaxtukpa:tna
ta= nax -tuk -pa -:t =na
B1(ABS)=cross-DIR:across-INCI.I-PL.SAP=still
'We are still crossing through.' {lm4/205}
- (86) a. maʔskaʔu jo:yaʔn
ø= maʔtz-kaʔ -u jo:yan
B3(ABS)=fell -DIR:down-COMI wasp
'The wasp's nest fell down.' {id2/139}
- b. ja:jeʔk potukwaʔ jeʔ gita:rra ʔife:me
jaʔ=jeʔ =k ø= pot -tuk -w -aʔ
3AN=CLEFT=AN B3(ABS)=break-DIR:across-COMI-PERF
jeʔ gita:rra ʔi= ʔe:m+e
that guitar A3(PSR)=string
'The string of his guitar broke.' {rsch2/677}

- c. jumej püne? ?iti?kxtuki limun?awkü?xü
 jumej pün=je? ?i= ti?kx-tuk -i
 how DUB=CLEFT A3 (ABS)=snap -DIR:across-COMD
- limun-?aw+kü?x
 lime -branch
 'Who knows how the branch of the lime tree broke.'
 {vg/686}
- d. ?o ta mipojpetam
 ?o ta mi= poj -pet -am
 or COND B2 (ABS)=kick-DIR:up-IRRI
 'Or maybe you are going to stumble.' {lm2/65}

Directionals suffixed to transitive verbs of motion specify the trajectory followed by the "O" argument. For instance, in (87a), the directional -pet indicates that the deer was lifted from the ground onto the back of the hunter. When this event occurred, the agent did not move in an ascending direction. The directionals -pitzüm 'out' and -ka? 'down' follow the verbs wü:n 'pull' and na:w 'throw' in (87b) to indicate that the frog was pulled out and thrown down. In encoding these series of events, the path followed by the agent (if he moves) is left unspecified. In (87c), the directional -pet 'up' indicates that the pieces of wild cane are being nailed on the roof of the house. In (87d), the directional -pitzüm 'out' indicates the garbage is being swept out from under a bed. The agent does not leave the room when this event occurs. And finally, the directional -nax 'across' in (87e) indicates that the food is going to

be moving through the esophagus of the speaker once he takes the medicine with the purpose of throwing up.

- (87) a. jeʔ ʔu:ra tatzümpeti ʔiküxjemü
 jeʔ ʔu:ra ta= tzüm -pet -i
 that hour C3(ERG)=carry-DIR:up-COMD

 ʔi= küx -jem
 A3(PSR)=back-LOC
 'That is when he put (the deer) on his back.'
 {olu27/100}
- b. jeʔ ʔu:raxüʔk tawü:mpitzünküxi weka
 tana:wkaʔküxixüʔk na:xpi
 jeʔ ʔu:ra=xü=k ta= wü:n-pitzüm -küx-i
 that hour =EV=AN C3(ERG)=pull-DIR:out-PL3-COMD

 weka ta= na:w -kaʔ -küx-i =xü=k
 frog C3(ERG)=throw-DIR:down-PL3-COMD=EV=AN

 na:x -pi
 earth-LOC
 'That is when they pulled the frog out and they
 threw it down.' {zopil/185-6}
- c. mü:tak tako:pa:jpeti pü:yi
 mü:t=ak ta= ko:+pa:jʔ-pet -i pü:yi
 and =AN C3(ERG)-nail -DIR:up-COMD wild_cane
 'And he nailed pieces of wild cane (to the roof of
 the house.)' {lm2/24}
- d. jaʔjeʔ minpe:tpitzümpe
 jaʔ=jeʔ min= pe:tʔ-pitzüm -pe
 DEF=CLEFT A2(ERG)=sweep-DIR:out-INCI.T
 'That is what you used to sweep out.' {rp2/388}
- e. para taʔü:snaxnoʔonak jeʔ kayaʔn
 para tax= ʔü:tz-nax -nü -aʔn =ak jeʔ
 so C1(ERG)=vomit-DIR:across-already-IRR=AN that

 kay+an
 food
 '[Give me a medicine that I can use] to throw up
 that food!' {rs4/237}

The directional -tuk 'across' is suffixed to verbs of breaking, removing, cutting and biting to indicate that the affected theme is detached or cut off.

- (88) a. jaʔk minuk tuʔk mu:xi ʔichiptukaʔxiyak ʔijüpü
 jaʔ=k mi:nʔ-u =k tuk mu:xi
 DEF=AN come -COMI=AN one bird
- ʔi= chip -tuk -aʔx -i -y =ak
 A3(ABS)=scratch-DIR:across-APPL-COMD-INV.D.C=AN
- ʔi jüp
 A3(PSR)=nose
 'A bird came and pulled his nose off by cutting it.' {rsch2/368}
- b. jaʔk ʔituʔsta ʔikituku
 jaʔ=k ʔi= tuʔtz+ta ʔi= kit -tuk -u
 DEF=AN A3(PSR)=tail A3(ERG)=bend-DIR:across-COMI
 'He broke his tail.' {rspf1/70}
- c. tapotukik ʔituʔsta
 ta= pot -tuk -i =k ʔi tuʔtz+ta
 C3(ERG)=break-DIR:across-COMD=AN A3(PSR)=tail
 'He pulled out his tail' {rsch2/675}
- d. tejpekü tanpuyü tantzuktukam pi:nak tzuʔchi
 teʔej=pek tan= puy
 now =trully A1(PSR)=thigh
- tan= tzuk-tuk -am pi:nak tzuʔchi
 A1(ERG)=cut -DIR:across-IRRI a little meat
 'And now I am going to cut a little bit of meat from my own leg.' {olu5/101}
- e. pi:nako yaʔaj mixmukxtuki
 pi:nak =koj yaʔaj mix= mukx-tuk -i
 a little=just this C2(ERG)=bite-DIR:across-COMD
 'You bit it a little bit.' {rp3/565}

Directionals suffixed to verbs of locution and direct perception indicate that the sound or gaze of one of the participants of the event follows a specific trajectory when such an event takes place. Neither the sound nor the gaze are direct core arguments of the verb (though they are lexicalized into the meaning of the verbs). The only core argument cross-referencing the absolutive proclitic of an intransitive verb is the locutor or perceiver. Examples of intransitive verbs suffixed by directionals describing the trajectory of the sound emitted are (89a-b). The directionals in (89c-d) describe the trajectory of the gaze of the only argument of the intransitive verbs ʔix 'see, take care' and ʔe:p 'see'.

- (89) a. je:pak ʔiya:xmiʔn
 jeʔ+pi=ak ʔi= ya:xʔ-mi:nʔ -i
 there =AN A3(ABS)=shout-DIR:hither-INCD
 'He was screaming from there towards this way.'
 {aandc/298}
- b. momkaʔa
 mon -kaʔ -a
 be quiet-DIR:down-IMPR
 'Quiet down!' {id2/206}
- c. ʔixnaxpa jaʔ
 ø= ʔix-nax -pa jaʔ
 B3(ABS)=see-DIR:across-INCI.I 3AN
 'He is reading.' {rsch1/289}

- d. ʔe:pitzümpa jeʔ xuʔni nü:kü:kpi
 ø= ʔe:p-pitzüm -pa jeʔ xuʔni
 B3 (ABS)=see -DIR:out-INCI.I that dog
- nü: -kü:k -pi
 water-hollow-LOC
 'The dog is looking out from inside the puddle.'
 {rschl/702}

The two core arguments of transitive verbs of locution and perception are: 1) the locutor or perceiver (the "A" argument) and 2) the entity that listens or perceives (the "O" argument.) The sound or gaze, whose path is described by the directional, is not a core argument of the verb.

- (90) a. taxkapxwimpitam
 tax= kapx -wimpit -am
 C1 (LOCAL)=speak-DIR:back-IRRI
 'I am going to carry out the promise I made to you.' (Lit. 'I am going to speak back the word to you.') {DICT}
- b. yaʔk xuʔninakü jaʔk ʔiya:xpetaype tuʔk wü:niʔk
 jo:yaʔn
- yaʔ =ak xuʔni-nak jaʔ=k ʔi= ya:xʔ-pet
 this=AN dog -DIM DEF=AN A3 (ERG)=shout-DIR:up
- ay -pe tuk wü:nik jo:yan
 -APPL1-INCI.T one_wasp nest
 'The dog was barking up at the wasp's nest.'
 {id2/103}
- c. jaʔk ʔiʔixnaxpe peryo:diko
 jaʔ=k ʔi= ʔix-nax -pe peryo:diko
 3AN=AN A3 (ERG)=see-DIR:across-INCI.T newspaper
 'He is reading the newspaper.' {rschl/338}

- d. je:pak tantoj?e:pka?eje:t;
 je?+pi=ak tan= toj- ?e:p-ka? -e
 there =AN A1 (ABS)=INSTR-see -DIR:down-INCD
- j -e:t
 -INVD.I-PL.SAP
 '(God) is watching us from up there.' {rss10/53}

Directionals suffixed to verbs of emission indicate the trajectory of the sound, light, smell or excretion emitted by one of the core arguments of the verb. The reference of the thing emitted can be pragmatically inferred from the general context or from the semantics of the verb. Emission verbs always entail the existence of an entity that can be perceived when the event occurs. For instance, in (91a) the semantics of the verb tza:y?-ka? 'shine down' entails that some entity emits light. The entity in this case is the sun. Note that the suffix -ka? 'down' describes the trajectory followed by the rays of sunlight, i.e., the directional does not convey the trajectory of the sun itself. In (91b), -ka? specifies that the light produced by candles "lowers" their intensity until they are extinguished. In (91c) -pet indicates that the sparks produced by fire went up. In (91d), -nükx signals that the sound diminished as the person was falling down. In (91e-f) the directionals describe the trajectory followed by the excretions produced by the human body.

- (91) a. tantükawa:tekü tzayka?pa? tzapwimpi
 tan= tükaw -a:tek
 A1 (PSR)=father-PL.SAP
 ø= tza:y? -ka? -pa+? tzap+win-pi
 B3 (ABS)=shine -DIR:down-NF sky -LOC
 'Our father (the sun) who shines down from the
 sky.' {rss10/51}
- b. na?kxekü ?ikapxküxi ?ipi?ska?i ni?ja?mej
 tü?kxantükü
 na?kxej=k ?i= kapx -kux-i
 when =AN B3 (ABS)=speak-PL3-COM
 ?i= pi?tz -ka? -i ni?ja?mej
 A3 (ABS)=extinguish-DIR:down-COMD all
 tü?kxan-tük
 candle -PL
 'When they were talking all the light from the
 candles became extinguished.' {C9/68/38}
- c. yukchipipetu jünü
 ø= yuk-chipip -pet -u jün
 B3 (ABS)=UP- spark -DIR:up-COMI fire
 'The fire was shooting sparks up.' {DICT}
- d. pimimnükxi ?ika?i kü:kpi
 pimim -nükx -i ?i= ka? -i
 thunder-DIR:thither-NMZR A3 (ABS)=descend-COMD
 kü:k-pi
 hole-LOC
 'He fell clattering down the hole.' {DICT}
- e. mija:kpitzümu
 mi= ja:k -pitzüm -u
 B2 (ABS)=spit-DIR:out-COMI
 'You spat out.' {DICT}
- f. tata:ska?pa kü:kjotpi
 ta= ta:tz -ka? -pa kü:k-jot -pi
 B1 (ABS)=urinate-DIR:down-INCI.I hole-inside-LOC
 'I am urinating inside the hole.' {DICT}

The ambitransitive verb tuj 'shoot', when suffixed by a directional, patterns like the verbs of emission. The directional conveys the trajectory of the bullet that comes out of the gun when someone is being shot. The shooter is the "A" argument while the entity being shot represents the "O" argument of the clause. The bullet is not portrayed as a core argument of the clause. However, the bullet's path is conveyed within the verb morphology via the directional. The following pair of examples, which include the verb tuj, illustrates this. (92a) is intransitive, while (92b) is transitive. The verb in both examples is suffixed by -pitzüm to indicate that something moved out from an enclosed space when the event occurred. In these examples there is no indication that either the shooter or the person shot moves out from an enclosed space. It is clear then, that the directional -pitzüm 'out' conveys the trajectory of the bullet, which comes out of the gun when the event occurred.

- (92) a. jemak ʔitujpitzümküxi
 jeʔ+mü=ak ʔi= tuj -pitzüm -küx-i
 there =AN A3 (ABS)=shoot-DIR:out-PL3-COMD
 '[The shooters were inside the house, at the
 window.] They were shooting out from there. [That
 is when they killed two men.]' {vg/854}

- b. jemak ?itujpitzümküxiy
 je?+mü=ak ?i= tuj -pitzüm -kük-i -y
 there =AN A3(ABS)=shoot-DIR:out-PL3-COMD-INVD.C
 '[They locked themselves up in Antonio's house.]
 They shot out at them from there. [They killed
 them.]' {vg2/28}

Some verb roots that do not specify any trajectory may take different directionals to create verbal stems bearing very precise meanings with respect to the orientation of one of the participants of the event. The meaning of these verbal stems is clearly compositional and transparent. For instance, the transitive motion verb tzüm 'carry on the back or on the shoulders' is one of the verbal roots that can co-occur with the whole set of directionals. The various combinations convey the different paths followed by the thing being carried.

- (93) a. tzüm-mi:n? 'carry s.th. towards ego'
 b. tzüm-nükx 'carry s.th. away from ego'
 c. tzüm-ya?t 'carry s.th. towards ego leaving it there'
 d. tzüm-jamat 'carry s.th. away from ego leaving it there'
 e. tzüm-pet 'carry s.th. up'
 f. tzüm-ka? 'carry s.th. down'
 g. tzüm-tük+?i:y? 'carry s.th. in'
 h. tzüm-pitzüm 'carry s.th. out'
 i. tzüm-yü?k 'carry s.th. away'
 j. tzüm-wimpit 'carry s.th. back and forth'
 k. tzüm-nax 'carry s.th. to the other side'
 l. tzüm-tuk 'carry s.th. to the other side'
 m. tzüm-tij 'carry s.th. somewhere and leave it'

The perception verb ʔe:p 'see' is another root that may be suffixed by the whole set of directionals. The different directionals specify the trajectory followed by the gaze.

- (94) a. ʔe:p-mi:nʔ 'see s.th. facing ego'
 b. ʔe:p-nükx 'see s.th. being away from ego'
 c. ʔe:p-yaʔt 'see s.th. being near ego'
 d. ʔe:p-jamat 'see s.th. being away from ego'
 e. ʔe:p-pet 'see s.th. being up'
 f. ʔe:p-kaʔ 'see s.th. being down'
 g. ʔe:p-tük+ʔi:yʔ 'see s.th. being inside'
 h. ʔe:p-pitzüm 'see s.th. being outside'
 i. ʔe:p-yüʔk 'see s.th. being away'
 j. ʔe:p-wimpit 'see s.th. being in the back'
 k. ʔe:p-nax 'see s.th. on the other side'
 l. ʔe:p-tuk 'see s.th. on the other side'
 m. ʔe:p-tij 'stop seeing s.th.'

Two additional examples of verbal roots that take the whole set of directionals are the intransitive manner verb napap 'fly' and the intransitive emission verb ya:xʔ 'scream, cry, bark'. In the first case the directional conveys the path followed by the flying entity. In the second case the directional encodes the trajectory of the noise produced by the entity when it screams, cries or barks.

- (95) a. napap-mi:nʔ 'fly towards ego'
 b. napap-nükx 'fly away from ego'
 c. napap-yaʔt 'fly nearby ego'
 d. napap-jamat 'fly to a specific place'
 e. napap-pet 'fly up'

- | | | |
|---------|------------------------|-------------------------------|
| f. | <u>napap-ka?</u> | 'fly down' |
| g. | <u>napap-tük+?i:y?</u> | 'fly into' |
| h. | <u>napap-pitzüm</u> | 'fly out of' |
| i. | <u>napap-yü?k</u> | 'fly away' |
| j. | <u>napap-wimpit</u> | 'fly back' |
| k. | <u>napap-nax</u> | 'fly to the other side' |
| l. | <u>napap-tuk</u> | 'fly to the other side' |
| m. | <u>napap-tij</u> | 'fly above a particular spot' |
| | | |
| (96) a. | <u>ya:x?-mi:n?</u> | 'scream towards ego' |
| b. | <u>ya:x?-nüx</u> | 'scream away from ego' |
| c. | <u>ya:x?-ya?t</u> | 'scream nearby ego' |
| d. | <u>ya:x?-jamat</u> | 'scream to a specific place' |
| e. | <u>ya:x?-pet</u> | 'scream upwards' |
| f. | <u>ya:x?-ka?</u> | 'scream downwards' |
| g. | <u>ya:x?-tük+?i:y?</u> | 'scream inside s.th.' |
| h. | <u>ya:x?-pitzüm</u> | 'scream outwards' |
| i. | <u>ya:x?-yü?k</u> | 'scream away' |
| j. | <u>ya:x?-wimpit</u> | 'scream facing backwards' |
| k. | <u>ya:x?-nax</u> | 'scream when passing by' |
| l. | <u>ya:x?-tuk</u> | 'scream to the other side' |
| m. | <u>ya:x?-tij</u> | 'scream loudly.' |

Thus, the meaning of the combination V+DIR is predictable when the verb root involved may co-occur with the whole set of directionals. The examples shown in ((93) through (96) are clear illustrations of this point. In contrast, some other verb roots are able to co-occur with only a few of the members of the set in (76) and sometimes only with just one. Various of these complex stems exhibit meanings that cannot be predicted by the sum of the meanings of their components. The verbs stems in (97) are cases in which the directional suffix does not convey any clear path or trajectory followed by one of the participants involved

in the event. The diachronic facts that could explain why these combinations gave rise to these particular meanings have to be left for further research.

- (97) a. ni:+jan+kapx-pet 'report somebody'
misinform -DIR:up
- b. wa:nʔ-pet 'sue somebody'
want -DIR:up
- c. ko:-japan -pet 'slam (the door)'
BEN-make_noise-DIR:up
- d. ko:-ja:yʔ-pet 'register, take note'
BEN-write-DIR:up
- e. ko:-jü:yʔ-pet 'cry for someone'
BEN-cry -DIR:up
- f. ʔaw+jup-pet 'close, lock up'
uncover-DIR:up
- g. ʔaw+tzoʔ-pet 'lock up'
close -DIR:up
- h. mon -kaʔ 'quiet down, calm down'
be_quiet-DIR:down
- i. nax -kaʔ 'get weak, wrinkle'
cross-DIR:down
- j. ʔaw- juy-tuk 'buy everything'
MOUTH-buy-DIR:cross
- k. ʔaw- tzüm -tuk 'block the flow'
MOUTH-carry-DIR:cross
- l. mo:yʔ-nax 'give extra'
give -DIR:cross

The directional -kaʔ 'down' has also developed an aktionsart (mode of action) phasal meaning when it follows

some verbs of consumption, destruction, and motion. The morpheme -kaʔ following this group of verbs indicates that the process is being carried out up to a point in which all the entities referring to the theme are completely consumed, destroyed or moved. A similar function is shared by the suffix -jo:y glossed as 'ALL', which will be discussed later.

- (98) a. tziʔtz-kaʔ 'suck everything'
suck -DIR:down
- b. kay-kaʔ 'eat all of it'
eat-DIR:down
- c. ʔu:k -kaʔ 'drink it all down'
drink-DIR:down
- d. toy -kaʔ 'get completely burnt'
burn-DIR:down
- e. yak- jo:y -kaʔ 'ruin all'
CAUS-loose-DIR:down
- f. yak- ʔo:k-kaʔ 'kill all of them'
CAUS-die -DIR:down
- g. puʔtz -kaʔ 'totally rot'
be_ rotten-DIR:down
- h. tüʔtz-kaʔ 'dry everything'
dry -DIR:down
- i. mü:- nüx-kaʔ 'carry everything'
ASSOC1-go -DIR:down
- (99) a. ʔiʔu:kaʔuk ʔampanü:jü
ʔi= ʔu:k -kaʔ -u =k ʔampa+nü:
A3(ERG)=drink-DIR:down-COMI=AN liquor
'He drank down all the liquor.'

- b. ?iyak?o:ka?uk nija?mej piyuwo?k
 ?i= yak+?o:k-ka? -u =k nija?mej
 A3(ERG)=kill -DIR:down-COMI=AN all

 piyu -wok sa:ra
 chicken-DIM Sara
 'Sara killed all the chickens.'
- c. ka?ye:kpa cha?aj yakompa? tü?ska?pa
 ka:=ø= ye:k-pa cha?aj ø= yak- kom
 NEG=B3 (ABS)=grow-INCI.I what B3 (ABS)=PASS-plant

 -pa+? ø= tü?tz-ka? -pa
 -NF B3 (ABS)=dry -DIR:down-INCI.I
 'It doesn't grow. All that is planted gets dry'
 {C2/45/62}
- d. jemxü ?itoyka?i kü:kpi je?k ko?yaj
 je?+mü=xü ?i= toy -ka? -i
 there =EV A3 (ABS)=get_burnt-DIR:down-COMD

 kü:k -pi je? =k ko?yaj
 hollow-LOC that=AN devil
 'The devil got completely burnt inside the cave.'
 {diabl/110}
- e. ?iyakjo:yka?u tankama ?iyakjüntziyu ja?
 ?i= yak+jo:y-ka? -u tan= kama
 A3(ERG)=ruin -DIR:down-COMI A1(PSR)=corn_field

 ?i= yak- jün -tzi:y?-u ja?
 A3(ERG)=CAUS-fire-stick -COMI 3AN
 'He ruined all my corn plantation because he lit
 it on fire.' {mil/334}

To sum up, the third paradigm of directional suffixes in Olutec is formed by thirteen elements. All of them grammaticalized from motion verbs occurring in nuclear serial verb constructions. Among the three directional paradigms of the language, the third set is the most complex

semantically. The semantic features contained in the other two paradigms are also present in the third one.

Directionals convey the trajectory of the theme of verbs that entail motion of some sort. When directionals occur with verbs of locution, perception, emission, and excretion, they signal the trajectory of the gaze, sound, smell, light, or excretion that is part of the semantics of this set of verbs. The entity referring to the gaze, sound, smell, light, or excretion is not treated as part of the core arguments of this set of verbs.

Directionals of the third set have many of the formal and semantic characteristics found in the directional systems of Mayan languages. Nevertheless, the Olutec directional system is not as elaborated as the systems found in the languages of the Tzeltalan, Kanjobalan and Mamean branches of the Mayan family. The following are some of the characteristics that are well developed in Mayan but are absent in Olutec. First, Olutec does not allow strings of directionals following one predicate. In contrast, combinations of directionals following all types of predicates are common in Mayan. Second, directionals in Olutec cannot be suffixed to non-verbal predicates, adpositions, or copulas. This restriction is not found in Mayan. Third, only one directional in Olutec (ka? 'down')

has developed aktionsart meaning whereas several of them have developed such meanings in Mayan languages. Fourth, the comparison of the frequency of predicate tokens suffixed by directionals in Mayan and Olutec narrative texts makes clear that the use of directionals in Olutec is very limited. A full 30% of the predicates bear directionals in Jakaltek Maya, but only 1% do in Olutec. All of these differences suggest that the directional systems of Mayan languages are older than the third set of directionals in Olutec (and the rest of Mixe-Zoquean languages.) I am suggesting that the Mixe-Zoquean languages only had the first two sets of directionals that they inherited from PMZ before they established contact with Mayan languages. After the areal contact occurred, Mixe-Zoquean also developed directionals of the Mayan type. What we can observe synchronically are the remnants of the two older systems that are in the process of being replaced by a new one. There are a few examples in which a directional from the first set co-occurs in the same verbal stem with a directional of the third set. The examples in (100) illustrate verbal stems which include directionals of both the first and the third set conveying the same semantic information.

- (100) a. yukchipippetu jünü
 ø= yuk-chipip-pet -u jün
 B3(ABS)=UP- spark -DIR:up-COMI fire
 'The fire was shooting sparks up.'
- b. ?iyuk?e:pete
 ?i= yuk-?e:p-pet -e
 A3(ABS)=UP- see -DIR:up-INCD
 'He is looking upwards.' (miel/24)
- c. yuk?ü:spetpa po:po?nü:jü
 ø= yuk-?ü:tz -pet -pa po:po?+nü:
 B3(ABS)=UP- throw_up-DIR:up-INCI.I milk
 'The milk's foam is bubbling up.'
- d. tanyukje?pxpetam tanta:najti
 tan= yuk-je?px-pet -am tan= ta:najti
 A1(ERG)=UP- hook -DIR:up-IRRI A1(PSR)=bag
 'I am going to hang up my bag.'

5. Manner Serialization and Aktionsart

There are at least ten serialized verbs that have grammaticalized as suffixes that describe the manner in which an event is performed. Serial verb constructions of this type are known in the literature as "manner serialization" (Durie 1997:336) or "adverbial serialization" (Bowden 1998:367). The aktionsart meaning coded by the ten serialized verbs are: intensification, complete affectedness, iteration, inception (ingression), perduration, repetition, delimitation, attenuation, and position in relative time. Some of the lexical sources that gave rise to the grammaticalized morphemes still exist as

main verbs in the language, while the verbal origin of some others can only be inferred on the basis of the position they take in the verbal stem. The list in (101) shows the paradigm of grammaticalized serial verbs, their meaning as lexical verbs when known, and their adverbial or aktionsart meaning.

(101) Adverbial and Aktionsart Grammaticalized Serial Verbs

<u>Lexical Source</u>	<u>Verb Meaning</u>	<u>Adverbial and/or Aktionsart Meaning</u>
<u>ʔo:k</u>	'die'	intensifier/total
<u>jo:y</u>	'get lost, lack'	complete affectedness
<u>ta:yʔ</u>	?	iterative/complete affectedness
<u>ti:yʔ</u>	?	iterative
<u>kay</u>	? 'eat'	iterative
<u>toj-pet</u>	'INSTR+ascend'	inceptive/ingressive
<u>ni:yʔ</u>	?	perdurative
<u>pow</u>	?	repetitive
<u>ʔut</u>	?	delimitative/attenuative
<u>(y)úʔk</u>	'be born, come out'	first

5.1 The intensifier ʔo:k

The verb ʔo:k 'die' following another verb root indicates that the event was performed with intensity and/or several times. The gloss 'INTENS' for 'intensifier' instead of 'die' appears under the morpheme -ʔo:k in these contexts. Compare the following pairs of examples in which the same verb root appears with and without the suffix -ʔo:k.

- (102) a. jaʔk tanjayko ka:xi:kpaʔk
 jaʔ=k tan= jayko ø= ka:=xi:kʔ-pa =k
 DEF=AN A1(PSR)=sister B3(ABS)=NEG=laugh-INCI.I=AN
 'My sister does not laugh.' {rs6/44}
- b. ʔasta xi:kʔo:küxpa jaʔ
 ʔasta ø= xi:kʔ-ʔo:k -küx-pa jaʔ
 until B3(ABS)=laugh-INTENS-PL3-INCI.I 3AN
 'they even burst out laughing of laughter.'
 {rschl/285}
- (103) a. taxi:püp tanta:tzüʔk
 ta= xi:pʔ-ü -pa tan= ta:tzük
 B2(ABS)=itch -INV-INCI.I A1(PSR)=ear
 'My ear is itching.' {DICT}
- b. taxi:pʔo:künüw tanküxü
 ta= xi:pʔ-ʔo:k -ü -nü -w tan= küxü
 B2(ABS)=itch -INTENS-INV-already-COMI A1(PSR)=body
 'My body was really itchy.'
- (104) a. taʔe:pe jaykaʔk jeʔk ʔiʔunaʔk
 ta= ʔe:p-e jaykak jeʔ =k ʔi= ʔunak
 C3(ERG)=see -INCD people that=AN A3(PSR)=offspring
 'His son is observing the people.' {olu28/692}
- b. taʔe:pʔo:ke ʔixuʔni
 ta= ʔe:p-ʔo:k -e ʔi= xuʔni
 C3(ERG)=see -INTENS-INCD A3(PSR)=dog
 'He is staring at his dog.' {rschl/530}
- (105) a. naʔkxej taxwaʔne ʔi:tzümü tzuʔchi
 naʔkxej tax= wa:nʔ-e ʔi:tzümü tzuʔchi
 when C1(ERG)=want -INCD pig meat
 'When I want pork [...]' {rspf2/532}
- b. ʔoyame:k tanxuʔni taxyakchi:wi taxwanʔo:ki
 ʔoyamej =k tan= xuʔni tax= yak- chi:wʔ-i
 properly=AN A1(PSR)=dog C1(ERG)=CAUS-bath -COMD
 tax= wa:nʔ-ʔo:k -i
 C1(ERG)=want -INTENS-COMD
 'I used to bath my dog very well, I really loved
 it.' {rs2/100}

- (106) a. ?inükxi tamote je? tzintza?y
 ?i= nüx-i ta= mot -e je? tzintzay
 A3(ABS)=go -INCD C3(ERG)=salt-INCD that intestine
 'He went to salt those intestines.' {DICT}
- b. je?k majawü ?imot?o:knüwak tzu?chi
 je? =k majaw ?i= mot -?o:k -nü -w =ak
 that=AN woman A3(ERG)-salt-INTENS-already-COMI=AN
 tzu?chi
 meat
 'The woman salted the meat a lot.' {DICT}
- (107) a. tojpojyüwa? ?en pu:ro poje tayak?o:ki ?itükaw
 ø= toj- poj+?i:y?-ü -w =ja? ?en pu:ro
 B3(ABS)=INSTR-kick -INV-COMI=3AN in only
 poj -e ta= yak- ?o:k-i ?i= tükaw
 kick-NMZR C3(ERG)=CAUS-die -COMD A3(PSR)=father
 'He kicked him. He killed his father by kicking
 him.' {rs8/50}
- b. je?k mu:küpa?na?awü ?itojpojy?o:kuk sa:ra
 ?i?awtzo? ?asta ke tyak?awa:tziko ja?
 je? =k mu:k+ü+pa+?-na?w ?i= toj- poj+?i:y?
 that=AN drunkard -AUGM A3(ERG)=INSTR-kick
 -?o:k -u =k sa:ra ?i= ?awtzo? ?asta ke
 -INTENS-COMI=AN Sara A3(PSR)=door until SUB
 ta= yak- ?aw+wa:tz?-i =koj ja?
 A3(ERG)=CAUS-open -COMD=just 3AN
 'The drunkard was kicking very hard at Sara's door
 until she opened it.'

5.2 Complete Affectedness: jo:y

The verb jo:y 'get lost, lack' following another verb root indicates that the theme or theme of the first verb is being completely affected. The meanings: 'all', 'for good',

'completely' and 'finish' are associated to serial verb constructions which include -jo:y as second member of the combination. The morpheme -jo:y is glossed as 'ALL' in these contexts. The pairs of examples that follow illustrate the semantic contribution of -jo:y serialized to intransitive verbs, (108b); transitive verbs, (109b-112b); and ditransitive verbs, (113b).

- (108) a. pos pitzümuk yaʔaj yowa mü:yüwawoʔk
 pos ø= pitzüm-u =k yaʔaj yowa
 and_so B3(ABS)=exit -COMI=AN this young

 mü:yüw -ʔawok
 thunder-DIM
 'And so, the little thunder children came out.'
 {rayo/79}
- b. pitzümjo:yü piyuwoʔk
 ø= pitzüm-jo:y-u piyu -wok
 B3(ABS)=exit -ALL -COMI chicken-DIM
 'All the chicks escaped.' {DICT}
- (109) a. taʔutüpak seme xkaye nü:skoʔke
 ta= ʔut -ü -pa =k seme
 B1(ABS)=like-INV-INCI.I=AN very

 tax= kay-e nü:tz -koʔke
 C1(ERG)=eat-INCD armadillo-fish
 'I really enjoy eating armadillo fish.'
 {viaj3/157}
- b. kuxwaʔ xkayjo:yü
 kux -w -aʔ tax= kay-jo:y-i
 finish-COMI-PERF C1(ERG)=eat-ALL -INCD
 'I finished eating everything.' {rs2/87}
- (110) a. segi:do tato:ki tu:ru
 segi:do ta= to:k-i tu:ru
 often C3(ERG)=sell-INCD bull
 'He used to sell bulls regularly.' {cafe/100}

- b. kuxuk pa:kaʔx tato:kjo:ye
 kux -u =k pa:kax ta= to:k-jo:y-e
 finish-COMI=AN cattle C3(ERG)=sell-ALL -INCD
 'He finished selling all the cattle.' {vg3/261}
- (111) a. niʔtiʔk ʔuxüp maye tyakʔo:ke jaytzuʔ
 niʔtik ʔuxüw+pi maye ta= yak-ʔo:k-e jaytzuʔ
 all afternoon TEMP C3(ERG)=CAUS-die-INCD deer
 'He used to kill deers all afternoons.'
 {olu28/147}
- b. mi:s tej pekeʔ minyakʔo:kjo:ype tantu:ru
 mi:tz tej pek =jeʔ
 you ADM trully=CLEFT
- min= yak- ʔo:k-jo:y-pe tan= tu:ru
 A2(ERG)=CAUS-die -ALL -INCI.T A1(PSR)=bull
 'You are the one who is killing all my bulls.'
 {C7/94/30}
- (112) a. pün ʔijuyu mina:xütekü
 pün ʔi= juy-u min= na:x -tek
 who A3(ERG)=buy-COMI A2(PSR)=earth-PL.SAP
 'Who bought your land?' {vg3/386}
- b. pa:kaxʔaxüpaʔtük tuminʔaxüpaʔtük tajuyjo:yküxi
 na:xütük
 pa:kax+ʔax+ü+pa+ʔ+tük tumin+ʔax+ü+pa+ʔ+tük
 ranchers rich_people
- ta= juy-jo:y-küx-i na:xü-tük
 C3(ERG)=buy-ALL -PL3-INCD land -PL
 'The ranchers, the ones who have money (the rich
 ones) are buying all the pieces of land.'
 {C10/53/33}
- (113) a. tajoʔnaʔxünüwak ʔo:m me:nyu
 ta= joʔn -aʔx -ü -nü -w =ak ʔo:m
 B1(ABS)=steal-APPL1-INV-already-COMI=AN INTERJ
- me:nyu
 money
 'Gee!, he stole money from me.' {DICT}

- b. tajoʔnjo:yaʔxünüwaʔ me:nyu
 ta= joʔn -jo:y-aʔx -ü -nü -w =jaʔ
 B1 (ABS)=steal-ALL -APPL1-INV-already-COMI=3AN
- ʔo:m me:nyu
 INTERJ money
 'Gee, he stole all my money!' {DICT}

5.3 Iterative or Complete Affectedness: ta:yʔ

The third suffix with manner adverbial meaning is -ta:yʔ. Although the etymology of this morpheme is uncertain, its position and the meaning it bears make it an unquestionable grammaticalized serial verb. This suffix has two different readings depending on the inherent temporal properties of the verb with which it co-occurs. The first reading occurs when -ta:yʔ is suffixed to activity atelic verbs (verbs that depict states of affairs without an inherent terminal point.)⁸ With this set of verbs, the suffix indicates that the event is performed in intervals, over and over again, here and there. The gloss ITER 'iterative' appears under this suffix in these contexts.

(114) Iterative with Atelic Verbs

- a. tya le:na koʔtzowtaypa:keʔ pro:we para ʔikayaʔn
 tya le:na ø= koʔ+tzow-ta:yʔ-pa =k =jeʔ
 aunt Lena B3(ABS)=request -ITER -INCI.I=AN=that
 pro:we para ʔi= kay+an
 poor for A3(PSR)=food
 'Aunt Lena, the poor one, she asks (for money)
here and there for her food.' {aand/258}
- b. porke tankeptaypek jaʔaj weka
 porke tan= kep -ta:yʔ-pe =k jaʔ weka
 because A1(ERG)=look_for-ITER -INCI.T=AN DEF frog
 'I am looking for the frog here and there.'
 {idl/282}
- c. nükxpa xja:xtaʔe
 nükx-pa tax= ja:x -ta:yʔ-e
 go -INCI.I C1(ERG)=touch-ITER -INCD
 'I am going to be touching and touching.' {id3/59}
- d. taxchi:wtaʔe yaʔmej
 tax= chi:w -ta:yʔ-e yaʔmej
 C1(ERG)=put_hand_inside-ITER -INCD like_this
 'I was digging and digging like this (removing the
 mud that was covering the tire of the car.)'
 {lm2/259}
- e. ʔiya:xtaype jaʔ
 ʔi= ya:xʔ-ta:yʔ-pe jaʔ
 A3(ERG)=bark -ITER -INCI.T 3AN
 '(The dog) is barking and barking.' {rschl/609}
- f. ʔe:ptaypa jeʔ mu:xi
 ø= ʔe:p-ta:yʔ-pa jeʔ mu:xi
 B3(ABS)=see -ITER -INCI.I that bird
 'The bird is looking here and there.' {rsch2/281}
- g. ʔixu:ktayuk jeʔ wo:lsa
 ʔi= xu:k -ta:yʔ-u =k jeʔ wo:lsa
 A3(ERG)=smell-ITER -COMI=AN that bag
 'He was sniffing inside that bag.' {rsch2/499}

The second reading is attested when -ta:yʔ is suffixed to accomplishment and achievement telic verbs (verbs that convey states of affairs that lead up to a well-defined terminal point.) With this set of verbs, the suffix adds the meaning of complete affectedness. The gloss ALL appears under -ta:yʔ in these contexts.

(115) Complete Affectedness with Telic Verbs

- a. kü:stayu tantuku
 ø= kü:tz-ta:yʔ-u tan= tuku
 B3(ABS)=split-ALL -COMI A1(PSR)=cloth
 'All my clothes were torn apart.'
- b. ʔa:wa:sta:nyüw tükü
 ø= ʔaw+wa:tzʔ-ta:yʔ-nü -w tük
 B3(ABS)=open -ALL -already-COMI house
 'The house was completely open.'
- c. ʔusta:yu ja:rrunaʔk
 ø= ʔutz-ta:yʔ-u ja:rru-nak
 B3(ABS)=fill-ALL -COMI jar -DIM
 'The jar got completely filled up.'
- d. chaʔmta:yu kama
 ø= chaʔm -ta:yʔ-u kama
 B3(ABS)=be_pale-ALL -COMI cornfield
 'The whole cornfield became yellow.'
- e. jokoxta:nyüw nü:jü
 ø= jokox -ta:yʔ-nü -w nü:
 B3(ABS)=be_hot-ALL -already-COMI water
 'All the water got hot.'
- f. keʔxtayküxu piyunaʔk
 ø= keʔx -ta:yʔ-küx-u piyu -nak
 B3(ABS)=appear-ALL -PL3-COMI chicken-DIM
 'All the chickens appeared.'

- g. pu:tzta:yu ma:nku
 ø= pu:tzʔ-ta:yʔ-u ma:nku
 B3 (ABS)=rot -ALL -COMI mango
 'All the mangoes rotted.'
- h. toyta:nyüw küpi
 ø= toy -ta:yʔ-nü -w küpi
 B3 (ABS)=burn-ALL -already-COMI firewood
 'All the firewood got burnt.'
- i. tankaʔsta:yu yaʔaj küyü
 tan= kaʔtz-ta:yʔ-u yaʔaj küyü
 A1 (ERG)=cut -ALL -COMI this wood
 'I cut all the wood.'
- j. tükxpa pujtaypaʔ jiʔpitej
 ta= nüx-pa puj -ta:yʔ-pa+ʔ
 B1 (ABS)=go -INCI.I wash-ALL -NF
 jiʔpitej
 over there
 'I am going to wash all the dishes over there.'
 {aand/101}

5.4 Iterative: ti:yʔ

The fourth aspectual suffix within this set is the iterative marker -ti:yʔ. Although this suffix does not have a cognate form within the inventory of Olutec synchronic verbal roots, there are two indications that it grammaticalized from a serialized verb. First, it occupies the same slot as other serialized verbs, and second, it conveys an aspectual meaning that generally grammaticalizes from verbs (cf. Bybee et al 1994). The suffix -ti:yʔ indicates that the action portrayed by a verb is repeated

over time or in several places. Compare the following two pairs of examples. The verbs in (116b) and (117b) include the iterative suffix.

- (116) a. tawü:ntakminij pro:we ta?una?k tawü:nij
 tan= wü:n-tak -mi:n?-i -j pro:we
 A1 (ABS)=pull-LNKR-come -INCD-INVD.I poor

 tan= ?unak tan= wü:n-i -j
 A1 (PSR)=offspring A1 (ABS)=pull-COMD-INVD.I
 'My poor daughter came pulling me along. She was pulling me.' {aandb/208-9}
- b. tawü:ntiyiya?
 tan= wü:n-ti:y?-i -y =ja?
 A1 (ABS)=pull-ITER -COMD-INVD.C=3AN
 'He was tugging me a lot.' {burdel/140}
- (117) a. wa?kpak tükwimpi
 ø= wa?k-pa =k tük -win-pi
 B3 (ABS)=walk-INCI.I=AN house-top-LOC
 'Is he walking on the top of the houses?'
 {rschl/505}
- b. tantukmün ja:koj tanwa?kti?i
 tan= tukmüm ja?=koj tan= wa?k-ti:y?-i
 A1 (PSR)=alone DEF=just A1 (ABS)=walk-ITER -INCD
 'I am walking by myself here and there, only this.' {olu28/437}

With verbs with inherent punctual aspect, the iterative indicates that action is repeated on more than one occasion.

- (118) a. jeʔ ʔu:rak majawü ʔixiʔk ʔikawüwtiʔ
 jeʔ ʔu:ra=k majaw ʔix+ʔi:yʔ-i =k
 that hour =AN woman begin -COMD=AN
 ʔi= kawüw-ti:yʔ-i
 A3(ABS)=nod -ITER -INCD
 'That's when the woman began nodding and nodding.'
 {rsch2/149}
- b. pero jeʔk yowa mü:yüwawokü je:pxük ʔijapantiʔ
 pero jeʔ =k yowa mü:yüw -ʔawok jeʔ+pi=xü=k
 but that=AN young thunder-DIM there =EV=AN
 ʔi= japan-ti:yʔ-i
 A3(ABS)=boom -ITER -INCD
 'But those little thunders (the sons of Mr.
 thunder) were thundering and thundering over
 there.' {rayo/68}
- c. we:no semeko ʔitzakxtiʔ
 we:no seme=koj ʔi= tzakx -ti:yʔ-i
 well very=just A3(ABS)=crumble-ITER -INCD
 'Well, (the keyboard) is making a lot of noise.'
 {burdel/49}

With some activity verbal roots, the combination V+ti:yʔ
 gives repetitive punctual readings even though the verb root
 is not inherently punctual.

- (119) jeʔxük wiktör ʔimoto:pek ʔinapaptiʔ
 ʔitüküwaʔaʔspaʔaʔw
 jeʔ =xü=k wiktör ʔi= motow-pe =k
 that=EV=AN Victor A3(ERG)=hear -INCI.T=AN
 ʔi= napap-ti:yʔ-i ʔi= tük+waʔtz-paʔw
 A3(ABS)=fly -ITER -INCD A3(PSR)=hut -edge
 'Victor heard that something was flapping and
 flapping its wings at the edge of his hut.'
 {lm3/2}

Other activity verbs suffixed by -ti:y? do not receive punctual interpretation. Instead, the iterative indicates that the action is repeated over and over again for a certain period of time. It may also indicate that the action is performed with intensity, a meaning that is closely related to the previous one.

- (120) a. ?ixiyixü?k ?ixajti? je?k mu:xi
 ?ix+?i:y?-i =xü=k ?i= xaj -ti:y?-i
 begin -COMD=EV=AN A3(ABS)=stretch-ITER -INCD
 je? =k mu:xi
 that=AN bird
 'The bird began stretching and stretching (its wings.)' {rsch2/38}
- b. ?i?aw tu?k ?imuku:yti?k du:lseña?k
 ?i= ?aw tuk ?i= muku:y -ti:y?-i =k
 A3(PSR)=mouth one A3(ABS)=suck_up-ITER -INCD=AN
 du:lse-nak
 sweet -DIM
 'The mouth of one person is licking and licking the little candy.' {olu8/52}
- c. semekok ?iyokxti?a?n ja?k ko?ke
 seme=koj =k ?i= yokx-ti:y?-a?n ja?k ko?ke
 very=just=AN A3(ABS)=jump-ITER -IRRDEF=AN fish
 'The fishes are going to be jumping a lot.'
 {pesca/1117}
- d. jama:k yojwa ko?yajü tiwikak ?i?etze ?ipojti?
 jamaj=k yo?ojwa ko?yaj tüw+ik=ak
 that =AN man devil hard =AN
 ?i= ?etz -e ?i= poj -ti:y?-i
 A3(ABS)=dance-INCD A3(ABS)=kick-ITER -INCD
 'The devil was dancing very hard. He was stamping.' {diabl/64-6}

- e. jemak ?imukxti? jama:k ?owa
 je?+mü=ak ?i= mukx-ti:y?-i jamaj=k ?owa
 there =AN A3(ABS)=bite-ITER -INCD that =AN parrot
 'The parrot was giving several bites over there.'
 {duenyo/39}
- f. pero ta:ntok ?iwosti?k piyujaytzü? tamachi?ti
 pero ta:nto =k ?i= wotz-ti:y?-i =k
 but so_much=AN A3(ABS)=pull-ITER -INCD=AN

 piyu -jaytzü? ta= machi?t-i
 chicken-AUGM_FEM C3(ERG)=release-COMD
 'But because that the chicken was tugging and tugging, it escaped out of her.' {rspf2/74}
- g. ?ixutuna?a?w tyak?o:yti?
 ?i= xutu-na?w ta= yak- ?o:y -ti:y?-i
 A3(PSR)=ass -AUGM C3(ERG)=CAUS-twist-ITER -INCD
 '(The female tiger) was wiggling its big ass.'
 {olu27/84}
- h. pümpüne? pokxti:pa? jenkoj segi:do
 pün-pün =je? ø= pokx -ti:y?-pa+?
 who-probably=CLEFT B3(ABS)=knock-ITER -NF

 je?+mü=koj segi:do
 there =just often
 'Who knows who is the one who often knocks and knocks there.' {piojo/144}
- i. je? ?u:raxü?k na?wuna?k jane ?itajti?
 je? ?u:ra=xü=k na?aw -?unak jan-e
 that hour =EV=AN old_man-DIM lie-NMZR

 ?i= taj-ti:y?-i
 A3(ABS)=dig-ITER -INCD
 'At that time the little old man was pretending as he was digging and digging.' {desob/96}
- j. ma:sak ?ina?ma?mti?
 ma:s=ak ?i= na?ma?m-ti:y?-i
 more=AN A3(ABS)=mumble -ITER -INCD
 'He only mumbles and mumbles.' {rp2/430}

- k. jeʔkeʔ ʔiyoxe jaʔ jeʔjaʔ ʔiwi:kʔiʔ
 jeʔ =k =jeʔ ʔi= yox -e jaʔ jeʔ =jaʔ
 that=AN=CLEFT A3(PSR)=work-NMZR 3AN that=3AN
- ʔi= wi:k -ti:yʔ-i
 A3(ABS)=whistle-ITER -INCD
 'This is his work (of the traffic policeman), he
 keeps whistling and whistling.' {C1/1/3}
- l. mü:tak jama:k ʔikumpa:ne ma:sak ʔiʔe:ptiʔnyo
 mü:t=ak jamaj=k ʔi= kumpa:ne ma:s=ak
 and =AN that =AN A3(PSR)=friend more=AN
- ʔi= ʔe:p-ti:yʔ-nü -i
 A3(ABS)=see -ITER -already-INCD
 'And that friend of him was already looking here
and there.' {ropa/113}

The iterative with some motion verbs may also indicate that the action was performed during a long period of time in several places, or that the movement occurred over a period of time between two points in space.

- (121) a. porke tü:ytiʔam yaj tükü
 porke ø= tü:y-ti:yʔ-am yaʔaj tük
 because B3(ABS)=sway-ITER -IRRI this house
 'Because this house is going to shake from here to
there.' {ropa/186}
- b. tamü:waʔktiyuk wepü kopakjotpi
 tan= mü:- waʔk-ti:yʔ-u =k wew+pi
 A1(ERG)=ASSOC1-walk-ITER -COMI=AN there
- kopak -jot -pi
 mountain-innards-LOC
 'We walked together through various places in the
 highlands.' {aandc/223}

5.5 Iterative: -kay

The fifth member of the paradigm of serialized aspectual verbs is the morpheme -kay. This suffix also expresses iterative aspect and occurs with both static and dynamic verbs. The suffix -kay is homophonous with the verb kay 'eat'. More research has to be done in order to determine if there is any historical relation between the verb kay 'eat' and the iterative marker. Similar to the iterative -ti:yʔ, the suffix -kay indicates that the action portrayed by a verb is repeated over time or in several places. There is no clear difference in meaning between these two suffixes. Some verb roots take both iterative affixes without an apparent change in meaning. As an illustration consider the following examples with the verb napap 'fly'. In (122a) napap occurs without the iterative, while in (122b-c) the same verb root is followed by -ti:yʔ and -kay. Note that the same iterative meaning is maintained when the verb stem is combined with either of the two suffixes.

- (122) a. yukmü ʔinükxno napapaʔ
 yuk -mü ʔi= nükx-nü -e napap-pa+ʔ
 up_there-LOC A3(ABS)=go -already-INCD fly -NF
 'It is already going flying up there.' {rspf2/285}

- b. mü:t napapti:pak jeʔxük mu:xi
 mü:t ø= napap-ti:yʔ-pa =k jeʔ =xü=k mu:xi
 and B3(ABS)=fly -ITER-INCI.I=AN that=EV=AN bird
 'And that bird is fluttering.' {rsch2/88}
- c. napap kaypa totoʔk
 ø= napap-kay -pa totok
 B3(ABS)=fly -ITER-INCI.I butterfly
 'The butterfly is fluttering.' {DICT}

Positional roots, which encode states, may be suffixed by -kay. In these contexts the semantic reading of the stem implies that figure moves from one place to another maintaining the same position or shape.

- (123) a. tzu:tutkaypak le:ncho
 ø= tzu:tʔut-kay -pa =k le:ncho
 B3(ABS)=squat -ITER-INCI.I=AN Lencho
 'Lencho walks squatting here and there.' {DICT}
- b. semek ʔixatatkaye wü:niʔk
 seme=k ʔi= xatat -kay -e wü:nik
 very=AN A3(ABS)=short & fat-ITER-INCD type_of_wasp
 'The wasp is buzzing and buzzing.' {DICT}

Onomatopoeic and other sound symbolic roots are suffixed by -kay to indicate that the emission of the sound occurs more than once.

- (124) a. jaʔk ʔixi:na kawa:yu rrütüt kaypa seme
 jaʔ=k ʔi= xi:na kawa:yu
 DEF=AN A3(PSR)=chair horse
- ø= rrütüt -kay -pa seme
 B3(ABS)=noise_of_squeaking-ITER-INCI.I a lot
 'The saddle of the horse is squeaking a lot.'
 {C10/37/40}

- b. luʔpkaypa xuʔni ʔita:tzüʔk
 ø= luʔp -kay -pa xuʔni
 B3(ABS)=noise of wiggling-ITER-INCI.I dog
 ʔi= ta:tzük
 A3(PSR)=ear
 'The dog's ears wiggle a lot.' {DICT}
- c. lokotkayu le:ncho ʔipuʔpu
 ø= lokot -kay -u le:ncho
 B3(ABS)=noise of bubbling-ITER-COMI Lencho
 ʔi= puʔpu
 A3(PSR)=belly
 'Lencho's stomach made a lot of noise.' {DICT}

With verbs that have inherent punctual aspect, the iterative indicates that action is repeated in more than one occasion for a long period of time.

- (125) a. miʔkxkaypak le:ncho niʔixik kawa:yu
 ø= miʔkx-kay -pa =k le:ncho niʔixi=k
 B3(ABS)=blink-ITER-INCI.I=AN Lencho like =AN
 kawa:yu
 horse
 'Lencho blinks a lot like a horse.' {DICT}
- b. muʔtkaypa wa:xuʔk nü:jü
 ø= muʔt -kay -pa wa:xuk nü:
 B3(ABS)=spout-ITER-INCI.I sugar cane water
 'The sugar cane's juice is bubbling.' {DICT}

With activity motion verbs, the suffix indicates that the action is performed several times in the same spot or between two points in space.

- (126) a. jeʔxükü yaʔmek tajaweʔtkaye korone:l ʔila:tanakü
 jeʔ =xü=k yaʔmej =k ta= jaweʔt-kay -e
 that=EV=AN like_this=AN C3(ERG)=move -ITER-INCD
 korone:l ʔi= la:ta-nak
 colonel A3(PSR)=tin -DIM
 'That Colonel was shaking and shaking around the
 little tin like this.' {id3/601}
- b. jaʔmej jaykaʔk ʔijapititkaye
 jaʔmej jaykak ʔi= ja= pitit-kay -e
 in_that_way people A3(ABS)=MIRAT=turn -ITER-INCD
 'So that way the people are turning around many
 times.' {C10/65/113}
- c. ʔiʔixiyixüʔk tayakwititkaye ʔajanaʔaʔw
 ʔi= ʔix+ʔi:yʔ-i =xü=k
 A3(ABS)=begin -COMD=EV=AN
 ta= yak- witit-kay -e ʔaja -naʔw
 C3(ERG)=CAUS-turn -ITER-INCD canoe-AUGM
 'He began to turn around the big canoe in circles
 many times.' {C11a/36/605}
- d. katatkaypa xi:mu porke ʔu:ku jaʔ
 ø= katat-kay -pa xi:mu porke
 B3(ABS)=sway -ITER-INCI.I Simon because
 ø= ʔu:k -u jaʔ
 B3(ABS)=drink-COMI 3AN
 'Simon goes swaying from here to there because he
 drank.' {DICT}

5.6 Inceptive, Ingressive: -toj-pet

The derived transitive verb toj-pet [INSTR-ascend]
 'climb using something' has become an inceptive marker
 following both active and stative verb roots. The prefix
toj- is an instrumental applicative which adds an extra

argument to the verb valence. The intransitive motion verb pet 'ascend' prefixed by toj- results in the transitive verb toj-pet 'climb, get on the top of something, use something to ascend', as illustrated in (127b).

- (127) a. ʔipetik yukpi tükwimpi
 ʔi= pet -i =k yuk -pi tük -win-pi
 A3(ABS)=ascend-COMD=AN above-LOC house-top-LOC
 'He went up on the top of the house.' {ropa/203}
- b. jeʔ ʔu:raxüʔk pa:ne tatojpeti jeʔk tu:ru
 jeʔ ʔu:ra=xü=k pa:ne ta= toj-pet -i
 that hour =EV=AN priest C3(ERG)=INSTR-ascend-COMD
- jeʔ =k tu:ru
 that=AN bull
 'That's when the priest got on that bull.'
 {C20/100/31}

The combination toj+pet following another verb is used to indicate the beginning of a state (ingressive meaning) or a durative event (inceptive meaning.) The gloss INCEPT is given in both cases. The inceptive does not change the valence of the verb to which it is being suffixed in spite of the fact that its lexical source is a transitive verb. Intransitive verbs plus the inceptive stay intransitive, transitive verbs plus the inceptive stay transitive, and non-agentive bivalent verbs plus the inceptive stay bivalent. The pairs that follow illustrate intransitive state verbs with and without the inceptive suffix. Note that the V+INCEPT are inflected as intransitive, i.e., they take

the absolutive proclitic and the incompletive for intransitives -pa, as in (129b) and (131b).

- (128) a. jaytaʔnachiknaʔ chu:chunaʔk
 ø= jaytaʔna-chik-naʔ chu:chu-nak
 B3(ABS)=angry -DIM -ADJ child -DIM
 'The little children are angry.' {DICT}
- b. jeʔ ʔu:raxüʔk ʔijaytaʔnatojpeti yoʔjwa
 jeʔ ʔu:ra=xü=k ʔi= jaytaʔna-toj+pet-i
 that hour =EV=AN A3(ABS)=angry -INCEPT -COMD
 yoʔjwa
 man
 'That's when the man got angry.' {DICT}
- (129) a. ʔü:s tayoʔo:kpaʔmpoʔk
 ʔü:tz ta= yu:+ʔo:k -pa =ʔampok
 I B1(ABS)=be hungry-INCI.I=also
 'I am also hungry.' {rs4/155}
- b. seme tayoʔo:ktojpetnüp
 seme ta= yu:+ʔo:k -toj+pet-nü -pa
 very B1(ABS)=be hungry-INCEPT -already-INCI.I
 'I am already getting very hungry.' {mi2/54}
- (130) a. mimoʔtpa
 mi= moʔt -pa
 B2(ABS)=be crazy-INCI.I
 'You are crazy. [Who told you that shit is being bought here?]' {olu4/82}
- b. moʔtojpetu jaʔ
 ø= moʔt -toj+pet-u jaʔ
 B3(ABS)=be crazy-INCEPT -COMI 3AN
 'He got crazy.' {rp3/889}
- (131) a. ʔitzaʔutkükne jaʔkü
 ʔi= tza:yʔ+ʔut-kük-nü -i jaʔ=k
 A3(ABS)=be excited-PL3-already-COMD 3AN=AN
 '[They began to drink hard-liquor] and they were already very excited.' {vg2/97}

- b. ju?ka?n ?i+ ju?küxpe je?mü:t tza?utojpetpa ja?
 ju?k+an ?i= ju?k -küx-pe je?+mü:t
 tobacco A3(ERG)=smoke-PL3-INCI.T for_that
- ∅= tza:y?+?ut-toj+pet-pa ja?
 B3(ABS)=be_excited-INCEPT -INCI.I 3AN
 'They are smoking tobacco for that reason they are
 getting excited.' {16/55}

The inceptive following an activity intransitive verb is shown in (132).

- (132) ta?nük?iwa? chu:chuna?k witojpetwa? ja?
 ∅= ta?nük-?i:y?-w -a? chu:chu-nak
 B3(ABS)=big -INCH -COMI-PERF child -DIM
- ∅= wit -toj+pet-w -a? ja?
 B3(ABS)=walk-INCEPT -COMI-PERF 3AN
 'The little child has already grown up. He has
 begun to walk.' {DICT}

The use of inceptive expressing the beginning of events encoded by transitive verbs is illustrated in (133a-b). Note that the verb stem (V-INCEPT) is inflected as transitive, i.e., it takes the ergative proclitic referring to the agent and the incompletive for transitives -pe, as in (133b).

- (133) a. tankaytojpetam ya?aj kaya?n
 tan= kay-toj+pet-am ya?aj kay+an
 A1(ERG)=eat-INCEPT -IRRI this food
 'I am going to begin eating this food.' {DICT}

- b. myaktzaʔuttojpetpe lyoʔn porke tamoyuk ʔampanü:jü
 min= yak- tza:yʔ+ʔut-toj+pet-pe lyon
 A2(ERG)=CAUS-be_excited-INCEPT -INCI.T Leon
- porke min= mo:yʔ-u =k ʔan+pa+nü:
 because A2(ERG)=give -COMI=AN hard_liquor
 'You are the cause that Leon is getting excited,
 since you gave him liquor.' {DICT}

Examples of non-agentive bivalent verbs suffixed by the inceptive are shown in (134). The presence of the inverse suffix and the absolutive proclitic on the verb indicates that the verb is bivalent non-agentive.

- (134) a. mikumtojpeta:nüp
 mi= kum -toj+pet-an+ü+pa
 B2(ABS)=get_worms-INCEPT -INV+IRRI
 'You are going to begin getting worms.' {DICT}
- b. küjpitzümtojpetüw xikü ʔiʔa:kajem
 ø= küj- pitzüm-toj+pet-ü -w xikü
 B3(ABS)=APPL2-exit -INCEPT -INV-COMI mange
- ʔi= ʔa:ka-jem
 A3(PSR)=cheek-LOC
 'His cheek is getting mange.' {DICT}

5.7 The Perdurative: -ni:yʔ

The perdurative suffix -ni:yʔ, glossed as PERDUR, occurs with stative intransitive and transitive verbs to indicate that the "S" of intransitives or the "A" of transitives stays for a long period of time in the state or position predicated by the verb. The etymology of this

suffix is unknown, but its slot within the verb stem is an indication that it evolved from a serialized verb. The following two pairs of examples illustrate the semantic contribution of the perdurative suffix to intransitive verb roots. The suffix -ni:yʔ after the verb ʔe:p, in (135b), indicates that the perceiver stays in the same location staring at something for a long period of time.

- (135) a. mü: jamaj jaykakü ʔe:pa
 mü:t jamaj jaykak ø= ʔe:p-pa
 and that people B3(ABS)=see -INCI.I
 'And that people are looking.' {olu3/135}
- b. mente jama:k ja:tukaj ʔe:pni:pa jaʔ
 mente jamaj=k ja:+tuk+ʔaj
 while that =AN another_one
- ø= ʔe:p-ni:yʔ -pa jaʔ
 B3(ABS)=see -PERDUR-INCI.I 3AN
 'While the other one keeps staring.' {rsch2/217}

In (136b), the suffix -ni:yʔ after the verb yopop indicates that, at the reference time, the stones are already piled up and are expected to maintain the same arrangement for a long period of time. On the contrary, the suffix does not follow yopop when the portrayed situation is a temporary gathering of people around a fight, as in (136a).

- (136) a. yopopküxu jaʔ jaykaʔk porke ʔitpa tzukiʔn
 ø= yopop -küx-u jaʔ jaykak porke
 B3(ABS)=pile_up-PL3-COMI DEF people because
 ø= ʔit -pa tzukin
 B3(ABS)=exist-INCI.I fight
 'The people crowded around because there is a
 fight.' {DICT}
- b. mü:t paʔko tza:jü ʔiyopopniʔ
 mü:t paʔko tza: ʔi= yopop -ni:yʔ -i
 and a_lot stone A3(ABS)=pile_up-PERDUR-INCD
 'There are many stones piled up.' {rspf2/441}

The examples in (137) illustrate transitive verbs suffixed by the perdurative. In the transitive associative construction, the perdurative indicates that the two core participants stay in the same state, (137a), or position, (137b), predicated by the derived verb. In the causative construction, the perdurative indicates that the agent causes a theme to stay in a specific position or arrangement for a long period of time, as in (137c, d).

- (137) a. ma:sak tamü:ʔe:pniʔkoj
 ma:s=ak ta= mü: -ʔe:p-ni:yʔ -i =koj
 just=AN C3(ERG)=ASSOC1-see -PERDUR-INCD=just
 'They just keep looking.' {olu2/112}
- b. yaʔk yoʔojwa ʔimü:ju:ni:kotpek tuʔk majaw
 yaʔ =ak yoʔojwa ʔi= mü:- ju:n-ni:yʔ
 this=AN man A3(ERG)=ASSOC1-sit -PERDUR
 -kot -pe =k tuk majaw
 -together-INCI.T=AN one woman
 'This man is sitting together with one woman.'
 {rsch2/63}

- c. yamak tyakju:niʔaʔnej
 yaʔ+mü=ak tan= yak-ju:n-ni:yʔ -aʔn+e+j
 here =AN A1 (ABS)=CAUS-sit-PERDUR-INV+IRRD
 'He is going to make me sit here.' {aand/211}
- d. tanyakteniʔam jamaj komoʔm
 tan= yak- ten -ni:yʔ -am jamaj komom
 A1 (ERG)=CAUS-stand-PERDUR-IRRI that wooden_post
 'I am going to stand up the supports of the
 house.' {DICT}

Most of the predicates that take the perdurative suffix are positional roots. These roots conflate information about position or arrangement of an entity and physical characteristics associated with the same entity. The prototypical positions conveyed by these roots are: standing, sitting, lying, leaning, bending down, etc. The physical characteristics encoded by positional roots depict particular shapes or conditions of a figure that are visually prominent. The physical characteristics can be either inherent to the entity (human, animal, liquid, two-legged, big, short) or acquired (skinny, fat).

(138) Position plus physical characteristics:

- | | | |
|----|-------------------|---|
| a. | <u>te:nkej</u> | 'be standing (a skinny person)' |
| b. | <u>kap</u> | 'be lying down (a large person)' |
| c. | <u>keʔxex</u> | 'be raising its wing (a bird)' |
| d. | <u>kotz+tekek</u> | 'be leaning on something (a person)' |
| e. | <u>paw</u> | 'be standing (a two-legged entity)' |
| f. | <u>kü:yʔ</u> | 'be forming a puddle (liquid)' |
| g. | <u>mokotz</u> | 'be sitting (a fat person)' |
| h. | <u>nuʔj</u> | 'be with head bowed (a bit short and fat person)' |

- i. pe:x 'be face down, lie on chest (a person)'
- j. koj+tekek 'be leaning (a person)'
- k. tekek 'be standing with the arms at the waist and chest out (a person)'
- l. we?kek 'be standing with legs spread (a person)'
- m. ku?n 'be seating with head bowed (a person)'
- n. po?xix 'be seating sadly (a person)'
- o. nüp 'be bending down (a person)'
- p. pu?x 'be kneeling (a person)'

Examples of some of these roots followed by the perdurative are:

- (139) a. jemak ?ite:nkejni:küxi
 je?+mü=ak ?i= te:nkej -ni:y? -küx-i
 there =AN A3(ABS)=stand_&_skinny-PERDUR-PL3-INCD
 '(The two skinny guys) are standing there.'
 {ropa/226}
- b. pe:xni:pa nitu:tüj
 pe:x -ni:y? -pa ni -tu:t?-ü -j
 lie_on_chest-PERDUR-INCI.I RFLX-put -IMPR-INVD.I
 'Lie on your chest!' {id3/192}
- c. nüpni:pakü semekok ?o:pi?k ?iküjpitzümi? ?i?a:p
 ø= nüp -ni:y? -pa =k seme=koj =k
 B3(ABS)=bend_down-PERDUR-INCI.I=AN very=just=AN
 ?o:p+ik ?i= küj- pitzüm-i -j
 foam A3(ABS)=APPL2-exit -INCD-INVD.I
 ?i= ?aw -pi
 A3(PSR)=mouth-LOC
 'He is bent down, a lot of foam is coming out of his mouth.' {rp3/694}

The semantic information conveyed by a second group of positional roots is only related to the physical

characteristics of the figure, i.e., the information about the position of the figure is left unspecified. For instance, the root maʔtz 'big and bulky' does not carry any semantic information about position. The fact that the person is sitting, lying or standing is not specified by the positional predicate but by the referential properties of the figure, as in (140a-b); by the discourse context, as in (140c-d); or by another positional root that bears explicit information concerning position, as in (140e).

- (140) a. jem ʔimaʔsniʔ yuʔkunaʔk
 jeʔ+mü ʔi= maʔtz -ni:yʔ -i
 there A3(ABS)=big_and_bulky-PERDUR-INCD

 yuʔk-ʔunak
 pot -DIM
 'The little fat pot is (sitting) there.' {cafe/43}
- b. je:pak wekak ʔimaʔsniʔ
 jeʔ+pi=ak weka=k
 there =AN frog=AN

 ʔi= maʔtz -ni:yʔ -i
 A3(ABS)=big_and_bulky-PERDUR-INCD
 'The frog was there (lying)' {zopil/184}
- c. jenkok ʔimaʔsniʔi ka:pukujpa jaʔ
 jeʔ+mü=koj =k ʔi= maʔtz -ni:yʔ -i
 there =just=AN A3(ABS)=big_and_bulky-PERDUR-INCD

 ø= ka:=pukuj-pa jaʔ
 B3(ABS)=NEG=move -INCI.I 3AN
 'He (a big man) is just there (standing.) He
 doesn't move.' {lm4/33}

- d. jemak ?ima?snɪ? ni?ixi tu?k kuyko?pa?k ka?pukujpa
ja?
- je?+mü=ak ?i= ma?tz -ni:y? -i ni?ixi
there =AN A3(ABS)=big_and_bulky-PERDUR-INCD like
- tuk kuy+ko?pak ø= ka:=pukuj-pa ja?
one log B3(ABS)=NEG=move -INCI.I 3AN
'Over there he is seated like a big log, he does
not move.' {C19/8/89}
- e. ma?snɪ:pak ?iju:ni?
ma?tz -ni:y? -pa=k ?i= ju:n-ni:y? -i
big_and_bulky-PERDUR-NF=AN A3(ABS)=sit-PERDUR-INCD
'He (a big a fat person) is seated.' {DICT}

The following is a list of positional roots primarily
encoding physical characteristics.

(141) Physical characteristics primarily:

- | | | |
|----|-------------------|------------------------------------|
| a. | <u>?awük</u> | 'be with the mouth open' |
| b. | <u>?a:xi+ten</u> | 'be with the hairs straight up' |
| c. | <u>?oxow</u> | 'be ruffled' |
| d. | <u>ko?+ma?chi</u> | 'be hardheaded' |
| e. | <u>ko?+wa?tz</u> | 'be baldheaded' |
| f. | <u>ju:yuy</u> | 'be skinny' |
| g. | <u>pakü</u> | 'be skinny' |
| h. | <u>jü:wü?</u> | 'be thin' |
| i. | <u>küm</u> | 'be big and lumpy' |
| j. | <u>püj</u> | 'be fat' |
| k. | <u>püjtzük</u> | 'be pot-bellied' |
| l. | <u>ma?chi?</u> | 'be stout and big' |
| m. | <u>tü:rün</u> | 'be fat (human), big (tree, pole)' |
| n. | <u>ma?tz</u> | 'be big and bulky' |
| o. | <u>monon</u> | 'be with eyes bulging' |
| p. | <u>tejchi</u> | 'be a entity with a pug-nose' |

Examples of positional roots of the second set followed
by the perdurative suffix are given below. Note that in all

of these cases the discourse context provides the clues to determine the position of the figure. In (142a), the snake, described as a puffed-up entity, stood up before attacking. In (142b), the fer-de-lance, described as a fat snake, was resting in a coiled position. And in (142c), the speaker ordered the hearer, described as a fat person, to stay lying down.

- (142) a. jaʔk taʔe:pu tzanaʔy jem ʔiʔoxowniʔ
 jaʔ=k tan= ʔe:p-u tzanay jeʔ+mü
 DEF=AN A1(ERG)=see -COMI snake there

 ʔi= ʔoxow -ni:yʔ -i
 A3(ABS)=ruffled-PERDUR-COMD
 'I saw the snake there, it puffed up.' {iguana/73}
- b. jaʔxüʔk tuʔk ʔi:pxtü:xi püjninyüp jem
 jaʔ=xü=k tuk ʔi:px+tü:xi
 DEF=EV=AN one fer-de-lance

 ø= püj-ni:yʔ -nü -pa jeʔ+mü
 B3(ABS)=fat-PERDUR-already-INCI.I there
 'The fer-de-lance was already coiled up there.'
 {iguana/42}
- c. jenkoj kümnüʔ
 jeʔ+mü=koj küm -ni:yʔ -ü
 there =just big_and_lumpy-PERDUR-IMPR
 'You (big and lumpy person) stay there lying
 down.' {vg/332}

There is a third set of positional roots. They describe the position of a figure without bearing any other selectional restriction on the type of entity functioning as subject of such predicates. Since positional roots of the

third set convey position only, they are clearly distinguished from the other two sets. The members of the first set, shown in (138), conflate position and physical features, while the members of the second set, shown in (141), describe mainly physical characteristics. For instance, the root te:nkej of the first set can be used only in a situation in which the standing figure is a skinny human being, as in (139a). In (140c), the root maʔtz, of the second set, is used to specify that the person located in space is 'big and fat'. The fact that such a person is standing is inferred from the discourse context. In contrast, the root ten, of the third set, is used to describe a situation in which an entity is in an upright position, leaving aside any specification on animacy, weight or shape of the entity involved in such a situation. The various examples in (143) illustrate this. The entity whose position is being described is a human being in (143a), a dog in (143b), a frog in (143c), a bird in (143d), and a tree in (143e).

- (143) a. taxmotowikaj dejde jumü mintüni?
 tax= motow -i -k -?aj
 C1(LOCAL)=listen_to-INCD-INV.LOCAL-NMZR
- dejde jumü min= ten -ni:y? -i
 from where A2(ABS)=stand_up-PERDUR-INCD
 '(Thank you very much dear little father) for
 listening to me from the place where you are
 standing.' {rs2/13}
- b. je?k ?ixu?ni yamak ?itüni?
 je? =k ?i= xu?ni ya?+mü=ak
 that=AN A3(PSR)=dog here =AN
- ?i= ten -ni:y? -i
 A3(ABS)=stand_up-PERDUR-INCD
 'His dog is standing up right here.' {rschl/554}
- c. tukak ta?nükaj weka mü:tak tu?k chu:chu?aj weka
 ?ipa?a?m ?itüni?
 tuk=ak ta?nük+?aj weka mü:t=ak tuk chu:chu+?aj
 one=AN big frog and =AN one small
- weka ?i= pa?w-mü ?i= ten -ni:y? -i
 frog 3(PSR)=edge-LOC A3(ABS)=stand_up-PERDUR-INCD
 'A big frog and a small frog are near the shore.'
 {rschl/691}
- d. ja:je?k ju?kü kuywimpik ?itüni?k
 ja?=je? =k ju?k kuy -win-pi =k
 DEF=CLEFT=AN owl tree-top-LOC=AN
- ?i= ten- -ni:y? -i =k
 A3(ABS)=stand_up-PERDUR-INCD=AN
 'That is the owl which is on the top of the tree.'
 {rschl/625}
- e. tüniyuxü tu?k kuyü ?itukmün
 ø= ten -ni:y? -u =xü tuk kuy
 B3(ABS)=stand_up-PERDUR-COMI=EV one tree
- ?i= tukmüm
 A3(PSR)=alone
 'It is said that a tree stood up by itself.'
 {milagro/2}

The following is a list of positional roots that primarily encode position:

- (144) Position primarily:
- | | | |
|----|-------------------|--|
| a. | <u>chikiw</u> | 'be hanging on a tree' |
| b. | <u>tilin</u> | 'be hanging' |
| c. | <u>chinkoj</u> | 'be on all fours' |
| d. | <u>na:x+pe:x</u> | 'be chest down, face down' |
| e. | <u>jup</u> | 'be leaning, lay on one's stomach' |
| f. | <u>pam</u> | 'be standing up' |
| g. | <u>ten</u> | 'be standing up straight' |
| h. | <u>tzɔ:t</u> | 'be seating' |
| i. | <u>ju:n</u> | 'be seating' |
| j. | <u>koʔ+niʔt</u> | 'be crouched down' |
| k. | <u>koʔp</u> | 'be bending down' |
| l. | <u>koxo+ten</u> | 'be kneeling' |
| m. | <u>wüʔm</u> | 'be with head lowered' |
| n. | <u>moʔtzotz</u> | 'be curled up' |
| o. | <u>kuʔnuʔtz</u> | 'be curled up, squatted down' |
| p. | <u>kup</u> | 'be squatted down with the narrowest part up' |
| q. | <u>tzɔ:tʔ+ʔut</u> | 'be squatted down' |
| r. | <u>meʔt</u> | 'be pressed' |
| s. | <u>neʔk</u> | 'be folded' |
| t. | <u>niʔt</u> | 'be crouched' |
| u. | <u>xaj</u> | 'be with the arms (or branches) open' |
| v. | <u>xajwaʔ</u> | 'be with the arms (or branches) open pointing upwards' |
| w. | <u>wenkej</u> | 'be with the lower extremities open' |
| x. | <u>wej</u> | 'be with the legs spread' |

Additional examples of this third set of positional roots followed by the perdurative suffix are given below.

- (145) a. jemak ?itilini?k ?i?e:pka?i
 je?+mü ?i= tilin-ni:y? -i =k
 there A3(ABS)=hang -PERDUR-COMD=AN

 ?i= ?e:p-ka? -i
 A3(ABS)=see -DIR:down-COMD
 'He stayed over there hanging looking downwards.'
 {C11a/37/614}
- b. ya?me:k ?i?iti kaja?w jaytzü? jem ?ichinkojni?i
 ya?+mej =k ?i= ?it -i kajaw jaytzü?
 like_this=AN A3(ABS)=exist-COMD tiger AUGM_FEM

 je?+mü ?i= chinkoj -ni:y? -i
 there A3(ABS)=be_on_all_four-PERDUR-COMD
 'The female tiger was on all fours like this.'
 {C20/61/23}
- c. ?iyak ju:ni:pak xu?ni
 ?iyaj=k ø= ju:n-ni:y? -pa =k xu?ni
 here =AN B3(ABS)=sit -PERDUR-INCI.I=AN dog
 'The dog is sitting here.' {rschl/580}
- d. je?kü tzu:kunakü ji?mak tzu?tutni:pa kuyxutu?m
 je? =k tzu:k-?unak ji?maj=k
 that=AN mouse-DIM there =AN

 ø= tzu:t?+?ut-ni:y? -pa kuy -xutu-mü
 B3(ABS)=squat_down-PERDUR-INCI.I tree-ass -LOC
 'That little mouse was squatting at the foot of
 the tree.' {rspfl/478}
- e. je:pak ?ime?tni? pu?jotpi je?k pixtü?k
 je?+pi=ak ?i= me?t -ni:y? -i
 there =AN A3(ABS)=press-PERDUR-INCD

 pu? -jot -pi je? =k pixtü?k
 sand-inside-LOC that=AN flea
 'That flea is pressed inside the sand.' {piojo/69}

5.8 The Repetitive: -pow

The suffix -pow follows a verb root to indicate that an action or state occurs for a second time. The etymology of -pow is unknown.⁹ The adverbial meaning 'again' is added to the meaning of the predicate which precedes this suffix. The gloss REPET under this morpheme stands for 'repetitive'. The repetitive may follow both stative and dynamic verbs. Examples with stative verbs are:

- (146) a. tuʔk paʔma ʔiʔitpowno ʔa:münyaʔ mixtuʔn
 tuk paʔma ʔi= ʔit -pow -nú -e
 one pregnant A3(ABS)=exist-REPET-already-INCD

 ʔa:müʔi:yʔ+naʔ mixtun
 dirty cat
 'The dirty cat is already pregnant again.'
 {aand/55}
- b. jeʔmü:t tayowaʔipowaʔne:tko
 jeʔ+mü:t ta= yowa -ʔi:yʔ-pow -aʔn -e:t
 for_that B1(ABS)=young-INCH -REPET-IRR-PL.SAP

 =koj
 =just
 'That's why we are going to be young again.'
 {lm2/53}

Examples with dynamic verbs are:

- (147) a. ?ipitzümpowikok je?k ?ite:ku rri:w
 ?i= pitzüm-pow -i =koj =k je? =k
 A3(ABS)=exit -REPET-COMD=just=AN that=AN

 ?i= te:ku rri:w
 A3(PSR)=owner river
 'The spirit of the river just came out again.'
 {ropa/219}
- b. dejem ?inaxpowne:xük mu:küpa?
 de+jem ?i= nax -pow -nü -i =xü=k
 and_then A3(ABS)=cross-REPET-already-COMD=EV=AN

 mu:k+ü+pa+?
 drunkard
 'The drunkard already passed again.' {lm1/44}
- c. ?iyaktzi:pownüpkok ?ikafe?t
 ?i= yak- tzi:y? -pow -nü -pe =koj =k
 A3(ERG)=CAUS-hold_on-REPET-already-INCI.T=just=AN

 ?i= kafet
 A3(PSR)=coffee
 'He is already grabbing his cup of coffee again.'
 {rsch2/20}
- d. tanümpowamkoj ja:tu?k
 tan= nüm -pow -am =koj ja:- tuk
 A1(ERG)=tell-REPET-IRRI=just another-one
 'I am going to tell another one again.' {rayo/1}

The repetitive meaning expressed by the suffix -pow may be expressed also by the adverb jutztüki 'again'. The adverb may appear as a free standing word, as in (148a), or as an incorporated element on the verb, as in (148b). Examples (148b) and (149), coming from the same text, show the repetitive sense first expressed by the adverb jutztüki and latter by the suffix -pow.

- (148) a. justüki tankaʔtzam küpi
jutztüki tan= kaʔtz-am küpi
 again A1(ERG)=cut -IRRI wood
 'I am going to cut the wood again.' {DICT}
- b. mü:tak tajüstükituʔti na:xküʔxmü
 mü:t=ak ta= jutztüki-tu:tʔ-i na:x -küʔx-mü
 and =AN C3(ERG)=again -put -INCD ground-foot-LOC
 'And he is putting it again on the ground.'
 {rsch2/16}
- (149) mü:tak tatu:tpownokok na:xküʔxmü
 mü:t=ak ta= tu:tʔ-pow -nü -i =koj =k
 and =AN C3(ERG)=put -REPET-already-INCD=just=AN
 na:x -küʔx-mü
 ground-foot-LOC
 'And he is already putting it again on the
 ground.' {rsch2/21}

There is a third attested strategy to code the repetitive meaning: The adverb jutztüki and the suffix -pow may co-occur in the same clause, as the examples in (150) show.

- (150) a. tajüstükiyakʔutzpowkükikok kaʔka
 ta= jutztüki-yak-ʔutz-pow -kük-i =koj =k
 C3(ERG)=again -CAUS-fill-REPET-PL3-COMD=just=AN
 kaʔka
 basket
 'They filled the basket again.' {rspf1/303}
- b. pero tajüstükitzetpowuko yam
 pero ta= jutztüki-tzet-pow -u =koj yaʔ+mü
 pero B1(ABS)=again -squash-REPET-COMI=just here
 'But I bruised myself here again.' {vg/693}

- c. tajüstükiwimpitpownejkoj para tan na:xmü
 tan= jutztüki-wimpit-pow -nü -i =koj
 A1 (ABS)=again -return-REPET-already-COMD=just

 para tan= na:x-mü
 for A1 (PSR)=land-LOC
 'I went back to my land again.' {olu28/459}

The repetitive -pow, when appearing in complex clauses with an auxiliary followed by a main verb, may be suffixed to either of the two verbs. In both cases the scope of the repetitive is over the whole clause. In (151a) and (152a) the repetitive is suffixed to the auxiliary, while in (151b) and (152b) the repetitive is suffixed to the main verb.

- (151) a. ?ixi:powekok ?ixajti?
 ?ixi:y?-pow -e =koj =k
 begin -REPET-INCD=just=AN

 ?i= xaj -ti:y?-i
 A3 (ABS)=open_arms-ITER -INCD
 'He is just beginning to open his arms again.'
 {rsch2/22}
- b. je? ?u:ra ?ixiyi taxkompowe:tüskoj ?arro?s
 je? ?u:ra ?ix+?i:y?-i
 that hour begin -COMD

 tax= kom -pow -e -:t -ütz =koj ?arrotz
 C1 (ERG)=plant-REPET-INCD-PL.SAP-EXCL=just rice
 'That's when we began planting rice again.'
 {olu28/358}

- (152) a. nüxpowiko takepe ja:tuk kuyü
 nüx-pow -i =koj ta= kep -e
 go -REPET-COMD=just C3(ERG)=look_for-INCD

 ja:- tuk kuy
 another-one stick
 'He went again to look for another stick.'
 {rspf1/612}
- b. ?inükxi ta?ixna:pownoko pu?tzükwimpi
 ?i= nüx-i ta= ?üx+na:w-pow -nü
 A3(ABS)=go -COMD C3(ERG)=throw -REPET-already

 -i =koj pu?tzük-win-pi
 -COMD=just garbage-top-LOC
 '(The man) went to throw (his child) again on top
 of the garbage.' {rschl/45}

5.9 The Attenuative: -?ut

The verbal suffix -?ut indicates that the action or state portrayed by the verb is performed for a relatively short or bounded period of time. The etymology of -(?)ut is unknown. The gloss ATTEN under this morpheme stands for 'attenuative'. Grammatical morphemes coding similar meanings are also known as delimitative aspect markers (Dahl 1994:242) or aspect markers of limited duration (Bybee et al 1994:317). The attenuative may follow both stative and dynamic verbs.

- (153) a. tatüni:tziyutnoko takapxe:t
 ta= ten -ni:y? -tzi:y?-?ut -nü -i =koj
 B1 (ABS)=stand-PERDUR-STAY -ATTEN-already-INCD=just
 tan= kapx-e -:t
 A1 (ABS)=talk-INCD-PL.SAP
 'Let's stop talking for a while.' {rs9/62}
- b. je? ?u:ra ?ixi:kükik ?itza?utkükne ja?kü
 je? ?u:ra ?ixi:y?-kük-i =k
 that hour begin -PL3-COMD=AN
 ?i= tza:y?-?ut -kük-nü -i ja?=k
 A3 (ABS)=roast -ATTEN-PL3-already-INCD 3AN=AN
 'That's when they began to get excited (drinking
 hard-liquor.)' {vg2/95}
- c. jamaj jüyta?ki tayaktza?utüw
 jamaj jüyta:k?+i ta= yak-tza:y?-?ut -ü -w
 that game B1 (ABS)=CAUS-roast-ATTEN-INV-COMI
 'That game got me overexcited.' {C7/44/48}
- d. tanmatz?utuko
 tan= matz -?ut -u =koj
 A1 (ERG)=touch-ATTEN-COMI=just
 'I just tapped her a little.' {DICT}
- e. ?ikayutuk nü:nü
 ?i= kay-?ut -u =k nü:nü
 A3 (ERG)=eat-ATTEN-COMI=AN tortilla
 'Meanwhile he ate tortillas.' {DICT}

5.10 To Be the First: -(y)ü?k

The verbal suffix -(y)ü?k has a quantitative meaning. It indicates that one of the participants of a verb is the first among other entities in performing an action or entering into a state. It may also signal that the event was

accomplished on time, before something else happened. The gloss 'FIRST' appears under -(y)ü?k in these contexts. This morpheme grammaticalized from the verb yü?k 'be born, get ready'. The morpheme -(y)ü?k may follow both stative and dynamic verbs.

- (154) a. je?ke? ?o:kü?ku
 je? =k =je? ø= ?o:k-yü?k -u
 that=AN=CLEFT B3(ABS)=die -FIRST-COMI
 'She was the first one who died.' {aand/645}
- b. je?pak majaw mi?oyü?küwa?
 je? =pak majaw mi= ?oy -yü?k -ü -w -a?
 that=ADM woman B2(ABS)=have-FIRST-INV-COMI-NMZR
 'That woman who you had first.' {deaa/123}
- c. ?entonses nija?mejko je? majaw mi?ityü?küwa?
 prime:ro
 ?entonses nija?mej =koj je? majaw
 then in_that_way=just that woman

 mi= ?it -yü?k -ü -w -a? prime:ro
 B2(ABS)=exist-FIRST-INV-COMI-NMZR first
 'Then, that woman who you have first.' {deaa/166}
- d. ta?ixna:wü?ku
 tan= ?üx+na:w-yü?k -u
 A1(ERG)=throw -FIRST-COMI
 'I threw it before it was expected.' {DICT}
- e. ?itujü?knüwa?
 ?i= tuj -yü?k -nü -w =ja?
 A3(ERG)=shoot-FIRST-already-COMI=3AN
 'He shot at it before it was expected.' {DICT}

6. From "Desire" to Future and Irrealis Modality

Similar to English, Danish, Tok Pisin and Inuit, Olutec has developed a future (and irrealis) marker from a desire verb (Bybee et al 1994:254-257). The development from the verb wa:nʔ 'want, love, desire' into a future marker took place not only in Olutec, but also in the rest of the languages of the Mixean branch (Kaufman 1996).¹⁰ The morpheme wa:nʔ has undergone both formal and semantic changes in its grammaticalization path from a lexical verb to an inflectional suffix. It is likely that a complex complement clause was the source out of which the future morpheme arose, i.e., a construction in which the embedded complement clause was followed by the matrix verb wa:nʔ.¹¹ Although this is the most likely diachronic scenario for such a development, there is no formal indication that the verb in first position was once embedded. Thus, synchronically, the sequence V-wa:nʔ shares the same formal properties with the rest of the core serialized constructions.

The various formal expressions of the grammaticalized verb wa:nʔ (glossed as 'IRR') are: -am, -a:m, -aʔn, -a:n, -an. Phonological reduction is one of the formal indications

that a morpheme has changed its status from a lexical root into a grammatical affix. There are phonological and historical reasons that explain the different manifestations of the irrealis suffix. The reconstructed Proto-Mixean complex constructions that gave rise to the various Olutec irrealis forms are given below:

(155)	<u>Proto-Mixe</u>	>	<u>Irrealis in Olutec</u>
a.	<u>V-wa:nʔ-pe</u> V-want -INCI.T 'Independent Direct Transitive'		<u>V-a:m</u> ~ <u>V-am</u> V-IRRI
b.	<u>V-wa:nʔ-pa</u> V-want -INCI.I 'Independent Intransitive'		<u>V-a:m</u> ~ <u>V-am</u> V-IRRI
c.	<u>V-wa:nʔ-jü -pa</u> V-want -INV-INCI.I 'Independent Inverse Transitive'		<u>V-a:nüp</u> ~ <u>V-anüp</u> V-INV+IRRI
d.	<u>V-wa:nʔ-e</u> V-want -INCD 'Dependent Direct'		<u>V-aʔn</u> ~ <u>V-an</u> ~ <u>V-a:n</u> V-IRRD
e.	<u>V-wa:nʔ-e -jü</u> V-want -INCD-INVD.I 'Dependent Inverse'		<u>V-aʔnej</u> V-INV+IRRD+INVD.I

Note that all the different forms of the irrealis suffix have dropped the initial consonant /w/.¹² The verb wa:nʔ, similar to the rest of verbal roots with the canonical shape CV:Cʔ, changes to CV(:)C before consonants, and to CVʔC before vowels. This explains the absence of the glottal stop

in (155a-c), and its presence in (155d-e). There is free alternation between long and short vowels in several of the grammaticalized forms. The final bilabial nasal in the forms -am ~ -a:m is a reflection of regressive assimilation of the alveolar nasal in contact with the labial of the incomplete suffix. This suffix was lost in both the independent direct transitive, (155a), and the independent direct intransitive, (155b). The suffix -e, which marks incomplete for dependent verbs, was lost in the irrealis for dependent verbs, (155d). The traces of an incomplete marker following wa:nʔ are a clear indication that the irrealis/future is a late development, that is, the aspectual distinction in Pre-Proto-Mixean only included the complete/incomplete opposition. Synchronically, Olutec has three distinct aspect markers in paradigmatic opposition: incomplete, complete and irrealis.

The following examples illustrate the use of wa:nʔ as the only verb of simple clauses.

- (156) a. tawanküxi tüʔni paʔko jaykaʔk
 ta= wa:nʔ-küx-i tü:nʔ+i paʔko jaykak
 C3(ERG)=want -PL3-INCD shit a lot people
 'A lot of people wanted shit.' {olu4/161}

- b. porke ?ika:wanuxü?k ?iko:tükaw
 porke ?i= ka:=wa:n? -u =xü=k
 because A3(ERG)=NEG=love -COMI=EV=AN

 ?i= ko:- түkaw
 A3(PSR)=step-father
 'Because he didn't love his stepfather.' {aandc/8}
- c. ?iniwanküxa?neja?
 ?i= ni- wa:n?-kux-a?n+e+j =ja?
 A3(ABS)=RECP=love -PL3-INV+IRRD=3AN
 'They are going to love each other.' {rschl/471}

The examples in (157) illustrate the use of wa:n? as a complement taking verb followed by an embedded clause. Note that the order of the verbs in the complement clause (wa:n?+V) is the opposite to the order of the verbs in the construction that gave rise to the irrealis suffix (V+wa:n?). The coreferential participant ("A" of the matrix verb and "S"/"A" of the embedded verb) is expressed in both verbs.

- (157) a. pero ?ika:wanuk tantzü? ?inükxa?n
 pero ?i= ka:=wa:n?-u =k tan= tzü?
 pero A3(ERG)=NEG=want -COMI=AN A1(PSR)=mother

 ?i= nüx-a?n
 A3(ABS)=go -IRRD
 'But my mother didn't want to go.' {rp3/843}
- b. ?al xwani xyaktzi?a?n tu?k ?awkü?xunakü ti?kxu
 ?al tax= wa:n?-i tax= yak+tzi:y?-a?n
 when C1(ERG)=want -COMD C1(ERG)=grab -IRRD

 tuk ?awkü?x-?unak ø= ti?kx-u
 one branch -DIM B3(ABS)=snap -COMI
 'When I wanted to grab the little branch, it snapped.' {vg/301-3}

The future meaning of the grammaticalized verb wa:nʔ indicates that the situation expressed in the proposition will take place after the moment of speech. Bybee et al (1994:256) have claimed that languages in which a verb of desire grammaticalized as a future marker usually have a cluster of meanings that are closely related. In addition to the original desire reading, the following three other nuances are usually attested: willingness, intention and prediction. The Olutec irrealis has all of these nuances. The sense of willingness is illustrated in the examples in (158).

- (158) a. ta miwampe pos tajüytaʔkama:t
 ta min= wa:nʔ-pe
 COND A2(ERG)=want -INCI.T
- pos ta= jü+ta:kʔ-am -a:t
 then B1(ABS)=play -IRRI-PL.SAP
 'If you want, we will play.' {koya/152-3}
- b. ta taxmoypakü taʔu:kam
 ta tax= mo:yʔ-pa -k
 COND C1(LOCAL)=give -INCI.I-INV.LOCAL
- tan= ʔu:k -am
 A1(ERG)=drink-IRRI
 ['Don't you want to drink a little bit of liquor?'
 "OK", the old man said.] "If you give it to me,
 I will drink it." {compa/36-9}

The intention nuance of the suffix is obtained mainly when the agent is first person, but it is also attested when

the agent is second or third person. This second meaning covers promises, propositions, and resolutions that are intended to be carried out in the near future. The sense of intention is still clearly associated with the meaning of the lexical source, especially when the agent is first person, since the reading of clauses such as 'X wants to do Y' implies that 'X intends to do Y'. All the examples in (159) have a first-person as the participant who plans to accomplish the event.

- (159) a. juxtükmü taxmo?a?n mime:nyu
 juxtükmü tax= mo:y?a?n min= me:nyu
 after_tomorrow C1 (LOCAL)=give -IRRD A2 (PSR)=money
 'I'll give you your money the day after tomorrow.'
 {desob/77}
- b. yam taxkomam xikama kawa?k
 ya?mü tax= kom -am xikama kawak
 here C1 (ERG)=plant-IRRI jicama banana
 'I'll plant jicamas and bananas here.' {lm4/60}
- c. tamü:nikü?pa:tanüpa?
 tan= mü:- ni- kü?pa:t-an+ü+p =ja?
 A1 (ERG)=ASSOC1-RECP-marry -INV+IRRI=3AN
 'I'll marry her.' {aandc/74}
- d. tamü:nükxame:tak ya?aj ?apu witpa?
 tan= mü:- nükx-am -e:t =ak ya?aj
 A1 (ERG)=ASSOC1-go -IRRI-PL.SAP=AN this
 ?apu wit -pa+?
 grandfather walk-NF
 'I'll take my grandfather for a walk.' {burdel/11}
- e. tajaname:tak ya?aj tantükaw
 tan= jan-am -e:t =ak ya?aj tan= tükaw
 A1 (ERG)=lie-IRRI-PL.SAP=AN this A1 (PSR)=father
 'We'll lie to my grandfather.' {olu28/823}

The intention reading of the suffix -wa:n? with second and third person is illustrated in (160a-d). Note that the intention nuance is mixed with purpose and uncertainty since the speaker is not necessarily a person who can determine the precise intentions of someone else.

- (160) a. miyaktzaku para mixtzo?ka?anak je? majaw
 mi= yak -tzak-u
 B2 (ABS)=PASS-send-COMI

para mix= tzo:k?-a? -an =ak je? majaw
 in_order C2 (ERG)=pay -APPL1-IRR=AN that woman
 'You were sent (to the world) in order that you
 would pay (your debt) to that woman.' {olu6/192}

- b. jupa? mixnümayi majaw mix mo?a?n
 jupa? mix= nüm -ay -i majaw
 how_much C2 (ERG)=tell-APPL1-COMD woman

mix= mo:y?-a?n
 C2 (ERG)=give -IRR
 'How much did you tell the woman that you would
 give her.' {olu6/181}

- c. mü:t jama?k yo?jwa ?ipe:nsartunüpak tame?ja?n
 mü:t jamaj=k yo?jwa ?i= pe:nsar+tun-nü
 and that=AN man A3 (ERG)=think -already

-pe =ak ta= me:j? -a?n
 -INCI.T=AN C3 (ERG)=deceive-IRR
 'And that man was already thinking that he would
 deceive her.' {olu6/20}

- d. tapokxe jamaj tuka:wku de ja?aj tükü
 ?itüki:küxanak jo?mpa?
 ta= pokx -e jamaj tük -?aw+ku de ja?
 C3(ERG)=knock-INCD that house-entrance of DEF
- tük ?i= tük+?i:y?-küx-an =ak jo?n -pa?
 house A3(ABS)=enter -PL3-IRR=AN steal-NF
 '(The rebels) were knocking on the door of the
 house in order to enter to steal.' {viaj2/263}
- e. tyakyü?ki tüpxi para tatojxotza?nak küpi
 ta= yak -yü?k -i tüpx+i
 C3(ERG)=CAUS-be_ready-COMD rope
- para ta= toj- xotz-a?n =ak küpi
 in_order C3(ERG)=INSTR-tie -IRR=AN firewood
 'He got the rope ready in order to tie the wood
 with it.' {olu1/77}

The simple future sense, which implies prediction, is attested with all persons and with all types of verbs, including the non-agentive ones that naturally do not allow the williness or intention readings.

- (161) a. je?xü?k ?o:kwa:ka na?kxexük ?iya?xi tuxu?k kuyjemü
 nünküxpak mi?namxük tu:jü
 je? =xü=k ?o:kwa:ka na?kxej=xü=k ?i= ya:x?
 that=EV=AN cuckoo when =EV=AN A3(ABS)=shout
- i tuxuk kuy -jem nüm-küx-pa =k
 -INCD green tree-LOC say-PL3-INCI.I=AN
- ø= mi:n?-am =xü=k tu:j
 B3(ABS)=come -IRRI=EV=AN rain
 'It is said that when the squirrel cuckoo screams
 on the green tree, it is going to rain.' [Lit. The
 rain will come.] {olu7/3-5}

- b. ʔoya taʔitnone:t porke taʔu:kuʔaʔa:t tzoü
 ʔoya tan= ʔit -nü -an -e:t
 alright A1 (ABS)=exist-already-IRR-PL.SAP
- porke tan= ʔu:k -u -ʔaʔ -a:t tzoü
 because A1 (ERG)=drink-COMI-PERF-PL.SAP medicine
 'We are going to be alright very soon because we
 had taken the medicine.' {lonja/102-3}
- c. porke kaʔoya xwinyaʔne:t ma:s despweʔs
 porke ka:=ʔoya tax= wini:yʔ-aʔn -e:t
 because NEG=alright C1 (ERG)=feel -IRR-PL.SAP
- ma:s despwes
 more after
 'Because we are going to feel sick later on.'
 {lonja/92}
- d. jeʔk ʔijuyam minka:xa
 jeʔ =k ʔi= juy-am min= ka:xa
 that=AN A3 (ERG)=buy-IRRI A2 (PSR)=coffin
 'He is going to buy you your coffin (when you
 die.)' {aand/336}
- e. mimü:nükxa:nüp ja:mu
 mi= mü:- nükx-an+ü+pa ja:mu
 B2 (ABS)=ASSOC1-go -INV+IRRI wind
 'The wind is going to take you away.' {koya/108}
- f. mü: jem miʔo:kaʔn
 mü:t jeʔ+mü min= ʔo:k-aʔn
 and there A2 (ABS)=die -IRR-PL
 'And you are going to die there.' {koya/53}
- g. ʔoya ʔiʔitan jeʔ mo:kü
 ʔoya ʔi= ʔit -an jeʔ mo:k
 good A3 (ABS)=exist-IRR that corn
 'The corn is going to be good.' {rss11/25}
- h. ʔiniküʔpa:taʔne:k mü:tak ʔa:gila
 ʔi= ni- küʔ+pa:t-aʔn+e+j =k mü:t=ak ʔa:gila
 A3 (ABS)=RECP-marry -INV+IRR-PL with=AN eagle
 '(The buzzard) is going to marry the eagle.'
 {zopil/2}

In addition to the future meaning, the irrealis suffix has other nuances that are coded by epistemic and deontic mood markers cross-linguistically. It occurs in clauses to indicate that the event or state coded by the predicate is uncertain, desirable, preferred, or unreal. It usually appears after epistemic and evaluative adverbs or particles.

- (162) a. $\text{ʔe:penak ta ʔipa:tküxa:maʔ jaʔmejkoj pero}$
 ʔika:pa:tküxu jaʔ
 $\text{ʔe:p+pe+na=k ta ʔi= pa:t-küx-am =jaʔ}$
 maybe =AN COND A3(ERG)=find-PL3-IRRI=3AN
 $\text{jaʔmej =koj pero ʔi= ka:=pa:t-küx-u jaʔ}$
 that_way=just but A3(ERG)=NEG=find-PL3-COMI 3AN
 '[He tried] just in case that he might find them,
 but he didn't find them.' {rspf1/581}
- b. $\text{ʔe:pena tamotowam ta jemak ʔiʔitküxi}$
 $\text{ʔe:p+pe+na tan= motow-am}$
 maybe A1(ERG)=hear -IRRI
 $\text{ta jeʔ+mü=ak ʔi= ʔit -küx-i}$
 COND there =AN A3(ABS)=exist-PL3-INCD
 'Maybe I might hear if they are there.' {id3/777}
- c. $\text{ka:jaʔitpa ni ti sino ʔoyamej pün tik ʔiʔitaʔn}$
 $\text{ø= ka:=ja= ʔit -pa ni ti}$
 B3(ABS)=NEG=MIRAT=exist-INCI.I NEG thing
 $\text{sino ʔoyamej pün tik ʔi= ʔit -aʔn}$
 otherwise well probably CFCT A3(ABS)=exist-IRRD
 'There is nothing, otherwise it would be fine.'
 {aand/786}

When the modal adverbs or particles are not present in the clause, the desirability deontic reading can be obtained by the irrealis marker only.

- (163) jeʔ kuyü minkaʔtza:meʔej ʔika:papxaʔn
 jeʔ kuy min= kaʔtz-am -eʔ
 that tree A2(ERG)=cut -IRRI-NMZR
- ʔi= ka:=papx-aʔn
 A3(ABS)=NEG=snap-IRRD
 'Hopefully, the stick that you are going to cut
 does not break' {compa/83}

The use of the irrealis suffix coding the ability and possibility deontic readings is illustrated in the following examples. These modality senses evaluate the ability of the agent to complete the action of the main verb due to internal or external event conditions.

- (164) a. ʔikayküxanak jem tajuyküxanaʔ
 ʔi= kay-küx-an =ak jeʔ+mü
 A3(ABS)=eat-PL3-IRRD=AN there
- ta= juy-küx-an =jaʔ
 C3(ERG)=buy-PL3-IRRD=3AN
 '[They have stands there so that the people who
 come from other places] could eat there and could
 buy [food there].' {milagro/37-9}
- b. tankaʔpa:tu jumü tamaʔjaʔn
 tan= ka:=pa:t-u
 A1(ERG)=NEG=find-COMI
- jumü tan= ma:jʔ-aʔn
 where A1(ABS)=sleep-IRRD
 'I didn't find a place where I could sleep.'
 {piojo/19-20}

- c. küpi li:sto ?i?itno ka?tze?k para tyaktoykúxa?nxü
ja?
küpi li:sto ?i= ?it -nü -e ka?tz-ek
wood ready A3(ABS)=exist-already-INCD cut -PCP
- para ta= yak- toy -kúx-a?n =xü ja?
in_order C3(ERG)=CAUS-burn-PL3-IRR=EV 3AN
'The wood was ready, it was cut so he could burn
it.' {diabl/72-74}
- d. ?ijatukü jumej tyak?o:ka?n je? jaytzu?
?i= jat -u =k jumej
A3(ERG)=be_able-COMI=AN how
- ta= yak- ?o:k-a?n je? jaytzu?
C3(ERG)=CAUS-die -IRR that deer
'He knew how he could kill that deer.' {olu27/28-9}
- e. ?ijamatixü?k japoy ?itü na?wuna?k mü:t je?xük
nü:nü ?ikaykúxa:me? ?i?awo?k
?i= jamat -i =xü=k japoy ?itü
A3(ABS)=arrive-COMD=EV=AN morning TEMP
- na?aw -?unak mü:t je? =xü=k nü:n
old_man-DIM with that=EV=AN tortilla
- ?i= kay-kúx-am =je? ?i= ?awok
A3(ERG)=eat-PL3-IRRI=that A3(PSR)=offspring
'The little old man got there in the morning with
the tortillas so that his children could eat
them.' {desob/27-8}

Modality, manipulation and perception/cognition/
utterance matrix verbs require complement clauses marked by
the irrealis suffix when the event coded by the complement
has not taken place or when the matrix verb induces a
deontic mode of desire, preference or intention over its
complement. In (165), the modality verbs wa:n? 'want' and

ʔixmatz 'try', functioning as matrix verbs, are followed by complement clauses suffixed by the irrealis suffix.

- (165) a. tawampe mixmü:tükiʔaʔn taʔapu
 tan= wa:nʔ-pe
 A1(ERG)=want -INCI.T
- mix= mü:- tük+ʔi:yʔ-aʔn tan= ʔapu
 C2(ERG)=ASSOC1-enter -IRRD A1(PSR)=grandfather
 'I want you to have sexual relations with my
 grandfather.' {burdel/82}
- b. dejemü taka:jawaʔnik ʔiyoxtunaʔnü jeʔk mawro
 de+jem ta= ka:=ja= wa:nʔ-i =k
 then C3(ERG)=NEG=MIRAT=want -COMD=AN
- ʔi= yox+e-tun-aʔn jeʔ =k mawro
 A3(ABS)=work -do -IRRD that=AN Mauro
 'And after that Mauro didn't want to work
 anymore.' {olul/312}
- c. jeʔk ʔita:ta ʔiwanu seme taʔe:paʔn ʔita:tawoʔk
 jeʔ =k ʔi= ta:ta ʔi= wa:nʔ-u
 that=AN A3(PSR)=grandmother A3(ERG)=want -COMI
- seme ta= ʔe:p-aʔn ʔi= ta:ta -wok
 very C3(ERG)=see -IRRD A3(PSR)=grandson-DIM
 'Their grandmother really wanted to see her
 grandsons.' {rayo/86}
- d. jeʔ ʔu:ra xʔixmatzi xjayukwü:nana tiʔkü
 jeʔ ʔu:ra tax= ʔix+matz-i
 that hour C1(ERG)=try -COMD
- tax= ja= yuk-wü:n-an =na tik
 C1(ERG)=MIRAT=UP -pull-IRRD=still CFCT
 'That's when I tried to see if I still would be
 able to lift it up.' {lm3/352-3}

Complement clauses marked by the irrealis following the non-implicative manipulation verb nüm 'ask, tell' convey the deontic senses of desire, manipulation, and obligation.

- (166) a. mü:t je? ?u:rak ?iyaknüma?xiy ?imi?nanak tapüki
 je?k ka:ja?w mü:tak tu:ru mü:tak ?uxpi?n
 mü:t je? ?u:ra=k ?i= yak- nüm -a?x -i
 and that hour =AN A3(ABS)=PASS-tell-APPL1-COMD

 -y ?i= mi:n?-an =ak ta= pük -i
 -INVD.C A3(ABS)=come -IRRD=AN C3(ERG)=grab-INCD

 je? =k ka:jaw mü:t=ak tu:ru mü:t=ak ?uxpin
 that=AN tiger and =AN bull and =AN alligator
 'That is when he was told that he should come back
 bringing a tiger, a bull and an alligator.'
 {koya/35}
- b. mü:t tanümayuk ?ika:jami?na?nak
 mü:t tan= nüm -ay -u =k
 and A1(ERG)=tell-APPL1-COMI=AN

 ?i= ka:=ja= mi:n?-a?n =ak
 A3(ABS)=NEG=MIRAT=come -IRRD=AN
 'I told him that he shouldn't come.' {olu4/190-1}

The examples in (167) include non-factive perception and cognition matrix verbs. The irrealis marker in the complement clause indicates that the event is believed to have occurred (167a), it was expected to occur but has not occurred yet (167b), or it is anticipated that it will not occur (167c).

- (167) a. jamaʔk ʔipe:nsartunüpak ti:k ʔitunameʔ
 jamaj=k ʔi= pe:nsar-tun-nü -pe =ak
 that=AN A3(ERG)=think- do -already-INCI.T=AN
- ti: =k ʔi= tun-am -eʔ
 what=AN A3(ERG)=do -IRRI-NMZR
 'He was already thinking over what he would be
 doing.' {olul/86}
- b. tankajaʔe:puk ʔiwyajartunaʔn ʔoja:pa
 tan= ka:=ja= ʔe:p-u =k
 A1(ERG)=NEG=MIRAT=see -COMI=AN
- ʔi= wya:jar-tun-aʔn ʔoja:pa
 A3(ABS)=travel- do -IRRD Ojapa
 'I didn't see him anymore traveling to Ojapa.'
 {viaj2/235}
- c. mü:tak jamaj majawü ʔiwini:pek jama:k naʔwunaʔk
 taka:jatunaʔn niti:
 mü:t=ak jamaj majaw ʔi= wini:yʔ-pe =k
 and =AN that woman A3(ERG)=know -INCI.T=AN
- jamaj=k naʔaw -ʔunak ta= ka:=ja= tun-aʔn
 that =AN old_man-DIM C3(ERG)=NEG=MIRAT=do -IRRD
- ni- ti:
 NEG-thing
 'And that woman knew that the old man wouldn't be
 able to do anything.' {burdel/87}

Clauses that portray imaginary or hypothetical events that have not taken place also carry the irrealis suffix. Among these are the adverbial temporal, conditional, and counter-factual complex clauses.

(168)

Temporal

- a. na:xej tu?k majaw mixwa?na?n ni?ti?k ko:xo jemak
mixmü:ju:ni?koj

na?kxej tuk majaw mix= wa:n?-a?n ni?tik ko:xo
when one woman C2(ERG)=love -IRRD every day

je?+mü=ak mix= mü:- ju:n-ni:y? -i =koj
there =AN C2(ERG)=ASSOC1-sit -PERDUR-INCD=just
'When you love a woman, you are just there,
sitting together with her every day.' {rp3/747}

- b. ?al mixmü:mi?nanak je?ej ?entonses taxyake:kam
?al mix= mü:- mi:n?-an =ak je?
when C2(ERG)=ASSOC1-come -IRRD=AN that

?entonses tax= yak- ye:k-am
then C1(LOCAL)=CAUS-grow-IRRI
'As soon as you bring that, then I am going to
make you grow.' {koya/30-1}

Conditional

- c. ta mitzü?ki?a:me? mü:t mika:tzü?kiyu
ta mi= tzü?k+?i:y?-am =je?
COND B2(ABS)=be_afraid -IRRI=that

mü:t mi= ka:=tzü?k+?i:y?-u
and B2(ABS)=NEG=be_afraid -COMI
'[I asked myself] if you would be scared of it.
And you weren't.' {compa/128-30}

Counter-factual

- d. je? ti?k ta?nü?k mitanü ti ti?k minka:tunam
je? tik ta?nük min= ?it -an
that CFCT big A2(ABS)=exist-IRRD

ti tik min= ka:-tun-am
what CFCT A2(ABS)=NEG-do -IRRI
'Imagine, if you were big, what kind of things you
wouldn't do.' {koya/212}

- e. kay ?iminik ti?k ya?k tükju:ni:pa? tantya pos
 pwe:de püna tik ta?itan jem
 kay ?i= mi:n?-i =k tik ya? =k
 CFCT A3(ABS)=come -COMD=AN CFCT this=AN
- tük+ju:n-ni:y? -pa+? tan= tya pos pwe:de
 live -PERDUR-NF A1(PSR)=aunt well be_possible
- pün =na tik tan= ?it -an je?+mü
 likely=still CFCT A1(ABS)=exist-IRRD there
 'Given the case that my aunt had come to live
 there, it would be likely that I would have stayed
 there.' {mil/409-10}
- f. ?ixpa?mej ?ika:papxtuki sino wi:tumasna? ti?k tu?k
 ?iwita?n
 ?ixpa?mej ?i= ka:=papx-tuk -i
 luckily A3(ABS)=NEG=snap-DIR:across-COMD
- sino wi:tu -matz-na? tik tuk
 otherwise twisted-AUGM-ADJ CFCT one
- ?i= wit -a?n
 A3(ABS)=walk_around-IRRD
 'Luckily (the branch) didn't break, otherwise one
would walk with a twisted neck.' {vg/695-6}

The gloss 'IRR' for 'irrealis' tries to cover all these uses. The various contexts in which the irrealis shows up demonstrates that this suffix is not only an aspectual marker coding future, but also a modal marker coding several deontic and epistemic readings. This type of overlap between future tense/aspect and modality is not surprising given the origin of the morpheme.

7. From 'die' to a Desiderative

The intransitive verb ʔo:k 'die' has grammaticalized as an agent oriented modal of desire. It specifies that the agent of the verb desires or wants to perform the action conveyed by the main verb. The verb 'to die' shows the same semantic development in English, Spanish, Ewe and many other languages that have constructions such as "He is dying to see his child". The Olutec construction has the main verb suffixed by the nominalizer -i followed by ʔo:k. The nominalized main verb and the desiderative morpheme (DESID) form a morphological unit, to which affixes and clitics are attached. The presence of the nominalizer intervening between the two verb roots is an indication that, diachronically, this structure was an embedded-plus-matrix-verb complex construction and not a serial verb construction. The embedded-plus-matrix verb sequence is not attested synchronically as a productive construction, but there are several traces indicating that this was a common pattern in a previous stage of the language when the order of constituents was OV, i.e., when Olutec was a strong verb final language.

The following examples illustrate intransitive main verbs suffixed by the desiderative. The two uses of the

morpheme ʔo:k, as a lexical verb 'die' and as a desiderative, are shown in (169a). Note that the proclitics precede the main verb and the suffixes and enclitics follow the desiderative.

- (169) a. pün tej ʔo:kiʔo:kpa
 pün tej ø= ʔo:k-i -ʔo:k -pa
 who ADM B3 (ABS)=die -NMZR-DESID-INCI.I
 'Who wants to die?' [Lit. 'Who is dying to die?']
 {rspf2/129}
- b. mimaʔjiʔo:knüpampoʔ
 mi= ma:jʔ-i -ʔo:k -nü -pa =ʔampoʔ
 B2 (ABS)=sleep-NMZR-DESID-already-INCI.I=also
 'You already want to sleep too.' {aand2/125}
- c. mi:seʔ mika:miʔniʔo:kpaʔ
 mi:tz=jeʔ mi= ka:=mi:nʔ-i -ʔo:k -pa -ʔ
 you=CLEFT B2 (ABS)=NEG=come -NMZR-DESID-INCI.I-NMZR
 'You are the one who doesn't want to come.'
 {id3/548}

The number and type of arguments of the desiderative construction is determined by the main verb. If the main verb is intransitive, the clause is intransitive, as in (169a-c). If the main verb is transitive, the clause is transitive. Underived main verbs followed by the desiderative are shown in (170a-c).

- (170) a. taʔe:piʔo:kpek tanta:tawoʔk
 tan= ʔe:p-i -ʔo:k -pe =k
 A1(ERG)=see -NMZR-DESID-INCI.T=AN

 tan= ta:ta -wok
 A1(PSR)=grandson-DIM
 'I want to see my grandsons' [Lit. 'I am dying to see my grandsons.'] {rayo/33}
- b. ʔika:kayiʔo:kpe jaʔ
 ʔi= ka:=kay-i -ʔo:k -pe jaʔ
 A3(ERG)=NEG=eat-NMZR-DESID-INCI.T 3AN
 'He doesn't want to eat it.' {aand/240}
- c. takoxiʔo:küpaʔ
 ta= kox-i -ʔo:k -ü -pa =jaʔ
 B1(ABS)=hit-NMZR-DESID-INV-INCI.I=3AN
 'He wants to hit me.' {koya/20}

The following examples illustrate derived transitive main verbs followed by the desiderative; (171a) is a derived causative; (171b) is a derived associative.

- (171) a. tza:tekojeʔ yaktzüʔkiʔo:küxitpa
 tza:+tek=koj =jeʔ ø= yak- tzüʔk+ʔi:yʔ-i
 we =just=CLEFT B3(ABS)=CAUS-be_afraid -NMZR

 -ʔo:k -küx-ʔit -pa
 -DESID-PL3-PL1.PO-INCI.I
 'It is us, who they want to scare.' {vg/636}
- b. ʔika:mü:ʔitiʔo:kpe jaʔ
 ʔi= ka:=mü:- ʔit -i -ʔo:k -pe jaʔ
 A3(ERG)=NEG=ASSOC1-exist-NMZR-DESID-INCI.T 3AN
 'She doesn't want to be with him.' {lm4/639}

The main verb may be passivized, resulting in an intransitive verb, as shown in (172a-b). Semantically, this type of passive implies that there is a volitional agent who

wants or desires that the event specified by the main verb take place. Such an agent is left unspecified.

- (172) a. ka:yakʔe:piʔo:kpa jeʔkü sansunak jem
 ø= ka:=yak- ʔe:p-i -ʔo:k -pa
 B3(ABS)=NEG=PASS-see -NMZR-DESID-INCI.I

 jeʔ =k sansun=ak jeʔ+mü
 that=AN Sanson=AN there
 'They don't want Sanson to be seen.' [Lit. 'His
 being seen is not wanted (by someone).'] {lm4/502}
- b. pün tek yakayiʔo:kpa
 pün tek ø= yak- kay-i -ʔo:k -pa
 who ADM B3(ABS)=PASS-eat-NMZR-DESID-INCI.I
 'Who do they want to eat?' [Lit. 'Who's eating is
 wanted (by someone)?'] {rspf2/130}

8. Two Verbal Classifiers: wakx and kot

The verbal roots wakx 'spread' and kot 'be together' are the second elements of various V+V complex stems.¹³ They qualify the event predicated by the first verb specifying the shape and/or spatial configuration of the absolutive argument (theme.) The basic semantic opposition conveyed by these morphemes can be clearly appreciated when they modify the same verbal root. They specify whether the entity referring to the absolutive argument is temporarily arranged in a two-dimensional (wakx) or a three-dimensional (kot) manner. In that sense, they can be considered verbal

classifiers of the type discussed by Seiler (1986) for Imonda, a Waris language spoken in Papua New Guinea.

As a main verb, wakx is an intransitive inactive verb meaning 'spread out', 'be given away', 'distributed', as in (173a-b).

(173) Underived

- a. wakxpa yaʔaj tutiwoʔk
 ø= wakx -pa yaʔaj tuti-wok
 B3(ABS)=spread-INCI.I this spot-DIM
 'The spots are spreading.' {DICT}
- b. küxu ʔiwakxe müʔki, kajaʔitpa
 ø= küx -u ʔi= wakx -e müʔki
 B3(ABS)=finish-COMI A3(ABS)=distribute-INCD tamal
- ø= ka:=ja= ʔit -pa
 B3(ABS)=NEG=MIRAT=exist-INCI.I
 'The tamales have been given away. There are no more.' {DICT}

When derived by a causative prefix, it means 'distribute', 'give as a present', 'give away', 'hand out', as in (174a-c).

(174) Causative

- a. para wep tana:xmü mü:t kapeʔnü:p tyakwakxe jeʔ
 tzümi
 para wew+pi tan= na:x-mü mü:t kapeʔnü:-pi
 for there A1(PSR)=land-LOC and Acayucan-LOC
- ta= yak-wakx -e jeʔ tzüm+i
 C3(ERG)=CAUS-distribute-INCD that load
 'They distribute the goods in my home town and in Acayucan.' {viajer01/34}

- b. tyakwakkek tamaktzü?k je? chi:nu
 ta= yak- wakx-e =k tan= maktzük
 C3(ERG)=CAUS-give-INCD=AN A1(PSR)=young_sister
 je? chi:nu
 that honey
 'My little sister used to give away the honey for
 free.' {abeja/104}

- c. ?iyakwakxpe noki
 ?i= yak- wakx-pe noki
 A3(ERG)=CAUS-give-INCI.T paper
 'He is handing out the papers.' {DICT}

In core serial verb constructions, wakx signals that the absolutive argument of the complex predication is temporarily scattered or spread out on a surface or in an open space. The gloss VCLF2D 'verbal classifier for two dimensional objects' appears under the morpheme in these contexts.

- (175) a. je? jokoju?kan poywakxnüp ?ijoko
 je? joko- ju?k+an
 that smoke-cigar
 ø= po:y? -wakx -nü -pa
 B3(ABS)=escape-VCLF2D-already-INCI.I
 'That smoke from the cigar is already spreading
 out.' {C8/7/114}
- b. ni?ja?mej je? kuytümü ?ixitwakxi
 ni?ja?mej je? kuytüm ?i= xit -wakx -i
 all that avocado A3(ABS)=scatter-VCLF2D-COMD
 'All the avocados got scattered.' {rspfl/175}

- c. tanmü:na:xütük ?iniwi:wakxküxiya?
 tan= mü:+na:x -tük
 A1 (PSR)=countryman-PL
 ?i= ni- wiw -wakx -kük-i -y =ja?
 A3 (ERG)=RECP-scatter-VCLF2D-PL3-COMD-INVD.C=3AN
 'My fellow countrymen dispersed.' {C8/78/16}
- d. ?iwo:kwakxpe kafe?t
 ?i= wo:k -wakx -pe kafet
 A3 (ERG)=scratch-VCLF2D-INCI.T coffee
 'He is spilling coffee beans.' {DICT}
- e. ye?kwakxpa jüntza:jü
 ø= ye?k -wakx -pa jün- tza:
 B3 (ABS)=lightning-VCLF2D-INCI.I fire-stone
 'Flashes of lightning are coming out from the
 ember.' {C20/93/24}
- f. nu:kxwakxa je? me:nyu porke tanka:je?te?k
nu:kx-wakx -a je? me:nyu porke
 lend -VCLF2D-IMPR that money because
 tan= ka:=je? -tek
 A1 (PSR)=NEG=that-PL.SAP
 'Give away that money because it doesn't belong to
 us.' {DICT}

The same suffix indicates that the referent of the
 absolutive argument is an entity which is temporaly extended
 in a one dimensional axis (e.g., an arm), or a in a two
 dimensional axis (e.g., a flower, a leaf, a piece of paper
 or cloth, etc.)

- (176) a. ?ixajwakxe je?k senyo:ra
 ?i= xaj -wakx -e je? =k senyo:ra
 A3 (ABS)=open_the_arms-VCLF2D-INCD that=AN lady
 'That lady is stretching out (her arms.)'
 {rschl/251}

- b. püjwakxwa? püji
 ø= püj -wakx -w -a? püji
 B3(ABS)=burst-VCLF2D-COMI-PERF flower
 'The flower has already opened.' {DICT}
- c. nuku?k nuku?k taxwüjwakxno
 nukuk nukuk tax= wüj-wakx -nü -i
 tender tender C1(ERG)=tie-VCLF2D-already-COMD
 '(The tamales) are really soft by the time I untie
 them.' {C10/1/836}

Wakx is suffixed to verbs of cutting and breaking to signal that the affected entity ends up scattered in two or more pieces.

- (177) a. je?mü:tak mü:t kuyü tatojpakxwakxe
 je?+mü:t =ak mü:t kuy
 due_to_that=AN with stick
 ta= toj- pakx -wakx -e
 C3(ERG)=INSTR-make_holes-VCLF2D-INCD
 'Because (the fruit had thornes) he split it open
 with a stick.' {rspf1/503}
- b. je? ?u:rak tatzukwakxi
 je? ?u:ra=k ta= tzuk-wakx -i
 that hour =AN C3(ERG)=cut -VCLF2D-COMD
 'That's when he cut it.' {C1/33/194}
- c. pero taswakxu je? lime:ta
 pero ø= tatz-wakx -u je? lime:ta
 but B3(ABS)=fall-VCLF2D-COMI that bottle
 'But the bottle broke into pieces.' {id2/84}

In contrast, when the absolutive argument of the verb is arranged in a three dimensional configuration or shape, the verb root is suffixed by kot, glossed as VCLF3D 'verbal classifier for three dimensional objects'.

- (178) a. jamaʔk ʔiküʔü moʔtzitzkotu
 jamaj=k ʔi= küʔ ø= moʔtz+itz-kot -u
 that=AN A3(PSR)=hand B3(ABS)=clench -VCLF3D-COMI
 'That hand of him got clenched.' {olul/203}
- b. ʔijamatixük jem tapiwkote tüʔni
 ʔi= jamat -i =xü=k jeʔ+mü
 A3(ABS)=arrive-COMD=EV=AN there
- ta= piw -kot -e tü:nʔ+i
 C3(ERG)=gather-VCLF3D-INCD shit
 'He arrived there and piled up shit.' {olu4/179}
- c. ʔimeʔpxkotpe jaʔ
 ʔi= meʔpx -kot -pe jaʔ
 A3(ERG)=hold_in_hands-VCLF3D-INCI.T 3AN
 'He is hugging (the dog.)' {idl/138}
- d. ʔixiʔk tawo:kote tuku
 ʔix+ʔi:yʔ-i =k ta= wo:k -kot -e
 begin -COMD=AN C3(ERG)=scratch-VCLF3D-INCD
- tuku
 cloth
 'He began to grab and pile up the clothes.'
 {ropa/124}

The following are some of the verbs that can be
 suffixed with either wakx or kot:

- | | | |
|-------|---|---|
| (179) | <u>wakx</u> '2 Dimensions' | <u>kot</u> '3 Dimensions' |
| a. | <u>yeʔp-wakx</u>
hang-VCLF2D
'hang an extended
piece of cloth' | <u>yeʔp-kot</u>
hang-VCLF3D
'hang a rope, or a non-
extended piece of cloth' |
| b. | <u>piw-wakx</u>
gather-VCLF2D
'spread out, disperse' | <u>piw-kot</u>
gather-VCLF3D
'pile up, get together' |
| c. | <u>wüj-wakx</u>
tie-VCLF2D
'untie, unwrap' | <u>wüj-kot</u>
tie-VCLF3D
'tie, wrap' |

d.	<u>pit-wakx</u>	<u>pit-kot</u>
	wrap-VCLF2D	wrap-VCLF3D
	'unwrap'	'wrap'

In sum, the Olutec verbal classifier system is quite incipient when compared to other classifier systems of the same type. The basic semantic opposition is based on transitory arrangement or shape of a limited set of nouns. Only a limited set of verbs can take the classifier, and there is no syntactic context that requires the presence of the classificatory suffix.

9. Two Plural Markers on the Verb

The intransitive verbs küx 'finish, end' and ?it 'exist' grammaticalized as plural markers, cross-referencing core arguments of the verb. The verb küx became a third person plural marker for agent, theme and dative/benefactive. The verb ?it became a first person plural marker for the primary object of the clause in contexts in which either a second or a third person acts as an agent.

9.1 Third-Person Plural

As a main verb, küx means 'finish, end, consume, use up, exhaust, vanish.'

- (180) a. yoxe ka:küxpa
 yox+e ø= ka:=küx -pa
 work B3(ABS)=NEG=finish-INCI.I
 'The work never ends.' {olu28/179}
- b. jemxük ?iküxi jaytzu?
 je?+mü=xü=k ?i= küx -i jaytzu?
 there =EV=AN A3(ABS)=finish-COMD deer
 'It is said that there is no more deer there.'
 {olu26/144}
- c. mü:t tzu?chi küxnüwa?xükoj
 mü:t tzu?chi
 and meat
 ø= küx -nü -w -a? =xü=koj
 B3(ABS)=finish-already-COMI-PERF=EV=just
 'And the meat has been already consumed.'
 {olu5/99}
- d. dejem ?uxüpü küxwa?koj jayka?k ?ikayküxi
 de+jem ?uxüw -pi ø= küx -w -a? =koj
 then afternoon-LOC B3(ABS)=finish-COMI-PERF=just
 jaykak ?i= kay-küx-i
 people A3(ABS)=eat-PL3-INCD
 'And then, in the afternoon, when the people had
 just finished eating [...]' {lm2/143}

The causative prefix yak- plus küx results in the transitive verb 'finish (off), complete'.

- (181) mi:s tej peke? minyaküxpe tantu:ru mixyak?o:ke
 mi:tz tej pek =je? min= yak- küx -pe
 you ADM trully=CLEFT A2(ERG)=CAUS-finish-INCI.T
 tan= tu:ru mix= yak- ?o:k-e
 A1(PSR)=bull C2(ERG)=CAUS-die -INCD
 'You are the one who is finishing off my bulls,
 you are killing them.' {C8/2/77}

In core serial verb constructions, küx following a main verb indicates that one of the core arguments of the clause is third-person plural. The example in (182) shows the two uses of küx within the same verbal complex. The first token represents the main verb, whereas the second token represents the grammaticalized plural suffix.

- (182) ?iküxküxixük kaypa?
 ?i= küx -küx-i =xü=k kay-pa+?
 A3(ABS)=finish-PL3-COMD=EV=AN eat-NF
 'It is said that they finished eating.' {olu2/118}

The third-person plural argument may be the "S" of an intransitive verb. The third-person plural "S" is a theme in (183a-b) and an agent in (183c-d).

- (183) a. tuwükak ?i?itküxi jamaj jayka?k
 tuwük=ak ?i= ?it -küx-i jamaj jaykak
 three=AN A3(ABS)=exist-PL3-INCD that people
 'There were three people.' {cafe/19}
- b. nija?mej ?i?o:küxi
 nija?mej ?i= ?o:k-küx-i
 everyone A3(ABS)=die -PL3-COMD
 'Everyone died.' {mil/260}

- c. jemak ?ikapxküxi
 je?+mü=ak ?i= kapx-küx-i
 there =AN A3(ABS)=talk-PL3-INCD
 'They used to talk there.' {id3/453}
- d. ?ikayküxi japoy ?itü
 ?i= kay-küx-i japoy ?itü
 A3(ABS)=eat-PL3-INCD morning TEMP
 'They eat in the morning.' {aand/87}

The third-person plural may cross-reference either the agent or the theme of a transitive verb. The third-person plural is an agent in (184a-b) and a theme in (184c-d).

- (184) a. xa:patu mayexü?k tatunküxi ?amü
 xa:patu maye=xü=k ta= tun-küx-i ?am
 Saturday TEMP=EV=AN C3(ERG)=do -PL3-INCD huapango
 'Every Saturday they danced huapango (type of dance.)' {diabl/5}
- b. ni?ti?k ta?a:wixküxnok
 ni?tik ta= ?a:wix-küx-nü -i =k
 all C3(ERG)=wait -PL3-already-INCD=AN
 'All of them were already waiting for him.'
 {diabl/80}
- c. yankoj je:p taxyaktijküxi kawa:yutük
 ya?+mü=koj je?+pi tax= yak- tij -küx-i
 here =just there C1(ERG)=CAUS-stay-PL3-INCD

 kawa:yu-tük
 horse -PL
 'Just here, over there, I am leaving the horses.'
 {ropa/96}
- d. para minkepküxamak je?tük
 para min= kep -küx-am =ak je? -tük
 for A2(ERG)=look_for-PL3-IRRI=AN that-PL
 'So you look for them.' {aand/715}

The third-person plural suffix may cross-reference the location, experiencer, benefactive of non-agentive bivalent verbs, as in (185a-b); and the addressee, recipient, benefactive, location of ditransitive verbs, as in (185c-d).

- (185) a. $\text{ʔitkũxũpak ʔite:ku}$
 $\emptyset = \text{ʔit -kũx-ũ -pa} = k \text{ ʔi= te:ku}$
 B3(ABS)=exit-PL3-INV-INCI.I=AN A3(PSR)=owner
 '(The bees) have their owner.' 'miel/60'
- b. jayũʔkũxũpaʔ
 $\emptyset = \text{jayyũʔk -kũx-ũ -pa} = \text{jaʔ}$
 B3(ABS)=be_happy-PL3-INV-INCI.I=3AN
 'They were happy.' {viaj2/166}
- c. $\text{tanũnkũxeʔxũk ʔimũʔkutũk}$
 $\text{ta= nũm -kũx-aʔ -i} = \text{xũ=k}$
 C3(ERG)=tell-PL3-APPL1-COMD=EV=AN

 ʔi= mũʔku -tũk
 A3(PSR)=brothers-PL
 'He told that to his older brothers.' {desob/11}
- d. $\text{ʔika:moykũxuk ni tuʔk ko:wre}$
 $\text{ʔi= ka:=mo:yʔ -kũx-u} = k \text{ ni tuk ko:wre}$
 A3(ERG)=NEG=give -PL3-COMI=AN NEG one coin
 'He didn't give them not even a coin.' {rp3/409}

Third-person plural marking is not obligatory. When a core argument is third-person plural, the presence of the suffix -kũx is optional. The following examples include one or more than one core argument with third-person plural referent. Note that none of the verb stems are suffixed by -kũx.

- (186) a. ma:jü:kxpak mixtuna?wtük
 ø= ma:jʔ-jü:kx-pa =k mixtun-na?w-tük
 B3 (ABS)=sleep-snore-INCI.I=AN cat -AUGM-PL
 'The big cats are snoring.' {aand/180}
- b. mi?e:panüpak minta:tatük
 mi= ?e:p-an+ü+pa =k min= ta:ta -tük
 B2 (ABS)=see -INV+IRRI=AN A2 (PSR)=grandson-PL
 'Your grandsons are going to take care of you.'
 {aand/330}
- c. je?xük ?imü:kapxam mü:na:xütük
 je? =xü=k ?i= mü:- kapx-am mü:+na:x -tük
 that=EV=AN A3 (ERG)=ASSOC1-talk-IRRI countryman-PL
 'He is going to talk with the countrymen.'
 {lm2/32}
- d. ?ita:tatü?k pa?ko ?itünüw
 ?i= ta:ta -tük pa?ko
 A3 (PSR)=grandson-PL a_lot
 ø= ?it -ü -nü -w
 B3 (ABS)=exist-INV-already-COMI
 'They had many grandsons.' {aand/36}
- e. tamoypek ?ixüknü?una?k
 tan= mo:yʔ-pe =k ?i= xük -nü: -?unak
 A1 (ERG)=give -INCI.T=AN A3 (PSR)=beans-water-DIM
 'I give them (the cats) bean soup.' {aand/69}
- f. taxka:mo?a:maka?k ja:ya?aj weka
 tax= ka:=mo:yʔ-am =ak =ak
 C1 (LOCAL)=NEG=give -IRRI=INV.LOCAL=AN
 ja: -ya?aj weka
 other-this frog
 'You are going to give me the other frogs.'
 {rschl/705}

The grammaticalization of the verb meaning 'finish' into a third-person plural marker is common in several of the languages of both branches of the Mixe-Zoquean family. This type of development seems to be an areal feature, since

it is also attested in the neighboring Tzeltalan (Mayan) languages spoken in Chiapas (Kaufman 1996). It is likely that Mayan languages borrowed this feature from Mixe-Zoquean languages since in Mayan, only the theme argument of intransitive verbs may be cross-referenced by the plural marker that developed from the verb 'finish'. This type of constraint found in Mayan may be the clue that allows us to reconstruct the environment that gave rise to the semantic reanalysis of the verb kùx 'finish' into a plural marker. The scenario that I hypothesize includes several steps. First, the reanalysis occurred with non-agentive intransitive verbs conveying affectedness, e.g., verbs such as 'die', 'fall', 'break', 'be cooked', etc. Serial verb sequences such as 'die-finish' or 'break-finish' imply that the entity involved in these type of events is completely affected. From this semantic nuance it is possible to obtain the plural reading referring to the theme argument of intransitive and transitive verbs whose meaning includes affectedness. Serial verb sequences such as 'X ate-finish Y' implies that X consumed Y until Y vanished. That is, X consumed all the entities that were to be eaten. From this semantic reading, which originally applied only to the affected theme, the serialized verb kùx later on was extended to serve as a third person plural marker for all

the thematic roles functioning as core arguments of the clause. This scenario is only hypothetical and has to be corroborated with more detailed analyses of other Mixe-Zoquean and Mayan languages of the Tzeltalan branch.

9.2 First-Person Plural

The first-person plural marker on the verb developed from the verb ?it 'exist'. This suffix occurs in contexts in which the primary object of the clause (i.e., theme of transitive verbs and recipient/benefactive of ditransitive verbs) is first-person plural, and the "A" argument is either second or third person. Inverse languages normally convey this type of configuration, in which the "O" outranks the "A" in person, using an inverse or a local pattern. In Olutec, both the expected inverse construction and the non-expected -?it construction are available for expressing the configurations 3:1PL and 2:1PL.

The following examples show transitive verb stems suffixed by -?it, glossed as 'PL1.PO' for 'first-person plural for primary objects'. In (187a-b), a second person agent acts on a first person plural. In (188a-b), a third person agent acts on a first person plural.

- (187) Configuration 2:1PL
 a. ka:miko:monitü
 ka:=mi= ko:+mon-?it -ü
 NEG=B2 (ABS)=bother -PL1.PO-IMPR
 'Don't bother us!' {rschl/627}
- b. ka:miyaktzü?kiyitü
 ka:=mi= yak- tzü?k+?i:y?-?it -ü
 NEG=B2 (ABS)=CAUS-be afraid -PL1.PO-IMPR
 'Don't frighten us!' {rspf2/806}
- (188) Configuration 3:1PL
 a. dejem ?itzo:kitne ja?
 de+jem ?i= tzo:k?-?it -nü -i ja?
 after A3 (ABS)=pay -PL1.PO-already-COMD 3AN
 'After that, he paid us.' {olu28/548}
- b. ka:yakma?jitpa jem
 ø= ka:=yak- ma:j?-?it -pa je?+mü
 B3 (ABS)=NEG=CAUS-sleep-PL1.PO-INCI.I there
 '(The mosquitoes) don't let us sleep over there.'
 {piojo/143}

The verb stems with the shape V-?it are formally intransitive. Two pieces of evidence support this claim. First, the verb only takes the absolutive proclitic cross-referencing the "A" argument. The first-person plural "O" is only indicated by the suffix -?it, which is not part of the paradigm of person proclitics. Second, the construction takes the incompletive aspectual suffix -pa, as in (188b), which only intransitive verbs of independent clauses can take. Thus, this construction formally resembles an antipassive since the semantic "A" is marked by the

absolute, the verb is intransitive and the semantic "0" is not signaled by a person marked on the verb.

The -ʔit construction that marks the 3:1PL and 2:1PL is unfamiliar in other Mixe-Zoquean languages. The semantic and formal factors that motivated the reanalysis of the verb -ʔit into a first-person plural marker are unknown. It is likely that this problem will be solved once more comprehensive data from other Mixean languages is available.

10. Conclusion

This chapter was an account of serial verb constructions in Olutec. Several morphological characteristics of crosslinguistic validity were used to justify that the Olutec V-V sequences belong to a special type of serial verb construction known as nuclear serialization. The verbs within this type of serialization do not show any sign of embedding and they share the operators marking aspect, modality and polarity, and at least one core argument.

Serial verb constructions of this type have not been discussed in detail for any Mesoamerican language. The main

purpose of this chapter was to demonstrate that the polysynthetic nature of the Olutec complex verb is due in part to the process of grammaticalization of various verbs that once were serialized verbs. That is, nuclear serialization was the source from which various verbal affixes have evolved. Among these are: valence operators; aspect, modality and aktionsarten markers; associated motion and directional markers; verbal classifiers; and plural markers for third and first person. We have seen that some of these verbs, such as ʔo:k 'die' and the paradigm of motion verbs, have followed more than one path of grammaticalization resulting in two different verbal affixes. Most of the grammaticalized verbs can still be traced back to their original sources. The verbal origin of other affixes whose sources are not synchronic verbal roots in the language can be determined through comparative analysis and distributional facts.

Notes

¹ This sequence could be interpreted as: 'eat and then sleep' or as 'eat before sleeping.'

² Note that causative verb constructions do not follow the expected order of morphemes which is attested in a typically OV language, i.e., the verb of effect followed by the verb of causation. There are several pieces of evidence that Olutec and the rest of Mixe-Zoquean languages were OV at the time the morphological causative verb construction arose. Thus, the fact that the order of morphemes is verb-of-causation followed by the verb-of-effect is an indication that the morphological causative construction did not develop from a complex complement clause but from a serial verb construction. I will discuss later the grammaticalization process of aspectual and modal suffixes from complement constructions which follow the expected order of morphemes found in a prototypical OV language.

³ Clauses including agentive verbs with either an unspecified theme or an incorporated theme are two typical morphosyntactic contexts marked as antipassive constructions in ergative languages (Cooreman 1994). In Middle-America, various Mayan languages show antipassive markers under these two circumstances (Cf. Zavala 1992 for Akatek; Craig 1979 for Jakaltek; and Smith-Stark 1978 for Pokomam; and Dayley 1981 for other Mayan languages.) The morpheme -ʔoy has been reconstructed as an antipassive suffix within the Zoquean branch of the Mixe-Zoquean family (Kaufman 1963). This marker is suffixed to transitive verb roots when the theme is unspecified. Olutec does not have an overt antipassive marker.

⁴ Haspelmath (1990:46-49) reports various other languages where the causative morpheme is also used as a passive marker. He claims that a causative marker can become a passive marker, but there is no known example in the literature of a passive becoming a causative.

Haspelmath follows Keenan (1985) in trying to explain the reanalysis from a causative construction to a passive construction via a reflexive-causative. The following are

examples that illustrate the proposed reanalysis according to Haspelmath (1990:46).

- (a) I have the barber shave me (causative)
- (b) I have myself shaved by the barber (reflexive-causative)
- (c) I am shaved by the barber (passive)

There is no evidence that such steps occurred in Olutec or other Mixean languages where the the two uses of yak are present.

⁵ Sayultec is the other Mixe-Zoquean language where the suffix -tak appears (Clark, 1983:11). Clark glosses -tak as 'relator' because it links two different predicates in the formation of a complex verb. This author analyzes all motion verbs in second position as 'directionals' without recognizing that there are two separate paths of grammaticalization: one results in canonical "directionals", and the other results in "associated motion" morphemes. At present, I cannot provide the etymology of the linker -tak. Morphemes functioning as linkers are also found in the Australian languages Kaytetye and Adnyamathanha (Wilkins, 1991:239). The linkers (also known as 'ligatives') in these languages have been reconstructed as old non-finite markers which indicate that the main verb is subordinated to the motion verb. This analysis assumes that the structure V+LNKR+V was originally a complex construction of the type 'V-ing moves', where 'V' stands for the main verb and 'moves' refers to the motion verb. Within Mixe-Zoquean languages, such a complex construction with two independent verbs, where the first one is suffixed with -tak, has only been found in Olutec.

⁶ The paradigm of directional prefixes of Coatlán Mixe includes: nü- 'downwards', yujk- 'upwards', müj- 'hither', ʔix- 'outwards' and ko:- (in combination with the suffix -nax). 'motion downwards' (Hoogshagen and Halloran 1993). The directional prefixes of San Miguel Zoque are: ʔok- 'down', ho- 'into, inside', kü- 'away', and yuk- 'up' (Johnson 1999:145).

⁷ Craig (1993) has studied the frequency of directionals in Jakaltek (Mayan) narratives. Her study revealed that 35%

of the predicates within a corpus of 460 clauses bore directionals. A similar study has been done within a larger corpus of narratives and conversations in Olutec. Out of 20,152 clauses, only 204 predicates bore directionals (1% of the total.) The contrast in frequencies between the two languages clearly shows that the use of directionals in Jakaltek is much more pervasive than in Olutec.

⁸ The telic vs. atelic inherent aspect distinction is discussed in Comrie (1976:44-48), and Van Valin, R. and R. La Polla (1997:91-102), among others.

⁹ Some Zoquean languages and Sayultec have a verb root with the same shape that means 'cook over, steam, broil, burn' (Wichmann 1995:437).

¹⁰ Wichmann (1995:103-105), using comparative data, also suggested that the future in Mixean developed from an older verb with the form wan? 'want'. Kaufman 1996 has reconstructed this form as wa:n? 'want'.

¹¹ The complementation pattern: embedded verb+matrix verb (or complement taking verb) is in accordance with other verb final features of Olutec. This complementation pattern is no longer found in the language.

¹² The irrealis suffix for dependent retains the consonant /w/ in the Mixean language Sayultec (Wichmann 1994:104).

¹³ The morpheme kot, which is no longer a verbal root in Olutec, has been reconstructed as the PMZ verb 'insert' (Wichmann 1995:358).

CHAPTER V

CONFLATION OF ARGUMENTS: NOUN INCORPORATION AND NOUN
DENOMINALIZATION0. Introduction

Incorporation is one of the criteria which has been used in the literature to identify polysynthetic languages (Sapir 1911, Fortescue 1984, 1994, Baker 1996). Incorporation is the compounding of a verb root with another root. Oluvec is a language in which verb stems can be simple or complex. Simple stems are formed with one verb root. Complex stems are formed by more than one verb root (1) or by one or more verb roots plus an incorporated non-verbal element.

- (1) a. ?u:ra tankayma?janü
 ?u:ra tan= kay-ma:j?-an
 hour A1(ABS)=eat-sleep-IRR
 'At the time when I am going to have dinner.'
 {aand/67}
- b. ma:jü:kxküpaxpa ja?
 ø= ma:j?-jü:kx-küpax-pa ja?
 B3(ABS)=sleep-snore-PL3-INCI.I 3AN
 'They are snoring.' {aand/174}

- c. ʔitompewitpek ʔiʔunak karre:tiyajotpi
 ʔi= ton -pet -wit -pe =k
 A3(ERG)=push-ascend-stroll-INCI.T=AN
- ʔi= ʔunak karre:tiya -jot -pi
 A3(PSR)=offspring wheelbarrow-inside-LOC
 'She is pushing her son who is inside of the
 wheelbarrow.' {rschl/260}

Among the non-verbal morphemes which can be incorporated
 are: adverbs (2), adverbs, nouns, or adjectives with
 secondary predicate interpretation (3),¹ and nouns (4).

- (2) a. tana:wnaxeʔo:kaʔn mü:t yaj tzu:maʔjitüjüʔk
 ta= na:wnaxe-ʔo:k-aʔn mü:t yaʔaj
 B1(ABS)=suddenly-die -IRRD with this
- tzu:- ma:jʔ-i- tüj -ük
 night-sleep-NMZR-dislocate-PCP
 'I hope I am not going to die all of a sudden
 because of the rheumatism.' {aandc/485}'
- b. pero taweʔxmoyüw pekaʔ
 pero ta= weʔx- mo:yʔ-ü -w pek =jaʔ
 but B1(ABS)=luckily-give -INV-COMI truly=3AN
 'But luckily he gave it to me.' {aand2/43}
- c. jeʔ pek ʔituʔmimoyu:keʔ ʔo:ku jaʔ
 jeʔ pek ʔi= tuʔmi- mo:yʔ-u =k =eʔ
 that truly A3(ERG)=one_time-give -COMI=AN=NMZR
- ø= ʔo:k-u jaʔ
 B3(ABS)=die -COM 3AN
 'That is the one who hit him hard. He died.' (Lit.
 'That is the one who gave him once. He died.')
- {id3/217}
- d. ʔisemenükxne jaʔ
 ʔi= seme-nükx-nü -i jaʔ
 A3(ABS)=very-go -already-COMD 3AN
 'He already left for good.' {rayo/8}

- (3) a. tatü?tükapxpa
 ta= tü?tü- kapx -pa
 B1 (ABS)=stuttering-speak-INCI.I
 'I am stuttering.' {DICT}
- b. jemxü?k ?ijanechipti?
 je?+mü=xü=k ?i= jane-chip -ti:y?-i
 there =EV=AN A3 (ABS)=lie -scratch-ITER -INCD
 'He was pretending to scratch.' {koya/41}
- c. mü:t je?xü tek tzo?kakayüw tukak yikitukuna?a?w
 mü:t je? =xü tek ø= tzo?ka- kay-ü -w
 and that=EV trully B3 (ABS)-sorcerer-eat-INV-COMI

 yikituku -na?w
 ugly person-AUGM
 'It is said that that ugly guy put a spell on
 him.' (Lit. 'The ugly guy sorcerer-ate him.')
 {C19/74}
- d. mitu:ntu?ixüpa?
 mi= tu:ntu-?ix-ü -pa =ja?
 B2 (ABS)=stupid-see-INV-INCI.I=3AN
 'He saw me as stupid.' {lm4/26}
- e. je?k ja:tukaj ?itu?kutiktu:tpek na:xü
 je? =k ja:tukaj ?i= tu?kutik-tu:t?-pe =k
 that=AN another A3 (ERG)=together-put -INCI.T=AN

 na:x
 dirt
 'The other one is packing the dirt together.'
 {C21/4/61}
- (4) a. tanü:tümpa
 ta= nü:- tü:n? -pa
 B1 (ABS)=water-defecate-INCI.I
 'I have diarrhea.' {id3/445}
- b. nü?pinpü:tpak seme ?i?awü
 ø= nü?pi,ü-pü:t -pa =k seme ?i= ?aw
 B3 (ABS)=blood -bleed-INCI.I=AN very A3 (PSR)=mouth
 'His mouth is bleeding a lot.' {rsch2/370}
- c. taku?kuwü:nüp tankü?jem
 ta= ku?ku-wü:n-ü -pa tan= kü? -jem
 B1 (ABS)=cramp-pull-INV-INC.I A1 (PSR)=hand-LOC
 'I am getting cramps in my hand.' (Lit. The cramps
 are pulling me from my hand) {C11a/84/942}

- d. niʔixtükʔe:püpak
 ø= ni- ʔixtük-ʔe:p-ü -pa =k
 B3(ABS)=RFLX-mirror-see -INV-INC.I=AN
 'He is looking at himself with the mirror.' {DICT}
- e. ʔitükju:niʔi
 ʔi= tük- ju:n+ni:yʔ-i
 A3(ABS)=house-sit -INCD
 'He lives there.' {aand/43}

In this chapter I will concentrate on the complex forms illustrated in (4). These stems, formed by a noun followed by one or more verbal roots, are known in the literature as Noun Incorporation (NI) (Sapir 1911, Mithun 1984, 1986a, 1986b, 1994, Baker 1988a, 1988b, 1996, Rosen 1989, Allen, Gardiner and Frantz 1984, Evans 1997, De Reuse 1994a, 1994b, Gerdts 1998). The complex verb stem acts as a single unit in terms of marking person, aspect, mode, negation, voice, inversion; and it is the host for various clitics.

Some of the NI constructions in Olutec can be paraphrased by analytic counterparts in which the noun stem occurs as an independent word external to the verb complex. As an example consider the two sentences in (5), both coming from the same text. In (5), the noun stem ma:nku 'mango' is bound to the verbal stem tuk 'to cut' to form a complex N+V stem. The noun and verb roots in the analytic counterpart appear as two separate words, as in (5b).

- (5) a. porke na?kxikojü ta?utüw tama:nkutuki
 porke na?kxi=koj ta= ?ut -ü -w
 because when =just B1(ABS)=like-INV-COMI
- tan= ma:nku-tuk-i
 A1(ABS)=mango -cut-INCD
 'Because in the old days I liked to cut mangoes
 (mango-cut)' {viaj2/29}
- b. takepe jama:k jayka?k ?itukpe? ma:nku
 ta= kep -e jamaj=k jaykak
 C3(ERG)=look_for-INCD that =AN people
- ?i= tuk-pe -? ma:nku
 A3(ERG)=cut-INCI.T-NMZR mango
 'They are looking for people who cut the mangoes'
 {viaj2/53}

Olutec exhibits a particularly interesting case of NI for several reasons. First, NI is a very productive process in the language. Second, Olutec exhibits all four types of NI discussed by Mithun (1984): I lexical compounding (new lexical items are created); II manipulation of case (NI changes the argument structure of the verb); III manipulation of discourse structure (the incorporated nouns are treated as backgrounded information); IV classificatory noun incorporation (the incorporated element classifies an external noun). Each type can be recognized not only functionally, but also formally, since each type triggers different morphosyntactic restrictions within the constituents of the clause. Third, NI occurs with monovalent, bivalent and trivalent verb stems. Fourth, the thematic relations which are available for incorporation are

theme (4a-b), transitive agents (4c), instruments (4d), goals and locations (4e). The incorporation of agents, goals and locations in Olutec contradicts the predictions of various typological and theoretically-oriented works on NI (Mithun 1984, Baker 1988a, 1996), which have assumed that incorporation of agents, and goals is implausible (but see other cases in Sasse 1984, Allen, Gardiner and Frantz 1984, Axelrod 1990, Polinsky 1990, Spencer 1995, Evans 1996, Cook and Wilhelm 1998 *inter alia*). Fifth, NI can be distinguished from several denominal verb formations. Denominal verb formations, similar to those found in Olutec, occur in Eskimo-Aleut languages and other Amerindian languages. Whereas some analysts (cf. Sadock 1980, 1986 for Greenlandic and Allen 1996 for Inuktitut) have treated denominal formation as NI constructions, others (cf. Kroeber (1909), Sapir (1911), and Mithun (1986b)) have refuted this analysis. The Olutec data clearly show that denominal formations are not cases of NI. And finally, NI constructions clearly show that the alternation between direct vs. inverse is sensitive to the semantic valence of the predicate and not to the syntactic status of the arguments.

In this chapter I will first present morphological and phonological features that differentiate NI constructions

from analytic counterparts. Second, using the typology proposed by Mithun (1984), I will discuss each of the four types of NI that the language exhibits. For each particular type of NI, I will show the different classes of verbs, nouns and thematic relations that are involved. Third, I will contrast NI constructions with denominalization constructions. In the conclusion, I will summarize the findings both in terms of the peculiarities which challenge previous assumptions and in terms of what NI tells us about the status of the participants which are taken as arguments for the purpose of coding a clause as direct or inverse.

1. Formal Features of the Incorporated Noun

In this section I will present some of the formal features that distinguish incorporated from analytic constructions and incorporated nouns from unincorporated nouns. I will show that the noun stem together with a verb stem form a semantic and morphosyntactic unit.

1.1 The Slot of the Incorporated Noun

The fact that the nouns in examples (4) and (5a) occupy a fixed position (between the pronominal clitics and the

verb stem) is clear evidence that these nouns form a single word with the verb stem. In contrast, free-standing nouns would follow or precede the verb complex. Incorporated nouns are always immediately followed by the verb stem. The verb stem can be simplex as in (4) and (5a); or complex as in (6), where the verb roots ʔe:p 'see' and pük 'grab' form the complex verb stem ʔe:p-pük 'to look at'.

- (6) ni xuʔni ni po:jü niwintoʔe:püküp
 ni xuʔni ni po:
 NEG dog NEG opossum
- ∅= ni- wintoj-ʔe:p-pük -ü -pa
 B3(ABS)=RFLX-face -see -grab-INV-INCI.I
 'Neither the dog nor the opossum are looking at
 each other's faces' {rs6/42}

The incorporated noun is always preceded by a person proclitic. There are other proclitics and prefixes which can appear between the person proclitic and the incorporated noun. Some of the morphemes which can appear immediately before the incorporated noun are illustrated in (7): a. negative, b. negative and mirative, c. causative, d. passive, e. associative applicative and reflexive, f. instrumental applicative, and g. associative applicative.

- (7) a. tanka:xü:pükpe jaʔ
 tan= ka:=xüw- pük -pe jaʔ
 A1(ERG)=NEG=name-grab-INCI.T 3AN
 'I do not know his name.' {lm2/303}

- b. ?ü:s tanka:japajamoype
 ?ü:tz tan= ka:=ja= pajam- mo:y?-pe
 I A1(ERG)=NEG=MIRAT=strength-give -INCI.T
 'I cannot hold it anymore.' {olu28/817}
- c. tyaknü: ?u:ki pa:ka?x
 ta= yak- nü:- ?u:k -i pa:kax
 C3(ERG)=CAUS-water-drink-INCD cow
 'He is giving water to drink to the cows.'
 {mil/308}
- d. jata ?iyak?ixko:kopü?kxi;
 jata ?i= yak- ?üxko:ko-pü?kx-i
 right_away A3(ABS)=PASS-back- pat -COMD
 'Right away, he was given a pat on his back.'
 {rs3/45}
- e. tamü:niwintojützij
 ta= mü:- ni- wintoj-jütz -i -j
 C3(ERG)=ASSOC1-RECP-face -scrape-INCD-INVD.I
 'They were scolding each other.' {id3/390}
- f. ja? kuyna?wxü?k ?itojxutuwope
 ja? kuy -na?w=xü=k ?i= toj- xutu-wop-pe
 3AN tree-AUGM=EV=AN A3(ERG)=INSTR-ass- hit-INCI.T
 'He is hitting it (the horse) on its buttocks with
 the stick.' {C9/53/502}
- g. ?inümi tamü:tzukintuni ja?xü?k ko?yaj
 ?i= nüm -i ta= mü:- tzukin-tun-i
 A3(ABS)=tell-COMD C3(ERG)=ASSOC1-fight -do -COMD

 ja?xü=k ko?yaj
 DEF=EV=AN devil
 'He says that he fought with the devil.'
 {C20/64/11}

Table 9 provides a sketch of the relative order of proclitics and prefixes in the verbal complex. Note that there are six slots before the incorporated noun. Thus, on purely morphological grounds there is no doubt that the incorporated noun is part of the verbal word.

TABLE 9. Order of Proclitics and Prefixes Preceding the Verb Stem

8	7	6	5	4	3	2	1
Person Proclitic	Negative	Mirative	Passive Causative	Associative Instrumental	Reflexive	<u>Noun</u>	Verb

In contrast, non-incorporated nouns do not have distributional restrictions. Recall that Olutec is a flexible word order language (see CH 2, §1) and free-standing nouns functioning as core (S, A, PO, and SO) and non-core arguments can precede or follow the verb.

1.2. Phonotactic Processes Operating in NI Constructions

The incorporated noun forms a phonological word with the incorporating verb. This is confirmed by prosodic rules, primary stress assignment, phonotactic processes and by the fact that it is impossible to interrupt the noun-plus-verb incorporating sequence with pauses. In this section, I will discuss some phonotactic processes which allow us to distinguish incorporating nouns from free-standing nouns. That is, incorporated nouns are subject to phonotactic rules that apply within words; whereas free-standing nouns are subject to phonotactic rules that apply to free-standing

words. This is additional evidence that the examples discussed above are clear cases of incorporation.

First, free-standing nouns with final consonant may optionally occur with an epenthetic vowel /ü/ in final position. Incorporated nouns cannot take the epenthetic vowel. As an illustration consider the free-standing noun meaning 'fire' in (8a) which appears with the final epenthetic vowel /ü/; whereas the incorporated version in (8b) does not include such a vowel. Additional examples are given in (9).

(8) a. tyükxkotik jünü
 ta= yükx -kot -i =k jün
 C3(ERG)=gather-together-COMD=AN fire
 'He kindled the fire.' {rspf2/47}

b. ?ijünüyükxkotu:ke?
 ?i= jün- yükx -kot -u =k =je?
 A3(ERG)=fire-gather-together-COMI=AN=that
 'He kindled that fire.' {rspf2/49}

(9)	<u>Free-standing noun</u>	<u>Noun in NI construction</u>
a.	kuyü 'tree'	kuy-ka?tz 'to cut trees' kuy-wü:t 'to lay sticks'
b.	mo:kü 'corn'	mo:k-chik 'to harvest corn' mo:k-piw 'to pick corn' mo:k-wop 'to hit dried corn'
c.	?amü 'huapango' (type of dance)	?am-?etz 'to dance huapango'
d.	?ayü 'leaf'	?ay-ketz 'to cut leaves'
e.	jünü 'fire'	jün-tu:t? 'to emit fire' jün-yem 'to blow on the fire'

Second, free-standing disyllabic nouns with a final consonant take an epenthetic glottal stop before the final consonant in cases in which there is no epenthetic vowel /ü/. Thus, disyllabic nouns with the canonical shape CVC(C)VC have two alternate phonetic realizations which are in free variation: either CVC(C)VʔC or CVC(C)VCü. The same nouns when incorporated appear without the epenthetic glottal stop or the epenthetic vowel. As an illustration, consider the free-standing noun meaning 'coffee' which occurs with the final epenthetic vowel /ü/ in (10a) and with the epenthetic glottal stop in (10b); whereas the incorporated version in (10c) includes none of the epenthetic segments.

- (10) a. porke tanka:ype tankafetü
 porke tan= ka:y -pe tan= kafet
 because A1(ERG)=roast-INCI.T A1(PSR)=coffee
 'Because I roast my coffee.' {aandc/424}
- b. tajuyu tankafeʔt
 tan= juy-u tan= kafet
 A1(ERG)=buy-COMI A1(PSR)=coffee
 'I bought my coffee.' {rp2/586}
- c. mü:tak ʔiposiyopxüʔk tyakafetʔu:ki
 mü:t=ak ʔi= posiyo-pi =xü=k
 and =AN A3(PSR)=mug -LOC=EV=AN
- ta= yak- kafet- ʔu:k -i
 C3(ERG)=CAUS-coffee-drink-INCD
 'And she makes it (the bird) to drink coffee out
 of her mug.' {rsch2/87}

Additional examples are given in (11).

(11)	<u>Free-standing noun</u>	<u>Noun in NI construction</u>	
a.	kafetü ~ kafeʔt	kafet-ʔu:k coffee-drink	'to drink coffee'
b.	jaykakü ~ jaykaʔk	jaykak-(k)ay person-eat	'to eat people'
c.	pa:kaxü ~ pa:kaʔx	pa:kax-to:k cow-sell	'to sell cows'
d.	pixtinü ~ pixtiʔn	pixtin-wix cotton-uproot	'to pick cotton'
e.	tzukinü ~ tzukiʔn	tzukin-tun fight-do	'to fight'
f.	xokotü ~ xokoʔt	xokot-pük grass-grab	'to gather grass'
h.	kayanü ~ kayaʔn	kayan-tun food-make	'to prepare food'

Third, the final nasal consonant of an incorporated noun assimilates to the point of articulation of the initial consonant of the incorporating verbal root. In (12) and (12b) the labial nasal becomes alveolar in contact with velar and alveolar consonants; in (12c) the alveolar nasal becomes labial in contact with a labial consonant; and in (12d) the alveolar becomes alveopalatal in contact with a palatal glide.

- (12) a. komom 'wooden post' + kek 'to change
[komonkek] 'to change wooden posts'
- b. tüm 'fruit' + tun 'to make'
[tüntun] 'to bear fruit'
- c. nü?pin 'blood' + pitzüm 'to exit'
[nü?pimpitzüm] 'to bleed'
- d. jün 'fire' + yükxkot 'to gather'
[jünjükxkot] 'to gather fire'

Finally, two different processes are attested when the final consonant of the incorporated noun is identical to the initial consonant of the verbal root with which it combines. On the one hand, when both the final segment of the incorporated noun and the initial segment of the verb is the glide /w/, the result is the sequence /:w/ 'lengthening (of the previous vowel) + glide,' as in (13a). On the other hand, when the two identical segments are consonants other than /w/, the result is that a geminated consonant is simplified to a single consonant, as in (13b-g).

- (13) a. ?aw-wüj = ?a:wüj
mouth-untie 'to untie an opening'
- b. kafet-tuk = kafetuk
coffee-cut 'to pick coffee beans'
- c. win-nu?x = winu?x
eye-cover 'to cover a surface'
- d. kü?-?o:k = kü?o:k
hand-die 'to have the hand fall sleep'
- e. kü?x-xuxum = kü?xuxum
foot-to go numb 'for the foot to go numb'

- f. wintoj-jütz = wintojütz
face-scrape 'to scold'
- g. jaykak-kay = jaykakay
person-eat 'to eat people'

The phonotactic processes which apply to constructions with incorporated nouns also apply to any multimorphemic word. That is to say that noun roots forming compounds as well as derived and inflectional words are subject to the same phonotactic processes discussed above. First, the noun meaning 'fire' is realized as jünü (with the final epenthetic vowel) when it is a free-standing word (8a), but as jün (without the epenthetic vowel) when it is an incorporated noun (8b) or when it is followed by another morpheme. The noun jün without the epenthetic vowel is the first element of a compound in (14a), the root of a derived verbal stem in (14b), and the root of an inflected word in (14c).

- (14) a. jün-kuy(ü) 'firebrand'
fire-stick
- jün-to:tz(ü) 'tongue of a flame'
fire-tongue
- jün-tük(ü) 'kitchen'
fire-house
- jün-tza:j(ü) 'coal, ember'
fire-stone

- b. jün-ʔax 'to exist fire on location'
fire-DNMZR:have
- jün-ʔi:yʔ 'to be feverish'
fire-DNMZR:become
- c. jün-jem 'on the fire'
fire-LOC:on
- jün-win-mü 'on the top of the fire'
fire-top-LOC:in
- jün-tük 'fires'
fire-PL

Second, bisyllabic nouns, such as the ones illustrated in (11), are subject to similar phonotactic rules both when they are incorporated and when they are part of compounds or suffixed words. For instance, the noun jaykak 'person,' similar to the incorporated noun in (11b), does not take any epenthetic segment when it is followed by another morpheme in a compound (15a), in a derivative (15b), cliticized (15c), or inflected (15d) word.

- (15) a. jaykakoʔke 'sea bass'
jaykak-koʔke
person-fish
- b. jaykaki:pa 'become a young man'
jaykak-ʔi:yʔ -pa
person-DNMZR:become-INCI.I
- jaykakatpe 'consider someone a
jaykak-ʔat -pe person'
people-DNMZR-INCI.T
- c. jaykakxü 'it is said, a person'
jaykak=xü
person=evidential

	jaykakaʔk jaykak=ak person=animate	'person'
	jaykakampoʔk jaykak=ʔampok person=also	'also a person'
d.	jaykaktüʔk jaykak-tük person-PL	'people'

The nasal coda of nouns is assimilated to the point of articulation of the onset of the following morpheme in a similar way to the process of assimilation shown in (12a-d). Consider the examples in (16).

(16) a.	tüntüʔk tüm̄ -tük fruit-PL	'fruits'
b.	wimpakü wiñ-pak eye-bone	'forehead'

The two different phonotactic processes illustrated in (13), vowel lengthening and degemination, which occur when the coda of the incorporated noun is the same segment as the onset of the incorporating verb, also apply when the coda of a noun is adjacent to an identical consonant in outset position belonging to the morpheme following the noun. The change of the glide to lengthening occurs in both (13a) and (17a). The degemination of identical consonants can be seen in (13b-g) and (17b).

- (17) a. ʔa:way(ü) 'mustache, beard'
 ʔaw̄ -way
 mouth-hair
- b. mo:kama 'cornfield'
 mo:k̄-kama
 corn-place prepare to plant
- c. ʔapitük 'thorns'
 ʔapit̄-tük
 thorn-PL
- d. kapapak(ü) 'ribs'
 kapap-pak
 chest-bone
- e. küʔampok 'also the person'
 küʔ=ʔampok
 hand=also
- f. pa:kaxü 'it is said a cow'
 pa:kax̄=xü
 cow =evidential

To sum up, incorporated nouns are subject to the same phonotactic processes as any other bound noun. That is to say, both phonological and morphological properties concur, supporting the claim that an incorporated noun forms a single word with an incorporating verb.

1.3 Formal Shape of Incorporated Nouns

In this section, I will focus on the morphological features of nouns which incorporate. Olutec exhibits many constraints with respect to what kind of nouns can

incorporate. Proper nouns do not incorporate² but both animate and inanimate nouns incorporate. Beyond this, each type of NI exhibits specific semantic restrictions with respect to which nouns can be incorporated. The differing semantic constraints will be considered in the following sections, where the properties of the four types of NI are discussed.

In all the examples illustrated above, the incorporated nouns do not have any inflectional affix or clausal clitic when they are incorporated. This is a general constraint shared by Olutec with most of the incorporating languages.

Many noun incorporating languages disallow incorporation of nominalizations, nominal compounds or derived nouns (see, for instance, Woodbury 1975 for Onondaga). Olutec does not exhibit this constraint. Examples of incorporated nominalizations, nominal compounds and derived nouns are given in (18).

(18) a. Nominalizations

<u>ʔu:y-an-tu:tʔ</u>	'prepare a trap for the
set_trap-NMZR_INSTR-put	gopher' <u>ʔu:y-an</u> 'trap'
<u>juʔk-an-kom</u>	'plant tobacco'
smoke-NMZR_INSTR-plant	<u>juʔkan</u> 'tobacco'
<u>kay-an-to:k</u>	'sell food'
eat-NMZR_INSTR-sell	<u>kayan</u> 'food'

ʔix-tük-ʔe:p 'look at oneself with the
watch_over-NMZR_INSTR-see mirror' ʔixtük 'mirror'

ʔükx-i-kipx 'weigh corn'
shell-NMZR-weigh ʔükxi 'corn'

jütz-i-jo:y 'mix corn dough'
grind-NMZR-mix jützi 'corn dough'

kay-e-tun 'prepare food'
eat-NMZR-make kaye 'food'

way-e-kü:t 'grind toasted corn'
crumble-NMZR-grind waye 'toasted corn'

b. Nominal Compounds

ʔay-tük-tun 'make a house out of leaves'
leaf-house-make ʔaytük 'house of leaves'

jün-tük-tun 'cook'
fire-house-make jüntük 'kitchen'

ma:xan-xüw-tun 'celebrate'
sacred-day-make ma:xanxüw 'holiday'

puy-waʔtz-kaʔtz 'cut up cornstalks'
thigh-clean-cut puywaʔtz 'cornstalk'

win-pak-tzüm 'carry with headband'
eye-bone-carry wimpak 'headband for carrying'

c. Derived Nominals

chu:chu-nak-ʔix 'take care of a child'
child-DIM-see

tük-ʔunak-tun 'build small houses'
house-DIM-make

jay-mo:k-chik 'harvest other people's corn'
another's-corn-harvest

tu:tʔ-ik-ya:xʔ 'cluck'
put-PCP-scream tuʔtik 'egg'

tzuj-ik-tu:tʔ 'put saliva on'
spit-PCP-put tzujik 'saliva'

Olutec also allows the incorporation of the nominalization of an already N+V complex. An example of the complex construction (N-V-NMZR)-V is given in (19). The incorporated noun tzu: 'night' plus the verb root ?ix 'watch over' form the complex verb 'to be at the wake'. This complex verb is nominalized by the suffix -i to form the noun tzu?ixi 'wake'. The nominalization is incorporated by the verb tun 'to do, to make' to form the verb tzu?ixitun 'to hold a wake'.

- (19) na?kxikoj tantzu?ixituni:tú?s
 na?kxi=koj
 when =just
- tan= tzu:- ?ix -i -tun-i -:t -ütz
 Al (ABS)=night-watch_over-NMZR-do -INCD-PL.SAP-EXCL
 'In those times we were holding a wake.'
 {C11a/10/11}

In sum, the constraint which operates in Olutec with respect to the morphological complexity of the incorporated noun can be formulated as follows: a noun can incorporate only if it does not carry clitics or inflectional affixes. Morphologically complex nouns such as nominalizations, compounds, and derivative nouns can incorporate.

2. Types of Noun Incorporation (NI)

Mithun (1984), who has perhaps most comprehensively investigated the topic of NI, has suggested that there are four major types of NI: Type I (Compounding), Type II (Manipulation of Case), Type III (Manipulation of Discourse Structure), and Type IV (Classificatory). The four types can be recognized based on their discourse function. The distinction among the four types is also corroborated by an implicational hierarchy according to which a language with only one type of NI must have Type I but a language which exhibits Type IV should also have Type III, Type II, and Type I.

Mithun (1984, 1994, 1998) has argued that NI "is perhaps the most nearly syntactic of all morphological processes. It combines constituents; namely N's and V's that are usually associated syntactically" (Mithun 1984:889). NI has been the object of major controversy due to its mixed morphological and syntactic features. Sapir (1911), Mithun (1984, 1986a, 1994, 1998), Anderson (1985), Di Sciullo and Williams (1987), Rosen (1989), Evans (1996), Velázquez-Castillo (1995b, 1996), inter alia, have argued that NI is a process that derives lexical items and not sentences. A different position has been defended by Baker

(1988a, 1995, 1996) who argues that NI is a purely syntactic process which can be characterized as head to head movement. Incorporated verbs are derived from analytic clauses via a syntactic transformation by which the head of the noun phrase adjoins to the verb and leaves behind a coindexed trace (Baker 1995:6). According to Baker's theory, only nouns which are sisters to the verb can incorporate. Thus, his theory predicts that only objects of transitive verbs and subjects of unaccusative verbs (which are considered underlying objects) can be the target of incorporation. Various studies on incorporation in particular languages (Allen, Gardiner and Frantz 1984, Shibatani 1990, Mithun 1984, 1998, Sasse 1984, Axelrod 1990, Polinsky 1990, Spencer 1995, Wilhelm 1992, Cook and Wilhelm 1998, inter alia) have demonstrated that Baker's assumptions do not hold once a large set of cases are reviewed. Since Sapir (1911), it has been well known that languages incorporate not only objects but also obliques such as instruments and locatives, and adjuncts such as secondary predicates and adverbs. Mithun's (1984) database also included cases in which the incorporated nouns were instruments and locations (e.g. Nahuatl). Polinsky (1990), Axelrod (1990), Cook and Wilhelm (1998) have investigated cases of languages in which unergative subjects can incorporate. And finally Sasse

(1984), Allen, Gardiner and Frantz (1984), Axerold (1990) and Wilhelm (1992) have presented cases of languages in which agents of transitive verbs incorporate. The literature has clearly shown that the target of incorporation is not restricted to what Baker's syntactic theory predicts.

Another point in the debate between the lexical vs. the syntactic view refers to the semantic and pragmatic differences found in NI constructions vs. their analytic counterparts. The syntactic view, which treats the N+V compound as a free variant of the analytic counterpart, predicts that incorporated nouns are similar to non-incorporated ones with respect to their referentiality and their ability to take modifiers. The lexical view defended by Mithun (1984), Velázquez-Castillo (1995b, 1996), Cook and Wilhelm (1998) *inter alia* have shown that the two constructions are not semantically equivalent. Many authors have pointed out that the incorporated nouns are generic thus they do not have the same semantic properties as the non-incorporated nouns. Even though NI is a productive process, the result is a new lexical item which diachronically may lose its phonological integrity and semantic transparency. It is also well known that in many languages there are incorporated verbs with no analytic counterpart. There are also incorporated constructions whose

meaning cannot be established compositionally, i.e the meaning of the whole cannot be predicted from the meaning of its parts (Bybee 1985:106). And finally, there are several semantic restrictions with respect to which nouns can enter into this construction. Cross-linguistically, inanimate nouns incorporate more easily than animates. In many languages only inalienable nouns incorporate within Mithun's Type II NI which will be discussed below. These restrictions cannot be claimed to be syntactically governed.

The Olutec data support a non-syntactic view of NI since, as I will show in detail below, the target of incorporation is not restricted to themes. The incorporated constructions are not semantic equivalents of the analytic counterparts. There are lexical constraints with respect to what type of noun can participate in NI constructions and there are also several cases in which the incorporated noun has become a derivational morpheme with no analytic counterpart. These features will be discussed with respect to each type of NI.

2.1 Type I NI

Mithun (1984, 1994) characterized Type I NI as a process of lexical compounding in which a noun and a verb

combine to form a new verb. According to Mithun, nouns holding a theme, location or instrument semantic relation with respect to the host verb can incorporate under Type I NI. Type I NI are compounds which denote culturally salient activities. As Sapir (1911) and Mithun (1984) have stated:

[...] what may be called typical or characteristic activities, that is, those in which activity and object are found regularly conjoined in experience (e.g. rabbit-killing, looking for a trail, setting a net), tend to be expressed by verbs with incorporated objects, whereas "accidental" or indifferent activities (e.g. seeing a house, finding a stone) are rendered by verbs with independent, syntactically determined nouns. (Sapir 1911:264)

The activity or quality designated by the NV compound is viewed as a recognizable, unitary concept, rather than the chance co-occurrence of some action or state and some entity. (Mithun 1984:849)

Nouns under Type I NI are not referential, and thus not individuated, and as such cannot combine with external modifiers. In this type of incorporation the noun restricts the scope of the action to specific types of entities. Mithun (1984:849) and Rosen (1989:309) among others have pointed out that the incorporated noun under Type I NI loses its syntactic status as an argument. This is evident when the incorporated noun holds a theme role with respect to a transitive verb root. Verbal compounds with incorporated themes behave as intransitive verbs in which the agent is

the only syntactic argument of the clause. Based on these observations, Foley and Van Valin (1985:338-347) and Givón (1990:626) among others have argued that Type I "object incorporation" is one of the structural manifestations for encoding the antipassive voice. In canonical antipassives the theme is low in topicality and the clause is intransitive. These two features are shared by Type I "object incorporation" since the incorporated noun has a generic reading and the construction is formally intransitive (Hopper and Thompson 1980:257-259).

Olutec Type I NI is a productive process. The most common target for this type of incorporation is the second selected argument of transitive verb roots, i.e the theme. The incorporated noun kayan 'food' in (20) is the semantic theme of the verb to:k 'to sell'.

- (20) jumü tankayanto:ke:tü?s
 jumü tan= kayan-to:k-e -:t -ütz
 where A1(ABS)=food- sell-INCD-PL.SAP-EXCL
 '[...] where we are food-selling.' {rs3/77}

Other roles which are the target of Type I NI are: themes of intransitives (21), agents of transitives (22), instruments (23), and locations of transitives (24a) and intransitives (24b).

- (21) nü:ʔawkompeta
 nü:- ʔaw- kom -pet -pa
 water-mouth-grow-DIR:up-INCI.I
 'The stream is swelling up.' {DICT}
- (22) takuʔkuwü:nüp tanküʔjem
 ta= kuʔku-wü:n-ü -pa tan= küʔ -jem
 B1 (ABS)=cramp-pull-INV-INC.I A1 (PSR)=hand-LOC
 'I got a cramp in my hand.' (Lit. 'The cramp
 pulled me from my hand.') {C11a/84/942}
- (23) taxyakʔonatoye jeʔ xükü
 tax= yak- ʔona-toy -e jeʔ xük
 C1 (ERG)=CAUS-lard-be hot-INC.D that beans
 'I fry those beans.' (Lit. 'I make the beans hot
 with lard.') {rspf2/560}
- (24) a. yaknüʔkunaʔk nitüktu:tüwaʔ
 yaknüʔk-ʔunak
 poor -DIM
 ø= ni- tük- tu:tʔ-ü -w -aʔ
 B3 (ABS)=RFLX-house-put -INV-COMI-NMZR
 'The poor little one (who lived at home)' (Lit.
 'The poor little one (who put himself at home)'
 {C11a/42/650}
- b. yaʔk me:xatüki:paʔ;
 yaʔ =ak ø= me:xa-tükʔi:yʔ-paʔ
 this=AN B3 (ABS)=table-enter -NF
 'the waitress' (Lit. 'that one who goes in the
 tables') {rs3/25}

2.1.1 Transitive Verbs with Incorporated Themes

Within Type I NI constructions, the most common target for incorporation is the theme of canonical transitive verb roots. Examples of this construction are (20) and (25).

- (25) ʔa:nimakaypa jeʔk mu:xi
 ø= ʔa:nima- kay-pa jeʔ =k mu:xi
 B3 (ABS)=dead person-eat-INCI.I that=AN bird
 'That bird is human-corpse-eating.' {rsch2/306}

The verb roots to:k 'to sell' in (20) and kay 'to eat' in (25) are agentive bivalent verbs that select an agent as a first argument, and a theme as a second argument. The N+V complexes in (20) and (25) are intransitive. This is confirmed by comparing two morphosyntactic features of clauses with incorporated and unincorporated themes. First, the agent is expressed with the ergative proclitic in transitive clauses with free-standing themes, as in (26a-b); whereas the agent is expressed with the absolutive proclitic in constructions where the theme is incorporated, as in (20) and (25).

- (26) a. kawaʔk tükxpa xto:ke ʔoja:pa
 kawak ta= nükx-pa tax= to:k-e
 banana B1 (ABS)=go -INCI.I C1 (ERG)=sell-INCD

 ʔoja:pa
 Ojapa
 'I used to go to Ojapa to sell bananas.' {lm3/386}
- b. jo: ʔa:nimak ʔikayu jeʔ mu:xi
 jo: ʔa:nima =k ʔi= kay-u jeʔ mu:xi
 yes dead_person=AN A3 (ERG)=eat-COMI that bird
 'Yes, that bird ate the dead person.' {rsch2/413}

Thus, in this respect NI constructions, such as (20) and (25), are like intransitive clauses whose only participant is marked with the absolutive proclitic on the verb, as in (27a-b).

- (27) a. yankoj tantijaʔn
yaʔ+mü=koj tan= tij -aʔn
here =just A1(ABS)=stay-IRR
'I am going to stay right here.' {olu5/111}
- b. ka:kaypa yaʔaj yoʔjwa
ø= ka:=kay-pa yaʔaj yoʔjwa
B3(ABS)=NEG=eat-INCI.I this man
'This man doesn't eat.' {olu6/110}

The second morphological fact signaling the intransitive status of NI structures is the selection of the incompletive marker. Independent clauses (not embedded clauses) can take two incompletive suffixes depending on the transitivity of the clause. Transitive clauses take the suffix -pe, as in (28a), whereas intransitive clauses take the suffix -pa, as in (28b) (see CH. 3, §3.1). NI constructions are like intransitive clauses since they take the suffix -pa, as in (25).

- (28) a. ʔe:mexüʔk ʔikaype mixtuʔn mü:t xuʔni;
ʔe:me=xü=k ʔi= kay-pe mixtun mü:t xuʔni
sinew=EV=AN A3(ERG)=eat-INCI.T cat and dog
'Cats and dogs eat sinew' {rspf2/490}
- b. takaypakoj ʔü:s
ta= kay-pa =koj ʔü:tz
B1(ABS)=eat-INCI.I=just I
'I am just eating.' {vg/736}

2.1.1.1 The Incorporated Noun is Generic

It is common to find Type I NI constructions in descriptions of events which involve non-topical, generic, non-referring, and non-specific themes, i.e., entities which are unimportant participants of the activity described. As an example, consider the next fragment of an autobiography in which the speaker names the type of activities that she used to do when she was younger. There are four verb tokens in which the noun referring to the theme appears incorporated. The incorporated noun does not have a specific referent in any of these tokens. Instead, the incorporated noun always has a generic reading.

- (29) a. taye:ku taʔoyu yoxetumpaʔ kosine:ra
 ta= ye:k-u ta= ʔoy -u
 B1 (ABS)=grow-COMI B1 (ABS)=went-COMI
- yox+e-tun-pa+ʔ kosine:ra
 work -do -NF cook
- b. tanü:püku
 ta= nü:- pük -u
 B1 (ABS)=water-grab-COMI
- c. tajützu tanü:nüpüʔkxu
 ta= jütz -u ta= nü:nü- püʔkx-u
 B1 (ABS)=grind-COMI B1 (ABS)=tortilla-pat -COMI

- d. takayantunu
 ta= kay+an-tun-u
 B1 (ABS)=food -do -COMI

'(a) [...] I grew up, I went to work [do-job] as a cook, (b) I carried water, (c) I did milling, I made tortillas, (d) I prepared food.' {C6/46/65-7}

Incorporated nouns cannot be modified. For example, the presence of adjectives, determiners and other modifiers which would specify the reference of the incorporated noun küpi 'wood' (30a) and kafet 'coffee' (31a) produces ill-formed structures such as (30b) and (31b).

- (30) a. tantzü? nüxpak küpipükpa?
 tan= tzü? ø= nüx-pa =k
 A1 (PSR)=mother B3 (ABS)=go -INCI.I=AN

küpi- pük -pa+?
 firewood-grab-NF
 'My mother is going to bring firewood.'
 {C11a/88/13}

- b. * tantzü? nüxpak (ya?aj/tü?ütz?aj) küpipükpa?
 (this /which is dried)
 Intended reading: 'My mother is going to bring
 (this/which is dried) wood.'

- (31) a. min= kafet- ?u:k -a?n tzu: -pi
 A2 (ABS)=coffee-drink-IRR night-LOC
 'You are going to drink coffee at night.'
 {C11b/11/20}

- b. * (jamaj/toypa?) minkafet?u:ka?n tzu:p
 (that /hot)
 (Intended reading: 'You are going to drink
 (that/hot) coffee at night.')

Quantifiers and numerals occurring in clauses with Type I NI have scope of modification over the whole complex

predicate. As an example consider (32), where the the scope of modification of the adverbial quantifier seme 'a lot' is the whole predicate ?iyakpiyuye:ki 'she breeds chickens'. The reading: 'my mother used to breed many chickens,' in which the scope of modification of seme is only the incorporated noun piyu, is not acceptable.

- (32) tantzü? seme ?iyakpiyuye:ki
 tan= tzü? seme
 A1(PSR)=mother a_lot

 ?i= yak- piyu -ye:k-i
 A3(ABS)=CAUS-chicken-grow-INCD
 'My mother used to breed chickens a lot.'
 {C9/48/469}
 * 'My mother used to breed many chickens.'

In contrast, free-standing nouns referring to the theme may co-occur with modifiers and then have a specific interpretation. The modifiers can be adjacent to the noun, as in (33a-c), or can be separated by other elements of the clause, i.e., the modifiers and the free-standing noun referring to the theme may form a discontinuous constituent, as in (34a-c).

- (33) a. pero jama:k weka ?ikaywa?kok ta?na ?u:pi?k
 pero jamaj=k weka ?i= kay-w -a? =koj =k
 but that =AN frog A3(ERG)=eat-COMI-PERF=just=AN
ta?na ?u:pi:k
 a lot chilli sauce
 'But that frog had already eaten a lot of the
 chilli sauce.' {zopil/121}
- b. jem xkayan ya?aj nü:nü
 je?+mü tax= kay-an ya?aj nü:n
 there C1(ERG)=eat-IRRD this tortilla
 'I am going to eat this tortilla there.'
 {pesca/31}
- c. ?iküxik takayi ?a:nima ?ikü?
 ?i= kUX -i =k ta= kay-i
 A3(ABS)=finish-COMD=AN C3(ERG)=eat-INCD
?a:nima ?i= kü?
 dead person A3(PSR)=hand
 'He finished eating the dead person's hand.'
 {rsch2/385}
- (34) a. porke ta?nak takaye ?u:pi?k
 porke ta?na=k ta= kay-e ?u:pi:k
 because a lot=AN C3(ERG)=eat-INCD chilli sauce
 'Because he ate a lot of the chilli sauce.'
 {zopil/126}
- b. ?ü:sak ya?aj tyak?o:ku tzana?y
 ?ü:tz=ak ya?aj tan= yak- ?o:k-u tzanay
 I =AN this A1(ERG)=CAUS-die -COMI snake
 'I killed this snake.' {rs477/191}
- c. tu?k wo:ntzo?tenakak tajuyi ?ampanü:jü
 tuk wo:ntzo?te-nak=ak ta= juy-i
 one quarter -DIM=AN C3(ERG)=buy-INCD
?an+pa -nü:
 burning-water
 'He used to buy a small quarter of liquor.'
 {vg37/294}

In sum, the incorporated theme in Type I NI constructions does not refer to a specific entity. The

compounds N+V lexicalize activities in which the semantic reading of the theme is always generic.

2.1.1.2 The Syntactic Status of the Incorporated Noun

The incorporated noun in Type I NI is syntactically inert, i.e., the incorporated noun does not hold any of the four morphological properties which identify the direct core arguments of the clause.³ First, direct core arguments can trigger plural marking on the verb; second, they can cross-reference the ergative or absolutive pronominal proclitic occurring before the verb stem; third, when they refer to a third-person animate participant, they may cross-reference the animate enclitic attached to one of the words of the clause; and fourth, direct core arguments can be relativized. These four properties are considered in order.

Third-person core arguments may trigger plural marking on the verb, as is true for the only argument of the intransitive clause in (35a) and the agent of the transitive clause in (35b).

- (35) a. jemak ʔiʔitküxi mixtuntüʔk
 jeʔ+mü=ak ʔi= ʔit -küx-i mixtun-tük
 there =AN A3(ABS)=exist-PL3-INCD cat -PL
 ‘The cats are there.’ {aand/93}

- b. jeʔk naʔwunaʔk mü:tak jeʔ jaytzüʔnaʔk nükxi
 taʔe:pküxi
- jeʔ =k naʔaw -ʔunak mü:t=ak jeʔ jaytzüʔ -nak
 that=AN old_man-DIM and =AN that old_lady-DIM
- nükx-i ta= ʔe:p-küx-i
 go -COMD C3(ERG)=see -PL3-INCD
 'The little old man and the little old woman went
 to see him.' {hijomez/26}

Oblique arguments cannot control the third-person plural marking on the verb. This is illustrated in (36) where the verbal root plus the suffix -küx is ill-formed since the locative argument with plural reference cannot be indexed by the third-person plural marker on the verb.

- (36) a. jeʔ ʔu:rak tampeti ʔikawa:yuʔp
 jeʔ ʔu:ra=k tan= pet -i
 that hour =AN A1(ABS)=ascend-COMD
- ʔi= kawa:yu-pi
 A3(PSR)=horse -LOC
 'At that time I mounted his horse.' {ch/diabl/78}
- b. * jeʔ ʔu:rak tampeti ʔikawa:yütükpi
 jeʔ ʔu:ra=k tan= pet -küx-i
 that hour =AN A1(ABS)=ascend-PL3-COMD
- ʔi= kawa:yu-tük-pi
 A3(PSR)=horse -PL -LOC
 (Intended reading: 'At that time I mounted all his horses one by one.')

A theme acting as syntactic argument may trigger plural marking on the transitive verb whereas an incorporated theme cannot. The unincorporated nouns referring to the theme in

(37a-b) have plural reference and control third-person plural marking on the verb.

- (37) a. xtzaküxi xujta:tutükü
 tax= tzak-küx-i xujta:tu-tük
 C1(ERG)=send-PL3-COMD soldier -PL
 '[...] I sent the soldiers.' {id3/553}
- b. porke ?iyaküxkükpek tantu:tukawo?k
 porke ?i= yak- küx -küx-pe =k
 because A3(ERG)=CAUS-finish-PL3-INCI.T=AN
- tan= tu:tuk-?awok
 A1(PSR)=turkey-DIM
 'Because he is finishing my little turkeys.'
 {lm4/498}

The ill-formed structure in (38b) shows that the incorporated theme with plural reference cannot trigger third-person plural marking on the verb.

- (38) a. tamajawkepno?om
 ta= majaw-kep -nü -am
 B1(ABS)=woman-look for-already-IRRI
 'I am going to look for a woman/for women.'
 {C10/81/231}
- b. * ta= majaw-kep -küx-nü -am
 B1(ABS)=woman-look for-PL3-already-IRRI
 (Intended reading: 'I am going to look for women.')

Thus, with respect to this particular property, one can conclude that incorporated themes are not syntactic arguments.

The second property refers to the possibility of the theme being signaled by the pronominal proclitic on the

verb. Only direct core arguments can be overtly expressed by the pronominal proclitics. In transitive direct constructions the agent is signaled by the ergative proclitic, as illustrated in (39).

- (39) a. jaytzuʔtzuʔchi tankaype
 jaytzuʔ-tzuʔchi tan= kay-pe
 deer -meat A1(ERG)=eat-INCI.T
 'I eat meat of deer.' {olu28/148}
- b. jeʔ minkayam mü:t nü:jü
 jeʔ min= kay-am mü:t nü:
 that A2(ERG)=eat-IRRI with water
 'You are going to eat that one with water.'
 {rp3/622}
- c. ʔikayuk ʔipiyu jeʔ mu:xi
 ʔi= kay-u =k ʔi= piyu jeʔ mu:xi
 A3(ERG)=eat-COMI=AN A3(PSR)=chick that bird
 'That bird ate its chick.' {rsch2/256}

In contrast, in the inverse construction the agent is not expressed by the pronominal proclitic on the verb. The theme, on the other hand, is overtly signaled by the absolutive proclitic, as seen in (40a-b).

- (40) a. taʔawtzowüwak jeʔk ʔe:xi
 ta= ʔawtzow-ü -w =ak jeʔ =k ʔe:xi
 B1(ABS)=answer -INV-COMI=AN that=AN foreigner
 'That foreigner answered me.' {rp2/418}
- b. miʔe:panüpak minta:tatük
 mi= ʔe:p-anüpa =k
 B2(ABS)=see -INV+IRRI=AN
- min= ta:ta -tük
 A2(PSR)=grandson-PL
 'Your grandsons are going to take care of you.'
 {aand/330}

Unincorporated nouns (41a) or independent pronouns (41b) referring to the theme of transitive inverse clauses cross-reference the absolutive pronominal proclitic.

- (41) a. jaʔme:k ʔijatiy tantúkaw
 jaʔmej =k ʔi= jat -i -y
 in_that_way=AN A3(ABS)=happen-COMD-INVD.C
 tan= túkaw
 A1(PSR)=father
 'That happens to my father.' {viaj3/121}
- b. mü:t ʔü:sü tyaktziyünüp taʔnük kuʔku
 mü:t ʔü:tz ta= yak- tzi:yʔ-ü -nú -pa
 and I B1(ABS)=CAUS-stick -INV-already-INCI.I
 taʔnük kuʔku
 big cramp
 '[...] and cramps are already getting me.' (Lit.
 and cramps are already grabbing me.) {viaj2/79}

In contrast, incorporated themes cannot cross-reference the absolutive proclitic. The third-person absolutive in (42a) cross-references the agentive noun phrase paʔkoxü chikxpakaʔ majawtük 'many pretty women' and not the incorporated noun kayan 'food'. Examples (42b-c), with first and second-person absolutive, are even clearer cases. The pronominal proclitic on the verb signals the agent of the clause and not the theme, since the person of the incorporated theme does not correspond to the person of the

absolutive proclitic: first-person in (42b) and second-person in (42c).

- (42) a. paʔkoxü chikxpakaʔ majawtǘk jem ʔi kayanto:ke
 paʔko=xü chikxpak-aʔ majaw-tük jeʔ+mü
 a_lot=EV pretty -NMZR woman-PL there
 ʔi= kayan-to:k-e
 A3(ABS)=food- sell-INCD
 'Many pretty women were selling food there.'
 {rs3/6}
- b. jumü tankayanto:ke:tüʔs
 jumü tan= kayan-to:k-e -:t -ütz
 where A1(ABS)=food- sell-INCD-PL.SAP-EXCL
 '[...] where we are selling food.' {rs3/77}
- c. minkafetʔu:kaʔn tzu:p
 min= kafet- ʔu:k -aʔn tzu: -pi
 A2(ABS)=coffee-drink-IRRDR night-LOC
 'You are going to drink coffee at night.'
 {C11b/11/20}

The third property which distinguishes core arguments is only relevant when the participant in question is a third-person animate. The enclitic =(a)k 'AN(imate),' which may attach to any of the elements of a clause, appears when there is a third person animate participant acting as a syntactic argument. For instance, one, or more than one, of the words of an intransitive clause can carry the enclitic =(a)k when the reference of the head of the core argument of the same clause is a third person human (43a) or animal (43b). The enclitic is attached to the verb in (43a), and to both the demonstrative and the deictic adverb in (43b).

- (43) a. minküxpaxúʔk kapeʔnüpaj xujta:tutük
 mi:nʔ-küx-pa =xú=k kapeʔnü:-pi -ʔaj
 come -PL3-INCI.I=EV=AN Acayucan-LOC-NMZR
 xujta:tu-tük
 soldier -PL
 'The soldiers from Acayucan came.' {id3/159}
- b. jeʔk mixtunü yamak ʔimini
 jeʔ =k mixtun yaʔ+mü=ak ʔi= mi:nʔ-i
 that=AN cat here =AN A3(ABS)=come -COMD
 'That cat came here.' {aand/2}

The enclitic =(a)k cannot occur in intransitive clauses in which the reference of the core argument is not a third-person animate. The enclitic does not occur in (44a-c) since the only core participant involved is inanimate.

- (44) a. tüwiʔk tu:jü minu ʔuxüwi mü:t ja:mu
 tüwik tu:j ø= mi:nʔ-u ʔuxüwi mü:t ja:mu
 strong rain B3(ABS)=come -COMI night with wind
 'A downpour came last night together with wind.'
 {rspf2/397}
- b. jaʔmej ʔimiʔn yaʔaj ʔisto:ryanaʔk
 jaʔmej ʔi= mi:nʔ-i yaʔaj ʔisto:rya-nak
 in that way A3(ABS)=come -INCD this story -DIM
 'This little story develops in this way.' (Lit.
 'The little story comes in this way.')
- c. ʔimiʔn jaj ga:s
 ʔi= mi:nʔ-i jaʔ ga:s
 A3(ABS)=come -INCD DEF oil
 'The oil is coming.' {rp3/927}

Intransitive clauses whose only core argument is first, (45a), or second-person, (45b), also do not carry the enclitic =(a)k.

- (45) a. ʔü:s tamimpa yam
 ʔü:tz ta= mi:nʔ-pa yaʔ+mü
 I B1 (ABS)=come -INCI.I here
 'I am coming here.' {aand/344}
- b. mika:miʔnam japom
 mi= ka:=mi:nʔ-am japo:m
 B2 (ABS)=NEG=come -IRRI tomorrow
 'Aren't you going to come tomorrow?' {aandb/64}

The enclitic =(a)k is absent within clauses where a third-person animate participant does not hold a core argument relation. This is illustrated in both (46a-b) where the animate participant functions as dependent (possessor) of the inanimate noun (possessum) and not as a core argument. In (46a) the inanimate possessum is the only core argument of the intransitive clause. In (46b) the first person participant acts as the only core argument of the intransitive clause, whereas the inanimate possessum is an oblique argument. Note that =(a)k is absent in both examples.

- (46) a. ʔipelo:ta ʔimiʔn
 ʔi= pelo:ta ʔi= mi:nʔ-i
 A3 (PSR)=ball A3 (ABS)=come -INCD
 'The ball (of the kid) is coming.' {rspf1/640}
- b. yam tamiʔn ta:wo waldeʔs ʔitükmü
 yaʔ+mü tan= mi:nʔ-i ta:wo waldetz
 here A1 (ABS)=come -INCD Octavio Valdez
- ʔi= tük -mü
 A3 (PSR)=house-LOC
 'I used to come here to the house of Octavio Valdez.' {lm3/581}

The enclitic =(a)k may attach to any word of transitive constructions when one of the syntactic arguments of the clause is an animate third-person participant. The two tokens of the enclitic =(a)k in (47a) are controlled by the third-person-animate agent jama:k weka 'that frog'. In (47b) the presence of the enclitic is triggered by a third-person-animate theme jaykako?ke tũ?sajũ 'dry sea bass'.⁴ In contrast, in (47c) the two tokens of the enclitic =(a)k are controlled by both the agent and the theme, which are third-person animate core arguments of the clause.

- (47) a. jama:k weka ?ikaywa?kok ta?na ?u:pi?k
 jamaj=k weka ?i= kay-w -a? =koj =k ta?na
 that =AN frog A3(ERG)=eat-COMI-PERF=just=AN a_lot
 ?u:pik
 sauce
 'That frog had already eaten a lot of the sauce.'
 {zopil/121}
- b. jaykako?ke tũ?sajũ tankayumpoka?k
 jaykak=k-ko?ke tũ?ütz-?aj tan= kay-u =mpok=ak
 people-fish dry -NMZR A1(ERG)=eat-COMI=also=AN
 'I also ate dry sea bass.' {viaj3/160}
- c. dejemũ takayi je?k mu:xi je?k majawũ
 dejem ta= kay-i je? =k mu:xi je? =k majaw
 after C3(ERG)=eat-COMD that=AN bird that=AN woman
 'After that, the bird ate that woman.' {rsch2/371}

The enclitic =(a)k does not occur in transitive clauses when neither of the direct core arguments is a third-person

animate. Examples of clauses in which the presence of the enclitic is disallowed are (48a-c). The agent and the theme are speech-act participants in (48a). The agent is first-person and the theme is inanimate in (48b). The agent and theme are inanimate in (48c).

- (48) a. mü:t mi:sü yankoj x?e:pe
 mü:t mi:tz ya?+mü=koj tax= ?e:p-e
 and you here =just C1(LOCAL)=see -INCD
 'and I am looking at you only here.' {olu4/34}
- b. ka:na?kxej xkayi tu:rupakü
 ka:=na?kxej tax= kay-i tu:ru-pak
 NEG=when C1(ERG)=eat-INCD bull -bone
 'I never eat bones of bulls.' {rspf2 462}
- c. ?ito?kxkotpe tankü?xta jaj ta?nük ku?ku
 ?i= to?kx+kot-pe tan= kü?x+ta ja?
 A3(ERG)=bend -INCI.T A1(PSR)=foot DEF
 ta?nük ku?ku
 big cramp
 'The cramp is bending my foot.' {viaj2/80}

Type I NI constructions take the enclitic =(a)k when the agent of the clause is a third-person animate participant, as in (49a-c).

- (49) a. ka:?awoktunuk weka
 ka:=ø= ?awok- tun-u =k weka
 NEG=B3(ABS)=offspring-do -COMI=AN frog
 'The frog didn't have offspring.' {idi/305}
- b. ka:tu?awtukpak tzana?y
 ka:= ø= tu?aw-tuk -pa =k tzanay
 NEG=B3(ABS)=road -cross-INCI.I=AN snake
 'There is no snake crossing by the road.' {rs2/41}

- c. mo:kchikpak wena?kxej ya?ak tanjesu?s
 ø= mo:k-chik -pa =k wew+na?kxej ya? =ak
 B3 (ABS)=corn-harvest-INCI.I=AN then this=AN
- tan= jesus
 A1 (PSR)=Jesus
 'My (husband) Jesus was harvesting corn then.'
 {C11a/13/447}

The fact that the only animate participant of the clause in (49b,c) is the agent clearly demonstrates that the enclitic =(a)k is controlled by this participant. On the other hand, even though both the agent and the incorporated theme are animate in (49a), only the unincorporated agent can control the animate enclitic. If the incorporated theme were the participant controlling =(a)k in (49a), this enclitic would also occur in clauses in which the incorporated theme is the only third-person animate participant involved. Cases which fulfill this condition are (50a-c). In none of these examples is the presence of the enclitic =(a)k allowed, showing clearly that the incorporated theme is not treated as a syntactic argument of the clause.

- (50) a. tantijnej ya:pü tantükju:ni:nyo tan?unaktuni
 tan= tij -nü -i ya:+pi
 A1 (ABS)=stay-already-COMD here
- tan= tük+ju:n+ni:y?-nü -e
 A1 (ABS)=live -already-INCD

- tan= ʔunak- tun-i
 A1 (ABS)=offspring-do -INCD
 'I kept living here, making kids.' {ch/reb/250}
- b. taʔoyu ʔunakʔixpaʔ
 ta= ʔoy -u ʔunak- ʔix -pa+ʔ
 B1 (ABS)=went-COMI offspring-take care-NF
 'I went as a baby-sitter.' {C6/48784}
- c. miʔutüp minkoʔkeje:pe
 mi= ʔut -ü -pa min= koʔke-je:p -e
 B2 (ABS)=like-INV-INCI.I A2 (ABS)=fish -catch-INCD
 'Do you like fishing?' {C9/81/693}

There is a fourth syntactic property by which one can distinguish, on the one hand, core from non-core arguments, and on the other hand, non-core arguments which are syntactically active from the ones which are inactive or inert (Polinsky 1995). Core arguments are relativized by restrictive relative clauses in postnominal position. Relative clauses of core arguments are nominalizations. The strategy used for relativization of core arguments is gapping, i.e., the relativized argument is not expressed by a noun or pronoun within the relative clause.

Relativization on the agent is illustrated in (51a), and on the theme in (51b). The relative clauses in the examples appear within brackets.

- (51) a. tankepe majawü [ʔijatpeʔ tatuni kayaʔn]
 tan= kep -pe majaw
 A1(ERG)=look_for-INCI.T woman
 ʔi= jat-pe -ʔ ta= tun -i kayan
 A3(ERG)=can-INCI.T-NMZR C3(ERG)=make-INCD food
 'I am looking for women who know how to prepare food.'
- b. jeʔk yoʔjwa [yakʔo:küwaʔ tanti:o] yaktaji:yu jaʔ
 jeʔ =k yoojwa ø= yak+ʔo:k-ü -w -aʔ
 that=AN man B3(ABS)=kill -INV-COMI-NMZR
 tan=ti:o ø= yak- taj+ʔi:yʔ-u jaʔ
 A1(PSR)=uncle B3(ABS)=PASS-bury -COMI 3AN
 'The man whom my uncle killed was buried.'

In contrast, two important differences are attested when an oblique argument is relativized. First, the verb is not nominalized. And second, a pronoun, identifying the argument being relativized, is required. As an example consider (52) where the interrogative word jumü 'where' functions as relative pronoun in relation with the locative noun jeʔ muraʔt 'the shoulder bag'. Observe that the nominalizer -(a)ʔ suffixed to the verb in (51a-b) is absent in (52).

- (52) tanpa:tuk jeʔ muraʔt [jumü tanchikxi me:nyu]
 tan= pa:t-u =k jeʔ murat jumü
 A1(ERG)=find-COMI=AN that bag where
 tax= chikx-i me:nyu
 C1(ERG)=have -COMD money
 'I found the shoulder bag where I had the money.'

Incorporated nouns diverge from both core and oblique arguments with respect to this fourth syntactic property.

None of the strategies used in the relativization of arguments (core and oblique) are available to the incorporated nouns. For this reason I refer to them as semantic arguments which are syntactically non-active or inert.

In sum, it has been demonstrated that the incorporated theme under Type I NI is syntactically inert since it does not hold any of the four formal properties which identify a direct core argument of the clause.

2.1.1.3 Degree of Semantic Transparency in N(Theme)+V Incorporation

Sapir (1911) and Mithun (1984), among others, have argued that N+V compounds denote activities which are culturally relevant, worthy of naming, and for that reason are coined as unitary lexical items. An extensive inventory of the most common Olutec Type I NI compounds within my corpus are provided in (53).

(53)	<u>N+V</u>	
	ʔam-ʔetz	'dance huapango'
	ʔa:nima-kay	'eat dead person'
	ʔa:nima-tajʔi:yʔ	'bury people'
	ʔawok-tun	'have babies'
	ʔarrotz-nex	'crush rice'
	ʔay-ketz	'cut leaves'

ʔay-tük-tun	'make houses out of leaves'
ʔe:xi-kep	'look for crabs'
ʔi:tzümü-juy	'buy pigs'
ʔu:yan-tu:tʔ	'prepare traps for gophers'
ʔükxi-kipx	'weigh corn'
ʔükxi-yey	'spread out corn'
ʔunak-ʔix	'carry a child'
ʔunak-tun	'make kids'
chu:chu-nak-ʔix	'take care of a child'
jay-mo:k-chik	'harvest other people's corn'
jaykak-kay	'eat people'
joko-tu:tʔ	'emit smoke'
juʔkan-juʔk	'smoke cigar'
juʔkan-kom	'plant tobacco'
juʔkan-piw	'pick tobacco'
jützi-jo:y	'mix corn dough'
kafet-ʔu:k	'drink coffee'
kafet-nex	'crush coffee'
kafet-tuk	'pick coffee beans'
kafet-xit	'spread out coffee beans'
kafet-yey	'spread out coffee beans'
kama-yu:jʔ	'clear out the underbrush'
kayan-kep	'look for food'
kayan-to:k	'sell food'
koʔke-je:p	'catch fish'
koʔke-tza:yʔ	'grill fish'
koʔpan-to:k	'sell hats'
ko:xo-nax	'spend the days'
komom-kek	'change wooden posts'
kü:k-tun	'make a hole'
küpi-kaʔtz	'cut wood'
küpi-puʔ	'split wood'
küpi-pük	'bring wood'
kuy-kaʔtz	'cut trees'
kuy-wü:t	'lay sticks'
limu:xna-piw	'beg (for charity)'
maʔtzu-kep	'look for a lover'
ma:nku-tuk	'cut mangoes'
ma:xan+xüw-tun	'celebrate a party'
majaw-kep	'look for a woman'
majaw-kü:t	'have intercourse with a woman'
majaw-pa:t	'find a woman'
me:xa-ni:+ki:p	'clean tables'
mi:xa-ʔix	'attend mass'
mi:xa-tun	'hold a mass'

moʔtzo-jo:y	'mix mud'
mo:k-chik	'harvest corn'
mo:k-piw	'pick corn'
mo:k-wop	'thresh'
mü:kʔi-tun	'make tamales'
nakan-tun	'make cages'
nawi-jep	'scrape agave fiber'
noki-ʔix	'read paper'
noki-tzak	'send letters'
noki-win+may	'read paper'
nüʔpin-tun	'menstruate, bleed'
nü:-ʔu:k	'drink water'
nü:-pük	'carry water'
nü:-tü:nʔ	'have diarrhea'
nü:-wetz	'lick water'
nü:nü-püʔkx	'make tortillas'
pa:kax-to:k	'sell cows'
pitzi-kop	'wash corn'
pixtin-wix	'pick cotton'
piyu-nüʔx	'put eggs under a hen'
poʔa-tun	'menstruate'
po:ma-tu:tʔ	'put incense'
püji-kom	'plant flowers'
pun:atu-jup	'turn a plate over'
puxan-wü:n	'ring the bells'
puxan-yak+ʔu:pʔi:yʔ	'ring the bells'
puy+waʔtz-kaʔtz	'cut up cornstalks'
puy+waʔtz-wop	'cut up cornstalks'
taʔw-pe:tʔ	'sweep the patio'
to:ki-kep	'look for iguanas'
tuʔaw-tuk	'cross the road'
tu:j-chi:wʔ	'use rain for bathing'
tu:tʔik-tu:tʔ	'lay eggs'
tu:tʔik-ya:xʔ	'announce eggs, cluck'
tu:tz-wü:t	'roof with palm leaves'
tuku-ʔaw+xuyʔi:yʔ	'mend clothes'
tuku-to:k	'sell clothes'
tük-chikx	'take care of houses'
tük-tun	'make a house'
tük-wü:t	'roof houses'
tük+küʔjuy	'rent houses'
tükʔunak-tun	'build small houses'
tüm-tun	'bear fruit'
tü:tz-puj	'brush teeth'
tyempo-ʔix	'forecast the weather'
tzuʔtzi-tza:yʔ	'roast meat'

tzu:+ʔixi-tun	'hold a wake'
tzu:-nax	'spend the night'
tzukin-kep	'be a fight-picker'
tzukin-tun	'fight (fight-do)'
waye-kü:t	'grind toasted corn'
wükxi-tun	'make a griddle'
xokot-pük	'gather grass'
xük-chik	'peel beans'
xük-nex	'crush beans'
xük-to:k	'sell beans'
xük-wix	'pick beans'
yak-ʔi:tzümü-ʔo:k	'kill pigs'
yak-kama-toy	'burn a cornfield'
yak-kü:k-jot	'dig a hole'
yak-piyu-ye:k	'breed chickens'
yak-puʔtzük-toy	'burn garbage'
yak-tu:ru-ʔo:k	'kill a bull'
yoxe-pa:t	'find work'
yuʔk-tun	'make pots'

The extensive number of compounds listed in (53) shows that NI Type I is a highly productive lexicalization process. The productivity is confirmed by the degree of semantic transparency of these compounds, by the types of nouns which are involved in the compounds, and by the fact that speakers can still create new compounds when referring to activities which have been adopted recently as part of their culture (e.g., te:le-ʔe:p 'watch TV,' rradyo-motow 'listen to the radio,' wi:tamina-jü:n 'ingest vitamins,' etc.). In the majority of cases the meaning of the N+V complex can be inferred from the sum of the meanings of the members of the compound. Take for example ʔam-ʔetz [huapango-dance] which means 'dance huapango,' or yak-tu:ru-ʔo:k [CAUS-bull-die]

which means 'kill bulls' or 'be a butcher.' The fact that loanwords from Spanish also participate in these compounds is an additional indication of the productivity of this process of word formation. See for example the compounds which include Spanish loanwords such as ʔa:nima 'soul,' ʔarrotz 'rice,' kafet 'coffee,' limu:xna 'alms,' me:xa 'table,' mi:xa 'mass,' pa:kax 'cow,' puna:tu 'plate,' tyempo 'time' and tu:ru 'bull'.

Not all the N+V compounds are completely transparent, that is, the meaning of the compounds is not equal to the meaning of the sum of their parts. Consider for example the compounds which include the verb ʔix 'see, watch': ʔunak-ʔix [child-see] 'carry a child,' mi:xa-ʔix [mass-see] 'attend mass,' noki-ʔix [paper-see] 'read paper,' tyempo-ʔix [weather-see] 'forecast the weather'. If the meaning of these compounds could be established compositionally we would expect that the analytic counterpart would be an equivalent paraphrase of the incorporated counterpart or that the analytic counterpart would be systematically related to the incorporated counterpart. However, the analytic counterpart of the incorporated compound noki-ʔix 'read paper' means 'see the paper' without any implication that the paper was actually read. Additional examples where the meaning of the compound does not match with the meaning of the analytic

counterpart are: nü?pin-tun [blood-produce] 'menstruate,' po?a-tun [moon-do] 'menstruate,' puy+wa?tz-wop [cornstalks-hit] 'cut up cornstalks,' tu:t?ik-ya:x? [egg-cry] 'cluck,' tu:tz-wü:t [palm-put together in rows] 'roof with palm leaves,' tük-wü:t [house-put together in rows] 'roof houses,' and tüm-tun [fruit-produce] 'bear fruit'.

Examples such as noki-?ix [paper-see] 'read paper' and nü?pin-tun [blood-produce] 'menstruate' which have taken on non-compositional meanings are cases against the claim that incorporation is purely a syntactic process (Baker 1988a, 1995, 1996). Under this view, the analytic and the incorporated counterparts should be synonymous, since the rule explaining noun incorporation is a meaning preserving transformation. In contrast, from the lexicalist view, the non-compositional meaning of the relevant N+V compound has to be considered similar to other lexicalization processes, such as compounding, where the meaning of the whole does not correspond to the sum of the meaning of the combined items.

2.1.2 Incorporation of the Theme with the Trivalent Verb

mo:yʔ 'give'

The morpheme mo:yʔ 'give' is the only Olutec underived trivalent verb. Unlike clauses with agentive bivalent verbs which can take only two direct core arguments (agent and theme), the verb mo:yʔ 'give' may appear in clauses with three direct core arguments: an agent, a theme, and a recipient. The core argument status of the three semantic participants is confirmed by the following facts: First, none of the nouns referring to any of these three participants is marked by an adposition.

(54) a.

	<u>AGENT</u>		<u>THEME</u>	
tamoyúwak	tanta:ta		tanlugarʔunaʔk	
ta=	mo:yʔ-ú	-w	=ak tan=	ta:ta
B1 (ABS)=give	-INV-COMI=AN		A1 (PSR)=grandson	

tan= lugar-ʔunak
A1 (PSR)=place-DIM
'My grandson gave me my little place (where I live).' {aand/300}

b.

	<u>THEME</u>		<u>RECIPIENT</u>	
moʔa	ʔampanü:jü	yaʔk	naʔawunaʔk	
mo:yʔ-a	ʔan+pa+nü:	yaʔ	=ak naʔaw	-ʔunak
give	-IMPR hard liquor	this=AN	old man-DIM	
'Give hard liquor to this old man!' {compa/46}				

c.

	<u>RECIPIENT</u>		<u>THEME</u>	
tamoyi	ʔimaʔtzu		koʔke	
ta=	mo:yʔ-i	ʔi=	maʔtzu koʔke	
C3 (ERG)=give	-COMD	A3 (PSR)=lover	fish	
'He gave his lover the fish.' {pesca/183}				

Second, the agent is overtly marked on the verb by the ergative proclitic in the direct construction (54c). The recipient is overtly marked on the verb by the absolutive proclitic in the inverse construction (54a). Third, the three participants may be cross-referenced with the third-person plural marker -kùx on the verb. The suffix -kùx cross-references the agent in (55a), the theme in (55b), and the recipient in (55c).

- (55) a. tanmoykùxiy ?ükxi
 tan= mo:y?-kùx-i -y ?ükxi
 A1(ABS)=give -PL3-COMD-INVD.C corn
 'They gave me corn.' {lm3/444}
- b. tamoykùxuk mesko kawa:yu le:ncho
 tan= mo:y?-kùx-u =k metzko kawa:yu
 A1(ERG)=give -PL3-COMI=AN two horse

 le:ncho
 Lencho
 'I gave two horses to Lencho.'
- c. je?ke? ko?paktumpa? ?imoykùxpek tuja?n
 je? =k =je? ko?paktunpa?
 that=AN=CLEFT leader

 ?i= mo:y?-kùx-pe =k tujan
 A3(ERG)=give -PL3-INCI.T=AN weapon
 'That is the leader who gave them weapons.'
 {vg/746}

Fourth, the three participants selected by mo:y? can be relativized using the gapping strategy. Relativization by gapping is only available for direct core arguments. The

gapped argument within the relative clause in (56a) is the agent, in (56b) is the theme, and in (56c) is the recipient.

- (56) a. jem ?itiji ?ipe?ni?k ya?k pro:we tzuktzukawo?k
 [tamoyüwa? chi:nu]
 je?+mü ?i= tij -i ?i= pe?nik ya? =ak
 there A3(ABS)=stay-COMD A3(PSR)=nest this=AN
- pro:we tzuktzuk -?awok ta= mo:y?-ü -w -a?
 poor small_fly-DIM B1(ABS)=give -INV-COMI-NMZR
- chi:nu
 honey
 'The honeycomb of the poor little bees who gave me
 the honey was left over there.' {abeja/135}
- b. ?imü:nükxnüpak chu:chuna?k [tukak wekana?k
 yakmoyu?a?]
 ?i= mü:- nüx-nü -pe =ak chu:chu-nak
 A3(ERG)=ASSOC1-go -already-INCI.T=AN small -DIM
- tuk=ak weka-nak ø= yak- mo:y?-u -? =ja?
 one=AN frog-DIM B3(ABS)=PASS-give -COMI-NMZR=3AN
- 'The little boy is taking along one little frog
 which was given to him.' {id2/228-229}
- c. ?ixi?ixü?k ?i?etze jama:kü [?imo?a:me? ?ampanü:jü]
 ?ix+?i:y?-i =xü=k ?i= ?etz -e
 begin -COMD=EV=AN A3(ABS)=dance-INCD
- jamaj=ak ?i= mo:y?-am -e? ?an+pa+nü:
 that =AN A3(ERG)=give -IRRI-NMZR liquor
- 'The one to whom they are going to give liquor
 began to dance.' {diabl/54-56}

Clauses with the verb mo:y? may incorporate the noun referring to the theme. As an example consider the verb compound in (57) where the incorporated noun nü:nü

'tortilla' follows the first-person ergative proclitic and precedes the verb root.

- (57) tanü:nümoypek ?i:tzümü
 tan= nü:nü- mo:y?-pe =k ?i:tzümü
 A1(ERG)=tortilla-give -INCI.T=AN pig
 'I am feeding the pigs tortillas.' {DICT}

Clauses such as the ones in (54) and (55) have three syntactic arguments, i.e., they are ditransitive. In contrast, clauses of the type illustrated in (57) have only two syntactic arguments, i.e., they are monotransitive. In (57) the first syntactic argument, which corresponds to the semantic agent, is marked with the first-person ergative proclitic on the verb, whereas the second syntactic argument, which corresponds to the semantic recipient, is marked by the animate enclitic =k on the verb and expressed also outside the verb complex by the free-standing noun ?i:tzümü 'pig'. In the inverse pattern illustrated in (58), the recipient is marked with the first-person absolutive proclitic on the verb, whereas the agent is marked with the third-person animate enclitic =ak.

- (58) tayoxemoyüwak
 ta= yoxe-mo:y?-ü -w =ak
 B1(ABS)=work-give -INV-COMI=AN
 'He gave me a job.' {DICT}

The incorporated theme in clauses such as (57) and (58) does not hold any of the characteristics which define a direct core argument of the clause: a) The theme cannot be in cross-reference with the absolutive pronominal proclitic, b) it cannot be in cross-reference with the third-person plural marker on the verb, c) it cannot cross-reference the third-person animate enclitic =(a)k, and d) it cannot be relativized.

The presence of the suffix -pe (incompletive for transitives) in (57) is additional evidence that the compound N+mo:yʔ is a transitive verb. In this respect the compound N+mo:yʔ differs from NI compounds in which the theme incorporates to an agentive monotransitive verb root, such as kay 'eat'. Theme-incorporation with agentive bivalent verbs results in intransitive verb compounds, such as (25) repeated below as (59). The verb ʔa:nimakay 'eat human corpse' takes the incompletive -pa (for intransitives.) The agent is signaled with the absolutive on the verb whereas the incorporated theme is not a syntactic argument of the clause.

- (59) ʔa:nimakaypa jeʔk mu:xi
 ∅= ʔa:nima- kay-pa jeʔ =k mu:xi
 B3 (ABS)=dead person-eat-INCI.I that=AN bird
 'That bird is human-corpse-eating.' {rsch2/306}

Thus, the syntactic valence reduction is a characteristic shared by trivalent and agentive bivalent verbs with theme incorporation. However, the outcome is different. Theme incorporation with agentive bivalent verbs results in intransitive verbs, whereas theme incorporation with the trivalent verb mo:yʔ results in a monotransitive verb.

Additional examples of theme incorporation with the verb root mo:yʔ are given in (60).

- (60) a. minchuʔxmoʔa:maʔ
 min= chuʔx-mo:yʔ-am =jaʔ
 A2(ERG)=god -give -IRRI=3AN
 'You are going to greet him.' {rp3/28}
- b. mixrrasonmoʔaʔnakù
 mix= rrason-mo:yʔ-aʔn =ak
 C2(ERG)=advice-give -IRRD=AN
 'You will give advice to him.' {mil/18}
- c. tanka:ja:pajamoype tamwiti
 tan= ka:=ja:= pajam- mo:yʔ-pe
 A1(ERG)=NEG=MIRAT=strength-give -INCI.T

 tan= wit -i
 A1(ABS)=walk-INCD
 'I can't bear walking anymore.' {mil/149}
- d. ʔikoʔpakmoypek ʔalfre
 ʔi= koʔpak-mo:yʔ-pe =k ʔalfre
 A3(ERG)=head- give -INCI.T=AN Alfredina
 'He is giving advice to Alfredina.' {DICT}

2.1.3 Non-transitive Verbs with Incorporated Themes

Within the corpus I have a few instances of nonagentive monovalent and bivalent verbs in which the theme appears incorporated under Type I NI. Examples of theme incorporation with monovalent nonagentive verbs are given in (61).

- (61) a. nü:ʔawkompetpa
 nü:- ʔaw+kom-pet -pa
 water-swell -DIR:up-INCI.I
 'There is a stream swelling up.' {DICT}
- b. nü:ʔüxje:pa
 nü:- ʔüx+je:p -pa
 water-spill_out-INCI.I
 'There is water spilling out.' {DICT}
- c. nü:pitzümpa
 nü:- pitzüm-pa
 water-exit -INCI.I
 'There is water coming out.' {DICT}
- d. winjo:ynüp
 win-jo:y-nü -pa
 eye-lose-already-INCI.I
 'It is already becoming cloudy.' {DICT}

The incorporation of the only argument selected by the predicate produces impersonal constructions. Similar to the incorporated themes of transitive verbs, the incorporated nouns in (61) are syntactically inert, lacking the four morphological properties which identify direct core arguments (cross-referencing pronominal affixes, plural

marking, animate clitics, availability for relativization). In addition, the incorporated element cannot be modified by nominal specifiers occurring outside the verbal complex.

The second set of intransitive verbs which shows theme incorporation are nonagentive bivalent verbs. Incorporation with this type of verb has not been discussed in the literature on NI. Some examples are given in (62).

- (62) a. ʔampiwü jumej minkujumiktziyiy
 ʔampiw-ü jumej
 chat -IMPR how
- min= kujumik-tzi:yʔ-i -y
 A2 (ABS)=illness-stick -COMD-INVD.C
 'Talk about how you became ill!' {lm/DICT}
- b. tana:xtziyüp seme
 ta= na:x-tzi:yʔ-ü -pa seme
 B1 (ABS)=dirt-stick -INV-INCI.I very
 'The dirt really sticks to me.' {DICT}
- c. takospajo:müp
 ta= kotzpa- jo:m -ü -pa
 B1 (ABS)=sticky stuff-sweat-INV-INCI.I
 'I have the chills.' {DICT}

Nonagentive verbs, such as tzi:yʔ 'to stick on something' and jo:m 'to sweat' in (62), are similar to canonical transitive verbs with respect to the valence of the stem. Both types of verbs are bivalent. However the two classes of verbs differ with respect to the types of arguments selected (see also, CH3, §6). Canonical transitive verbs select for an agent and a theme whereas nonagentive

bivalent verbs select for a theme and an experiencer or location. This difference is reflected morphologically. On the one hand, canonical transitive verbs mark the agent with the ergative proclitic in the direct (39), and the theme with the absolutive proclitic in the inverse (40). Nonagentive bivalent verbs mark the theme with the absolutive proclitic in the direct (63), and the experiencer or locative also with the absolutive proclitic in the inverse (62). The noun referring to the second argument (the theme) of the transitive direct is unmarked with respect to case, as in (39), whereas the noun referring to the second argument (the location) of nonagentive direct is marked by a locative postposition, as in (63).

- (63) tzi:pa seme ni:wi xi:muk ?ina:xmü
 ∅= tzi:y?-pa seme ni:wi xi:mu=k
 B3(ABS)=stick -INCI.I very chili Simon=AN
- ?i= na:x -mü
 A3(PSR)=earth-LOC
 'The chili pepper really takes root on Simon's
 land.' {DICT}

The morphological properties which distinguish the two types of bivalent verbs are sketched in Table 10.

TABLE 10. Distinctive Features of Agentive and Nonagentive Bivalent Verbs

	<u>Arguments</u> Selected	<u>Pronominal</u> Marking on V	<u>Nominal</u> Case
<u>Agentive</u> <u>Verb</u>	Agent & Theme	Erg (DIR) Abs (INV)	No No
<u>Nonagentive</u> <u>Verb</u>	Theme & Exper./Loc.	Abs (DIR) Abs (INV)	No No (INV)/Yes (DIR)

Another difference between canonical transitive verbs and nonagentive bivalent verbs surfaces when the theme is incorporated. Canonical transitive verbs with incorporated themes always follow the direct pattern (64a), whereas nonagentive bivalent verbs with incorporated themes always follow the inverse pattern (62). The presence of the inverse suffix within a bivalent agentive verb which includes an incorporated theme produces an ill-formed construction, as in (64b).

- (64) a. ?i?awo?k na:xkü?juyküxpak
 ?i= ?awok
 A3 (PSR)=son
 ø= na:x-kü?juy-küx-pa =ak
 B3 (ABS)=land-rent -PL3-INCI.I=AN
 'His sons are renting land.' {vg/266}
- b. * ?i?awo?k na:xkü?juyküxüpak
 ?i?awok ø= na:x-kü?juy-küx-ü -pa =ak
 his_{son} B3 (ABS)=land-rent -PL3-INV-INCI.I=AN

Recall that transitive clauses follow the direct pattern when the outranking element in the argument hierarchy (the

agent) coincides with the most salient participant of the clause, as in (39). The inverse pattern occurs when the conditions are inverted, i.e when the low-ranking element in the argument hierarchy, the theme, outranks the agent in saliency, as seen in (40). Clauses where the theme incorporates to a transitive verb always follow the direct pattern since the incorporated theme, being generic, cannot outrank the agent in saliency. The direct pattern with incorporated theme is sketched in (65).

(65)	Direct Pattern: Transitive Verb with Incorporated Theme		
	<u>Argument Hierarchy:</u>	Agent	> Theme
	<u>Saliency Hierarchy:</u>	High-ranking Participant	> Low-ranking Participant

Clauses with nonagentive bivalent verbs follow the direct pattern when the theme, which outranks the location or experiencer in the argument hierarchy, coincides with the most salient participant of the clause, as in (63). Under the direct pattern sketched in (66) the theme cannot incorporate.

(66)	Direct Pattern: Nonagentive Verb		
	<u>Argument Hierarchy:</u>	Theme	> Experiencer/Location
	<u>Saliency Hierarchy:</u>	High-ranking Participant	> Low-ranking Participant

On the other hand, nonagentive bivalent verbs follow the inverse pattern when the conditions are reversed, i.e., when the experiencer or location coincides with the most salient participant of the clause. This pattern is sketched in (67).

(67)

<u>Inverse Pattern: Nonagentive Verb</u>			
<u>Argument</u>	Theme	>	Experiencer/Location
<u>Hierarchy:</u>			
<u>Saliency</u>	High-ranking	>	Low-ranking
<u>Hierarchy:</u>	Participant		Participant

The nonagentive verb ʔom 'crave' follows the inverse pattern in both (68a,b). In (68a) the theme appears as a free-standing noun, whereas in (68b) it appears incorporated. Clauses with nonagentive bivalent verbs with an incorporated theme always follow the inverse pattern since the theme, being generic, cannot outrank the location/experiencer in saliency. Clauses with an incorporated theme lacking an inverse marker result in ill-formed structures, as in (68c).

- (68) a. taʔomüw kayan
 ta= ʔom -ü -w kayan
 B1 (ABS)=crave-INV-COMI food
 'I am craving food.' {DICT}
- b. takayanʔomüw
 ta= kayan-ʔom -ü -w
 B1 (ABS)=food-crave-INV-COMI
 'I am craving food.' {DICT}

- c. * takayan?omu
 ta= kayan-?om -u
 B1 (ABS)=food-crave-COMI
 (Intended reading: 'I am craving food.')

In sum, whereas the cases of theme incorporation with agentive verbs fit within the functional definition of the antipassive voice, the incorporated structures such as (62a-c) and (68b) cannot be interpreted in the same way since the only syntactic argument of the clause is not an agent but an experiencer or location. Two very important features of the inverse alternation in Olutec are evident when examining the morphological marking of this type of construction. First, the inverse pattern is attested not only in transitive structures but also in structures with only one syntactic argument, and second, that a clause follows the inverse pattern independently of the syntactic realization of the theme. That is, for the purpose of coding the clause as inverse, the theme of a nonagentive bivalent verb can be a syntactic argument, as in (68a), or a semantic argument which is syntactically inert, as when it is incorporated in (68b). Incorporated themes cannot be cross-referenced by the plural marker, pronominal proclitic or animate enclitic. Nor are they available for relativization. Thus, it is clear that all the semantic arguments selected by the verb, independently of their syntactic realization within a

clause, are ranked for the purpose of marking the construction as direct or inverse. This will be discussed further in the next section dealing with agent incorporation (see also CH3, §6.2.3).

2.1.4 Transitive Verbs with Incorporated Agents

Up to this point I have discussed Type I NI with three different classes of verbs in which a theme was the target of incorporation. This pattern is attested in many languages and has been amply documented in the literature. This section deals with Type I NI verbs where the target of incorporation is an agent of a transitive verb. The category of agent used here refers to the entity which is conceptualized as the initiator of the action or event, i.e., the first segment of the causal sequence (DeLancey 1991). Van Valin and Wilkins (1996) use the term "effector" to refer to basically the same semantic participant. The category of "effector" in Van Valin and Wilkins' discussion subsumes three more specific roles: agent (animate instigator), force (motive instigator) and instrument (nonmotive instigator). From a typological point of view, agent incorporation is an uncommon pattern.⁵ Evans

(1996:79), who is aware of some exceptions which he himself provides in his work, claims:

[...] the range of grammatical relations between generic incorporated nominal and predicate is remarkably homogeneous across a wide variety of languages [...] Transitive objects and intransitive subjects are the usual candidates; additionally, instrument and locative complements may incorporate [...] Transitive subjects and benefactives or indirect objects never incorporate.

Baker's theory of noun incorporation claims that this pattern is not attested in natural languages:

The core fact about the distribution of NI is that in ordinary transitive clauses, the direct object may be incorporated, but the subject may not be. (Baker 1988a:81)

A noun can be incorporated into another category in the system of a polysynthetic language only if a noun phrase headed by that noun would be the sister of the category in the phrase structure system of an isolated language. (Baker 1993:14)⁶

This syntactic account of NI [the Move-Alpha account] has the further advantage of accounting for one of the most important properties of noun incorporation: the fact that objects incorporate but subjects do not. (Baker 1995:7)

And more recently:

[...] the head of the subject still fails to be in construction with a verbal position into which it could plausibly incorporate. The head of the direct object is thus left as the only X^o position that is in the right structural configuration with a lexical verb to undergo NI. (Baker 1996:306)

The following are examples of agent incorporation in Olutec:

- (69) a. tatüpxijepüw
 ta= tüpxi-jep -ü -w
 B1(ABS)=rope- scrape-INV-COM
 'The rope scraped me.' {ch/PA}
- b. ?ixpa?me:k ?ika?ja:mupa:tiy xi:mu
 ?ixpa?+mej=k ?i= ka:=ja:mu-pa:t-i -y
 luckily =AN B3(ABS)=NEG=wind- find-COMD-INV.D.C
 xi:mu
 Simon
 'Luckily the wind didn't reach Simon.' {DICT}
- c. taku?kuwü:nüp tankü?jem
 ta= ku?ku-wü:n-ü -pa tan= kü? -jem
 B1(ABS)=cramp-pull-INV-INC.I A1(PSR)=hand-LOC
 'I am getting cramps in my hand.' (Lit. 'Cramps
 are pulling me from my hand.') {C11a/84/942}
- d. tapixtökkayüw ?uxüwi
 ta= pixtök-kay-ü -w ?uxüwi
 B1(ABS)=flea -eat-INV-COMI night
 'The fleas ate me last night.'
- e. mipixtökju?tanüp porke pitu:kak nike:xtiyüp
 mi= pixtök-ju?t -anüpa porke
 B2(ABS)=flea- tickle-INV+IRRI because
 pitu:ka=k ø= ni -ke:x+ti:y?-ü -pa
 Pituca =AN B3(ABS)=RFLX-delouse -INV-INCI.I
 'The fleas are going to walk on you because Pituca
 (the dog) is delousing herself.' {DICT}

2.1.4.1 The Semantics of the Verb Root in Agent+V Compounds

The sentences in (69) are structurally similar to the sentences in (62). These sentences share the following three

features: the verb complexes include an incorporated noun, there is only one syntactic argument involved which is marked by the absolutive proclitic in the verb, and the constructions follow the inverse pattern. However, the N+V compounds in (69) differ from the ones in (62) with respect to the classes of verb roots involved and also with respect to the semantic arguments which are the target of incorporation. I already discussed three distinctive features of the sentences in (62): the verb roots in these compounds are intransitive, the incorporated nouns are semantic themes, and the only syntactic argument of the clause is the argument expressing the location/experiencer. In what follows I will show, first, that the verb roots in (69) are canonical transitive verbs; second, that the incorporated nouns tüpxi, ja:mu, ku?ku and pixtük are agents (effectors) and not instruments or themes; and third that the semantic theme is the only syntactic argument of the clause.

The verb roots jep 'scrape,' pa:t 'find,' wü:n 'pull,' kay 'eat' and ju?t 'tickle' are agentive bivalent verbs, in other words, they are canonical transitive verbs which select for an agent (effector) and a theme. Four morphosyntactic facts corroborate the transitivity of these

verb roots. First, only canonical transitive verbs mark the first selected argument with the ergative in the direct pattern. The ergative represents the agent of the verbs jep (70a), pa:t (70b), wü:n (70c), kay (70d) and ju?t (70e) showing that these verb roots are transitive. Second, the incompletive marker -pe for independent clauses only occurs with transitive verbs. This morpheme may be suffixed to all five verbs. Two examples with the verbs wü:n and ju?t are given in (70c) and (70e).

- (70) a pu?ü tajepe
 pu? ta= jep -e
 sand C3(ERG)=scrape-INCD
 ‘He is scratching around in the sand.’ {lm2/254}
- b. ?ü:s tanpa:tu tanmajawü
 ?ü:tz tan= pa:t-u tan= majaw
 I A1(ERG)=find-COMI A1(PSR)=woman
 ‘I found my wife.’ {deaa/66}
- c. tamwü:mpe tu?k tüpxi
 tan= wü:n-pe tuk tüpxi
 A1(ERG)=pull-INC.T one rope
 ‘I am pulling a rope.’ {DICT}
- d. na?kxej mixkaye:t tu?k piyuna?k
 na?kxej mix= kay-e -:t tuk piyu -nak
 when C2(ERG)=eat-INCD-PL.SAP one chicken-DIM
 ‘That is when you all eat a chicken.’ {deaa/153}
- e. le:ncho ?iju?tpek to:nya ?ipu?pu
 le:ncho ?i= ju?t -pe =k to:nya
 Lencho A3(ERG)=tickle-INCI.T=AN Toña

 ?i= pu?pu
 A3(PSR)=belly
 ‘Lencho is tickling Toña’s belly.’

Third, only transitive verb roots can occur in reflexive and reciprocal constructions. The five verb roots under consideration can co-occur with the reflexive/reciprocal prefix ni-. An example of a reflexive construction with the root jep is (71a). A reciprocal construction with the root pa:t is illustrated in (71b).

- (71) a. tanijepüw kuyjem
 ta= ni- jep -ü -w kuy -jem
 B1(ABS)-RFLX-scratch-INV-COMI stick-LOC
 'I scratched myself with the stick.'
- b. ?inipa:tküxiya?
 ?i= ni- pa:t-küx-i -y =ja?
 A3(ABS)=RECP-find-PL3-COMD-INVD.C=3AN
 'They found each other.' {rschl/89}

And fourth, only canonical transitive verb roots can be passivized. Passive sentences with the verbs wü:n, pa:t and kay are given in (72).

- (72) a. tanmotowu ?iyakwü:ni puxa?n
 tan= motow-u ?i= yak- wü:n-i puxan
 A1(ERG)=hear -COMI A3(ABS)=PASS-pull-INCD bell
 'I heard that the bells were rung.' (Lit. 'I heard
 that the bells were pulled.' {aandb/243-4})
- b. wepakü ?iyakpa:ti ?ina:xmü
 wew+pi=ak ?i= yak- pa:t-i
 there =AN A3(ABS)=PASS-find-COMD
- ?i= na:x -mü
 A3(PSR)=earth-LOC
 'He was found over there, in his land.' {olul/16}

- c. ʔika:wini:pek tayakaypa
 ʔi= ka:=wini:yʔ-pe =k ta
 A3 (ERG)=NEG=know -INCI.T=AN COND
- ∅= yak- kay-pa
 B3 (ABS)=PASS-eat-INCI.I
 'He doesn't know if it is edible.' {olu2/11}

Nonagentive bivalent verb roots, such as tzi:yʔ 'stick' and jo:m 'sweat' in (62), do not hold any of these four morphosyntactic features. This set of verbs behaves as plain intransitive roots in the direct construction. A direct construction with the nonagentive verb tzi:yʔ 'stick' was given in (63). Note that the absolutive proclitic in (63) represents the only core argument of the clause. The incompletive in (63) is marked with the suffix -pa, which occurs only with intransitives, and not with the suffix -pe, which occurs only with transitives.⁷ Ill-formed structures result when the reflexive/reciprocal ni-, (73b), or the passive yak-, (73c), is added to nonagentive verb roots.

- (73) a. tatzi:yüpak ʔu:ji
 ta= tzi:yʔ-ü -pa =k ʔu:ji
 B1 (ABS)=stick -INV-INC.I=AN tick
 'The ticks are sticking on me.' {c/DICT}
- b. * nitzi:yüpak ʔu:ji
 ∅= ni- tzi:yʔ-ü -pa =k ʔu:ji
 B3 (ABS)=RFLX-stick -INV-INC.I=AN tick
- c. * yaktzi:pak ʔu:ji
 ∅= yak- tzi:yʔ-pa =k ʔu:ji
 B3 (ABS)=PASS-stick -INC.I=AN tick

This comparison shows clearly that roots such as jep 'scrape,' pa:t 'find,' wü:n 'pull,' kay 'eat' and ju?t 'tickle' which form compounds of the type illustrated in (69), are canonical transitive verbs. In contrast, the bivalent roots such as tzi:y? 'stick' and jo:m 'sweat,' which form compounds of the type illustrated in (62), are not transitive verbs.

2.1.4.2 Theme+V vs. Agent+V Compounds

The semantic role of the incorporated noun is the second issue to be discussed. Different types of N+V compounds can be distinguished in Olutec based on morphological grounds. The inflectional possibilities of each type of compound varies according to the particular argument which is the target of incorporation. The three different targets of incorporation within transitive verbs are: agent, theme, or oblique (for example instrument). I will contrast the three types of constructions to demonstrate that the incorporated nouns in (69) are agents.

The same transitive verb roots forming N+V compounds in (69) appear forming N+V compounds in (74). The targets of incorporation in (74) are semantic themes. The verb stems

N+V in these examples are syntactically intransitive. The only syntactic argument of the clause (the semantic agent) is signaled by the absolutive proclitic on the verb. Theme-incorporating structures with transitive verb roots follow the direct pattern. The parameters which trigger this pattern, sketched in (65), were already explained (see §2.1.3).

- (74) a. tapuxanwü:mpa
 ta= puxan-wü:n-pa
 B1 (ABS)=bell- pull-INC.I
 'I am ringing the bells.' {DICT}
- b. jemakü ?iyoxepa:ti
 je?+mü=ak ?i= yoxe-pa:t-i
 there =AN A3 (ABS)=work-find-INCD
 'He found a job over there.' {rp3/903}
- c. tanawijepa
 ta= nawi- jep -pa
 B1 (ABS)=agave-scrape-INC.I
 'I am scraping agave fiber.' {DICT}
- d. ?a:nimakaypak mu:xi
 ø= ?a:nima- kay-pa =k mu:xi
 B3 (ABS)=dead person-eat-INCI.I=AN bird
 'The bird is human-corpse-eating.' {rsch2/346}

The verb compounds in (69) share three features with the verb compounds in (74). The complex verbs in both (69) and (74) are syntactically intransitive, have an incorporated noun preceding the verb root, and occur with the absolutive marker referring to the only syntactic argument of the

clause. However, the arguments selected by the verb root are expressed by different morphemes on the verb. The incorporated noun represents the theme and the absolutive on the verb represents the agent within the N+V compounds in (74). In contrast, the incorporated noun represents the agent and the absolutive on the verb represents the theme within N+V compounds in (69).

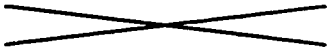
The assignment of a particular semantic role (agent, theme) to a particular morphological slot (incorporated noun, absolutive proclitic) depends on the direct or inverse pattern followed by the clause. NI structures in (74) follow the direct pattern, which is unmarked. In contrast, NI structures in (69) follow the inverse pattern, which is overtly marked by the inverse suffix -ü (69a, c) or -y (69b) on the verb. The interplay of the inverse/direct alternation with the morphological slots available for conveying the two participants of an agentive bivalent verb in noun incorporated structures is summarized in (75).

(75) NI and Role Assignment with Agentive Verbs

	<u>ABSOLUTIVE</u>	<u>INCORPORATED NOUN</u>
<u>DIRECT</u>	Agent	Theme
<u>INVERSE</u>	Theme	Agent

The conditions which trigger the inverse pattern in (69) are analogous to the conditions which trigger the inverse pattern in non-incorporated structures with transitive verbs. The verb of a clause carries an inverse suffix when there is a mismatch between the highest ranking element on the argument hierarchy and the highest ranking element on the saliency hierarchy. That is, the inverse pattern occurs when the most salient argument of the clause (in terms of person or discourse prominence) is represented by the theme, whereas the least salient argument of the clause is represented by the agent. This pattern is sketched in (76).

(76)	<u>Inverse Pattern with Transitive Verb Roots</u>		
	<u>Argument</u>	Agent	> Theme
	<u>Hierarchy:</u>		
	<u>Saliency</u>	High-ranking	> Low-ranking
	<u>Hierarchy:</u>	Participant	Participant



The inverse pattern with non-incorporated transitive verbs is illustrated in (76). Both (77a,b) are obligatorily coded as inverse because the first-person, the most salient participant on the saliency hierarchy operating in Olutec (1>2>3(Proximate>Obviative)), corresponds to the theme, whereas the low-ranking third-person corresponds to the agent. In a similar way, the sentence in (77c), which

includes two third-person core arguments, follows an inverse pattern because the most salient of the two participants involved in this particular fragment of discourse (the proximate) corresponds to the theme (the frog), whereas the least salient participant (the obviative) corresponds to the agent (its owner). None of the free-standing nouns referring to the agent in (77a-c) is cross-referenced by the absolutive proclitic on the verb. The absolutive on the verb represents the theme.

- (77) a. tawü:ntiyiya?
 tan= wü:n-ti:y?-i -y =ja?
 A1 (ABS)=pull-ITER -COMD-INVD.C=3AN
 'He was tugging me a lot.' {burd/140}
- b. ma:nkujem tanpa:tiyi:tü?s je? pro:we jayma?lu:pe
 ma:nku-jem tan= pa:t-i -y -i:t -ütz
 mango -LOC A1 (ABS)=find-COMD-INVD.C-PL.SAP-EXCL

 je? pro:we jayma?- lu:pe
 that poor deceased-Lupe
 'The deceased Lupe found us at the mango tree.'
 {id3/145}
- c. yamü je?k weka ya?k pa:tüwak ?ite:ku
 ya?+mü je? =k weka ya? =ak
 here that=AN frog this=AN

 ø= pa:t-ü -w =ak ?i= te:ku
 B3 (ABS)=find-INV-COMI=AN A3 (PSR)=owner
 '[The frog went out that night, it went out and]
 here its owner found the little frog.' {rschl/551}

The same conditions sketched in (76), which trigger the inverse pattern in the non-incorporating examples in (77) also trigger the inverse pattern in the N+V compounds in

(69). Therefore, the incorporated nouns tüpxi 'rope' (69a), ja:mu 'wind' (69b), ku?ku 'cramp' (69c), and pixtük (69d-e) code agents which are outranked in saliency by themes.

2.1.4.3 Agents vs. Instruments

The fact that the incorporated nouns tüpxi 'rope' (69a), ja:mu 'wind' (69b), ku?ku 'cramp' (69c) are inanimate does not make them good candidates for the category of "agent" such as it is normally understood, i.e., a volitional and animate entity which controls the end result of an event (Fillmore 1968b, Comrie 1989). For this reason it is important to justify the claim that the inanimate incorporated nouns in (69a-c) are agents and not instruments. Three morphosyntactic facts support this analysis.

In Olutec, instruments are marked as oblique arguments when they occur as free-standing nouns. The preposition mü:t 'with' marks the nouns noki in (78a) and tuku in (78b) as instruments.

- (78) a. mü:tak taʔawxuyiʔ mü:t noki jeʔta:najti
 mü:t=ak ta= ʔawxuyiʔ-i mü:t noki jeʔ
 and =AN C3(ERG)=mend -COMD with paper that
 ta:najti
 basket
 'And he mended the basket with paper.' {viaj2/21}
- b. taxʔawtzoʔe mü:t tuku
 tax= ʔawtzoʔ-e mü:t tuku
 C1(ERG)=close -INCD with cloth
 'He is closing it with a rag.' {hijomez/16}

Some incorporating constructions of the type illustrated in (69) have analytic counterparts, i.e., clauses in which the same incorporated noun appears as a free-standing noun. Two examples are given in (79) and (80). Note that the verb follows the inverse pattern in both the incorporated and the analytic constructions. If the incorporated nouns in (69), (79a) and (80a), were semantic instruments one would expect to have the free-standing nouns of the analytic counterparts marked by the instrumental preposition mü:t. The free-standing nouns nüʔpin 'blood' in (79b) and ʔapit 'thorn' in (80b) are not flagged by mü:t. This is the first piece of evidence which confirms that the inanimate nouns in (69), (79a), and (80a) are construed as first causes or agents and not as semantic instruments.

- (79) a. tanüʔpinkoyüw
 ta= nüʔpin-koy -ü -w
 B1(ABS)=blood- stain-INV-COMI
 'The blood stained me.' {DICT}

- b. nü?pin takoyüw
nü?pin ta= koy -ü -w
 blood B1 (ABS)=stain-INV-COMI
 'The blood stained me.' {DICT}
- (80) a. ta?apitkupüw
 ta= ?apit-kup -ü -w
 B1 (ABS)=thorn-prick-INV-COMI
 'The thorn pricked me.' {DICT}
- b. ?api?t takupüw
 ?apit ta= kup -ü -w
 thorn B1 (ABS)=prick-INV-COMI
 'The thorn pricked me.' {DICT}

The second piece of evidence which confirms that the incorporated nouns in (69) are agents is the fact that the same lexical items can be cross-referenced by the ergative proclitic in clauses following the direct pattern. Recall that in the direct pattern, which occurs when the agent outranks the theme on saliency, the agent is cross-referenced by the ergative proclitic on the verb. Transitive clauses following the direct pattern are given in (81a-c). Note that both agent and theme in (81a-c) are inanimate nouns. The agent nouns which are cross-referenced by ergative proclitics are tüpxi 'rope' in (81a), ja:mu 'wind' in (81b), and ku?ku 'cramp' in (81c). These nouns are construed as the most salient participants within these clauses.

- (81) a. tüpxi ?ijunu kawa:yu ?ixi:na
tüpxi ?i= jun -u kawa:yu ?i= xi:na
 rope A3(ERG)=scrape-COMI horse A3(PSR)=saddle
 'The rope scraped the horse's saddle.'
- b. ja:mu tyakpoyi ya?aj tu:jü
ja:mu ta= yak- po:y?-i ya?aj tu:j
 wind C3(ERG)=CAUS-flee -COMD this rain
 'The wind made the rain go away.' (ch/rs1/15)
- c. ?ito?kxkotpe tankü?xta jaj ta?nük ku?ku
?i= to?kx+kot-pe tan= kü?x-ta
 A3(ERG)=bend -INCI.T A1(PSR)=foot-BPART
 ja? ta?nük-ku?ku
 DEF big- cramp
 'The cramp is bending my foot.' (viaj2/80)

Instrument arguments, on the other hand, cannot be cross-referenced by the ergative proclitic on the verb. Semantic instruments may be expressed in Olutec either as obliques or as core arguments. Examples of instruments as obliques were given above in (78). An instrument is a core argument of clauses in which the instrumental applicative toj- is prefixed to a verb root. Intransitive roots plus the applicative become transitive verb stems, and transitive root plus the applicative become ditransitive verb stems. In none of these cases is the added semantic instrument registered in the verb by the ergative proclitic. For instance, the intransitive verb root pet 'go up, ascend' prefixed by toj- forms the transitive verb stem toj-pet 'to climb something, to use something to go up,' as in (82).

Note that the ergative proclitic tan= refers to the first person agent. The third-person instrument functioning as core argument is not flagged by mü:t.

- (82) tantojpetu naʔkxikoj ma:nkukuyü
 tan= toj- pet -u naʔkxi=koj ma:nku-kuy
 A1(ERG)=INSTR-ascend-COMI when =just mango -tree
 'Before I used to climb the mango trees.'
 {viaj2/35}

The transitive verb juy 'buy' prefixed by toj- forms the ditransitive verb stem toj-juy 'buy something with something'. In (83b) the third-person ergative ta= preceding the verb toj-juy signals the agent (the buyer), the theme is overtly expressed by the noun tzoy 'medicine,' whereas the instrument (small change), which is part of the argument structure of the derived verb, is anaphorically recovered.

- (83) a. minuxüʔk wakxekaj tatu:teʔ tatojuyanxüʔk tzoyü
 ∅= mi:nʔ-u =xü=k wakxekaj
 B3(ABS)=come -COMI=EV=AN small_change

 ta= tu:tʔ-aʔ -i
 C3(ERG)=put -APPL1-INCD

 b. ta= toj- juy-aʔn =xü=k tzoy
 C3(ERG)=INSTR-buy-IRR=EV=AN medicine
 (a) 'He_i came to give him_j small change (b) so
 that he_j would be able to buy the medicine with
 it.' {C23/86/687}

Examples (82) and (83) clearly show that instruments functioning as core arguments of a clause are not cross-referenced by the ergative proclitic on the verb. Instead,

added instruments are treated as the only object in monotransitive clauses, and as "secondary objects" (Dryer 1986) in ditransitive clauses. That is, ditransitive constructions which include a theme and an added instrument in their argument structure choose the theme as the argument which is overtly marked by the absolutive proclitic within the following constructions: inverse (84a), passive (84b), and reflexive (84c).

- (84) a. tantojʔe:pmiʔniji:t
 tan= toj- ʔe:p-mi:nʔ -i -j -i:t
 A1(ABS)=INSTR-see -DIR:hither-INCD-INVD.I-PL.SAP
 'He was looking at us (with his glasses).'
- {rs2/11}
- b. tayaktojni:xiʔkxu nü:jü
 ta= yak -toj- ni:+xiʔkx-u nü:
 B1(ABS)=PASS-INSTR-sprinkle -COMI water
 'I was sprinkled with water.' {ch/rschl/373}
- c. tantojniyu:kij tankutun
 tan= toj- ni- yu:k-i -j
 A1(ABS)=INSTR-RFLX-hide-INCD-INVD.I
- tan= kutun
 A1(PSR)=shirt
 'I am covering myself with my shirt.'
- {ch/C7/74/52}

Thus, added instruments are not cross-referenced either by the ergative or the absolutive proclitic on derived ditransitive verbs.⁸ However, the core-argument status of added instruments is confirmed by their ability to appear as unflagged nouns (without the preposition mü:t) and their

availability for being relativized using the gapping strategy. An example of a relativized instrument is given in (85).

- (85) potu tüpxi [tantojtzumwa? ?i:tzü:müwo?k]
 ∅= pot -u tüpxi
 B3(ABS)-break-COMI rope
- tan= toj- tzum-w -a? ?i:tzü:mü-wok
 A1(ERG)=INSTR-tie -COMI-NMZR pig -DIM
 'The rope which I used to tie the little pigs
 broke.'

In sum, the semantic role of the incorporated noun of an N+V compound in (69) can be determined when comparing the morphosyntactic properties of the same noun in its analytic counterpart. We have shown that the free-standing nouns of the analytic counterpart of N+V compounds in (69) cannot be interpreted as instruments. Instead, these nouns are agents.

2.1.4.4 Agent+V vs. Instrument+V Compounds.

The third piece of evidence which confirms that the incorporated nouns in (69), (79a), and (80a) are agents and not instruments comes from the examination of N+V compounds where true instruments are the target of incorporation. These types of compound can be formed with intransitive (86a-d) and transitive (87a-d) verbs.

- (86) a. tatu:xo:kam
 ta= tu:j-xo:k -am
 B1 (ABS)=rain-be wet-IRRI
 'I am going to get wet with the rain.' {DICT}
- b. jokowi:xpa jamaj kaya?n
 ø= joko- wi:x -pa jamaj kayan
 B3 (ABS)-smoke-smoke-INCI.I that food
 'The food is being smoked with smoke.' {DICT}
- c. tapu?jikpa
 ta= pu?- jik -pa
 B1 (ABS)=sand-get dirty-INCI.I
 'I am getting dirty with sand.' {DICT}
- d. ?onatoypa ?ona?akü
 ø= ?ona-toy -pa ?ona-?ak
 B3 (ABS)=lard-heat up-INCI.I lard-skin
 'The pork skins are being fried.' {DICT}
- (87) a. tanwimpaktzümpe küpi
 tan= winpak- tzüm -pe küpi
 A1 (ERG)=headband-carry on the back-INCI.T wood
 'I am carrying wood with a headband.' {DICT}
- b. taxyak?onatoye je? xükü
 tax= yak- ?ona-toy -e je? xük
 C1 (ERG)=CAUS-lard-heat up-INCD that beans
 'I am frying beans.' (Lit. 'I am burning beans with lard.' {rspf2/560})
- c. tantojkuymoypek ?i:tzü:mü
 tan= toj- kuy- mo:y?-pe =k ?i:tzü:mü
 A1 (ERG)=INSTR-stick-give -INCI.T=AN pig
 'I am hitting the pig with a stick.' (Lit. 'I am giving (hits) to the pig with a stick.') {DICT}
- d. tanja:chapu?pe ya?aj küpi
 tan= ja:cha-pu? -pe ya?aj küpi
 A1 (ERG)=ax-split-INCI.T this wood
 'I am splitting the wood with the ax.' {DICT}
- e. ni?ixtük?e:püpak
 ø= ni- ?ixtük-?e:p-ü -pa =k
 B3 (ABS)=RFLX-mirror-see -INV-INC.I=AN
 'He is looking at himself with the mirror.' {DICT}

The incorporating verbs in (86) and (87) differ in important aspects from the incorporating verbs in (69), (79a), and (80a). The first thing to note is that incorporated instruments are participants which are not selected by the verb roots with which they co-occur. That is, instruments are participants which are not required by the argument structure of verbs such as xo:k 'to be wet' in (86a) and tzüm 'to carry on the back' in (87a). The following pair of examples show that the lack of a semantic instrument within the clause does not change the valence of the verb root. The verb xo:k in (88a) stays intransitive and the verb tzüm in (88b) stays transitive.

- (88) a. nüxü pükta tuku porke xo:kno?om
 nüx-ü pük -ta tuku porke
 go -IMPR grab-NF cloth because
- ∅= xo:k -nü -am
 B3(ABS)=be wet-already-IRRI
 'Go to bring the clothes because they are going to get wet!' {rspf2/417}
- b. je? chu:chuna?k ?itzümpek ?ixu?ni
 je? chu:chu-nak ?i= tzüm -pe =k
 that small -DIM A3(ERG)=carry_on_back-INCI.T=AN
- ?i= xu?ni
 A3(PSR)=dog
 'The kid is carrying his dog on his back.'
 {rschl/667}

In contrast, when the agent of a transitive verb is omitted, the passive marker yak- is prefixed to the root. Thus, if

the noun ku?ku 'cramp' in (89a) were an instrument one would predict that its absence would not affect the verb valency. However, the passive morphology in (89b) clearly shows that the absence of the participant expressing the role of the incorporated noun in (89a) does change the valence of the verb. The stem ku?ku-wü:n is bivalent, whereas the stem yak-wü:n is monovalent. This supports the claim that ku?ku is a true agent and not an instrument.

- (89) a. taku?kuwü:nüp tankü?jem
 ta= ku?ku-wü:n-ü -pa tan= kü? -jem
 B1 (ABS)=cramp-pull-INV-INC.I A1 (PSR)=hand-LOC
 'I am getting cramps in my hand.' (Lit. 'Cramps are pulling me from my hand.') {C11a/84/942}
- b. tayakwü:npa
 ta= yak-wü:n-pa
 A1 (ABS)=PASS-pull-INCI.I
 'I am being pulled.'

Agent incorporation differs from instrument incorporation in another respect. Agent incorporation, as in (89a), obligatorily follows the inverse pattern whereas instrument incorporation, as in (87a-d), may follow either the direct or the inverse pattern. Agent incorporation requires the inverse pattern because the incorporated agent, which is the highest ranked element in the argument hierarchy, is outranked by the non-incorporated theme in the saliency hierarchy. On the other hand, the saliency status

of the incorporated instrument is not considered for the purpose of coding a clause as direct or inverse. The instrument-incorporated-verbs in (87) may follow either the direct or the inverse pattern. As normal, this is determined on the basis of which of the two non-incorporated arguments (agent, theme) is the most salient participant of the clause. The clauses (87a-d) follow the direct pattern since the agent outranks the theme on saliency. The clause in (90) follows the inverse pattern since the theme outranks the agent in saliency.⁹

- (90) tatojkuymoyüpak xi:mu
 tan= toj- kuy- mo:yʔ-ü -w =k xi:mu
 A1(ERG)=INSTR-stick-give -INV-COMI=AN Simon
 'Simon hit me with a stick.' (Lit. 'Simon gave me
 (hits) with a stick.')

The contrast between the morphosyntax of the analytic counterparts of the N(instrument)+V compounds in (86)-(87) with the analytic counterpart of N(agent)+V compounds in (79)-(80) is the second issue to be discussed. In the analytic counterparts of the N(instrument)+V compounds, the noun referring to the instrument is flagged by the preposition mü:t 'with'. Compare the intransitive compound (86a) with its analytic counterpart (91a), and the

transitive compound (87a) with its analytic counterpart (91b).

- (91) a. taxo:kam mü:t tu:jü
 ta= xo:k -am mü:t tu:j
 B1 (ABS)=be_wet-IRRI with rain
 'I am going to get wet with the rain.' {DICT}
- b. tu?k kuxta?t tantzümpe mü:t wimpa?k
 tuk kuxtat tan= tzüm -pe
 one sack A1 (ERG)=carry_on_the_back-INCI.T
- mü:t winpak
 with headband
 'I am carrying one sack with a headband.' {DICT}

In contrast, the noun referring to the incorporated agent appears without the preposition mü:t in its analytic counterpart, as in (79b) and (80b). This confirms that the incorporated nouns in (69), (79a) and (80a) are true agents.

2.1.4.5 The Syntactic Status of the Incorporated Noun in Agent+V Compounds.

Within Agent+V compounds the theme is the only participant which holds the four syntactic features which define a core argument of the clause. Theme core arguments are overtly marked by the pronominal proclitic on the verb (92a, b), can trigger plural marking (92b), can cross-

reference the animate enclitic =(a)k (92b), and can be relativized (92c).

- (92) a. taʔa:watjuʔtúp tankoʔpakjem
 ta= ʔawat-juʔt -ú -pa tan= koʔpak-jem
 B1(ABS)=louse-tickle-INV-INC.I A1(PSR)=head -LOC
 'The lice are tickling me on my head.' {ch/DICT}
- b. seme ʔipoʔtzako:kaʔta:küxiyak piyunaʔk
 seme ʔi= poʔtza-ko:kaʔta:k-küx-i -y =ak
 many B3(ABS)=wall- crush -PL3-COMD-INV.D.C=AN
 piyu -nak
 chicken-DIM
 'The wall crushed many little chickens.'
 {ch/ELI/5}
- c. jeʔk yoʔjwa [moʔtzojü:nüwaʔ] ʔixüwʔatuk si:ri
 jeʔ =k yoʔjwa ø= moʔtzo-jü:n -ú -w -aʔ
 that=AN man B3(ABS)=mud -swallow-INV-COMI-NMZR
 ʔi= xüw- ʔat -u =k si:ri
 A3(ERG)=name-CONSIDER-COMI=AN Cirilo
 'Cirilo was the name of the man who was stuck in
 the mud.' (Lit. 'Cirilo was the name of the man
 whom the mud swallowed.')

In contrast, the incorporated agent does not hold any of these four properties of core-argumenthood.

Incorporated agents differ from free-standing agents (which are syntactic arguments) in their ability to be modified by words that stand outside the verbal complex. A determiner and a relative clause modify the free-standing noun referring to the agent in (93a). In contrast, the ill-formed structure (93c) shows that the same modifiers cannot

be left stranded when the head of the phrase is part of the verb compound.

- (93) a. takupūw yaʔaj ʔapit yūkukaj
 ta= kup -ū -w yaʔaj ʔapit yūkuk-ʔaj
 B1(ABS)=prick-INV-COMI this thorn black-NMZR
 'This black thorn pricked me.' {ELI/5/1}
- b. taʔapitkupūw
 ta= ʔapit-kup -ū -w
 B1(ABS)=thorn-prick-INV-COMI
 'I got thorn-pricked.' {DICT}
- c. * taʔapitkupūw yaʔaj yūkukaj
 ta= ʔapit-kup -ū -w yaʔaj yūkuk-ʔaj
 B1(ABS)=thorn-prick-INV-COMI this black-NMZR
 (Intended reading: 'This black thorn pricked me.')

In sum, clauses with Agent+V compounds are syntactically intransitive, i.e., the theme is the only syntactic argument of a clause. Therefore, since inverse morphology is attested with Agent+V compounds one can deduce that the inverse/direct alternation is sensitive to the ranking of the selected semantic arguments on the saliency hierarchy independently of their syntactic realization within a clause. The same conclusion was obtained when discussing theme incorporating structures with nonagentive bivalent verbs. Another set of verbs which confirms this analysis are nonagentive bivalent verbs with conflated theme (see CH 3, §6.2.3).

2.1.4.6 Productivity of Agent+V Compounds

From a cross-linguistic point of view, agent incorporation is the least common among the different types of noun incorporation. In my Olutec corpus too, N(Agent)+V compounds are the least frequent among the NI compounds. The list given in (94) includes the majority of the N(Agent)+V compounds found in my data base. Most of these compounds have an inanimate noun in the incorporation slot. Note that the only animate nouns available for agent incorporation are names referring to insects.

(94)	<u>Incorporated Noun = Inanimate</u>	
	<u>te:ja-tzet</u> tile- smash	'be smashed by a tile'
	<u>xuytütz-kup</u> needle- puncture	'be punctured by a needle'
	<u>?apit-kup</u> thorn-puncture	'be punctured by thorns'
	<u>mo?tzo-jü:n</u> mud- swallow	'get stuck in the mud'
	<u>pu?- jü:n</u> sand-swallow	'get stuck in the sand'
	<u>?ona-ni:chi:w?</u> lard-drip	'get dripped on by lard'
	<u>mo?tzo-jik</u> mud- get_dirty	'get dirty by mud'

<u>tüpxi-jep</u> rope- scrape	'get scraped by a rope'
<u>ja:mu-pa:t</u> wind- find	'be reached by the wind'
<u>ku?ku-wü:n</u> cramp-pull	'get cramps'
<u>Incorporated Noun = Animate</u>	
<u>pixtük-tzu?tz</u> flea- bit	'be bitten by fleas'
<u>?u:ji-tzu?tz</u> tick- bit	'be bitten by ticks'
<u>pixtük-kay</u> flea -eat	'be eaten by fleas'
<u>pixtük-ju?t</u> flea- tickle	'be tickled by fleas'
<u>?o:chik- tojwit</u> chicken_louse-walk_on	'be walked on by lice'
<u>?a:wat-kay</u> louse- eat	'be bitten by lice'

There is no grammatical or semantic principle that can predict which combinations of a noun, functioning as an agent, plus a transitive verb root are going to result in well-formed agent-incorporating compounds. This is a purely lexical matter. The only discernible principle found in the examples above is that the incorporated agent has to be outranked in saliency by the theme. However, if this principle were the only constraint to create well-formed N(Agent)+V compounds, the examples in (95) would be

grammatical. These compounds were considered ill-formed by Olutec speakers.

- (95) a. * kuchi:nu-tzuk 'be cut by a knife'
 knife- cut
- b. * tza:j-tzet 'be squashed by a stone'
 stone-squash
- c. * ?a:ktza?k-mu:k 'be sucked by a horsefly'
 horsefly- suck
- d. * xu?ni-mukx 'be bitten by a dog'
 dog- bite
- e. * yak-?ampaniwi-?o:k 'be killed by the poison'
 CAUS-poison -die
- f. * kape- t?p 'be stung by a scorpion'
 scorpion-sting

The fact that one cannot predict on semantic or grammatical grounds which N+V combinations are acceptable supports entirely the lexicalist analysis of NI. Sapir (1911), Mithun (1984), inter alia, have argued that N+V compounds are not subject to the rules of syntax which operate within the analytic counterparts. The main claim of the lexicalists is that the noun incorporation compounds convey institutionalized and culturally relevant activities, i.e., activities worth having a lexical item for. Under this view the idiosyncrasies of N+V combinations should be explained together with other processes of word formation. In contrast, a syntactic analysis of NI of the type suggested

by Baker (1988a, 1996), which tries to generate N+V from analytic clauses, cannot explain why certain combinations of N+V are possible and others are ruled out. The same analysis is based on the hypothesis that N(Agent)+V combinations cannot be attested in natural languages since the argument representing the agent is not a sister of the verb. The Olutec data presented above have shown that this assumption is groundless and the predictions false.

2.1.5 Incorporation of Locatives

Olutec also allows Type I NI compounds which include a locative noun preceding the verb root. Locatives are the least common target of incorporation in my corpus. N(Locative)+V compounds convey very specialized meanings which are not completely predictable from the sum of their parts. Locative nouns may incorporate with both intransitive (96) and transitive (97) verbs. Note that locative incorporation does not affect the transitivity of the verb stem. Thus, an intransitive root plus an incorporated locative noun results in an intransitive stem whose only core argument, marked by the absolutive, refers to the participant selected by the verb root.

- (96) a. jeʔ majawtǘk chikxpakaʔ yaʔk me:xatüki:paʔ
 jeʔ majaw-tük chikxpak-aʔ yaʔ =ak
 that woman-PL pretty -NMZR this=AN
 ø= me:xa-tükʔi:yʔ-pa+ʔ
 B3(ABS)=table-enter -NF
 'those pretty women, these waitresses.' (Lit. 'the ones who go to the table.') {rs3/25}
- b. xüwtü:spa tantuku
 ø= xüw-tü:tzʔ-pa tan= tuku
 B3(ABS)=sun-dry -INCI.I A1(PSR)=cloth
 'My cloth is drying in the sun.' {DICT}
- c. minü:ʔo:kam
 mi= nü:- ʔo:k-am
 B2(ABS)=water-die -IRRI
 'You are going to drown.' (Lit. 'You are going to die in the water.') {DICT}

On the other hand, unlike the agent incorporation compounds, a transitive root plus an incorporated locative noun results in a transitive stem. The agent and the theme are the only core arguments of these types of compounds.

- (97) yaknüʔkunaʔk nitüktu:tüwaʔ
 yaknüʔk-ʔunak ø= ni- tük- tu:tʔ-ü -w -aʔ
 poor -DIM B3(ABS)=RFLX-house-put-INV-COMI-NMZR
 'The little poor one who lives at home.' (Lit. the one who puts himself at home.') {C11a/42/650}

Some of these compounds have an analytic counterpart in which the free-standing locative noun appears suffixed by a postposition. Thus, compare (96c) with its unincorporated paraphrase (98).

- (98) miʔo:kam nü:jem
 mi= ʔo:k-am nü: -jem
 B2(ABS)=die -IRRI water-LOC
 'You are going to die in the water.' {ch/DICT}

A few other instances of these compounds found in the corpus are:

- (99) a. xüw-tükʔi:yʔ 'be hot'
 sun-enter
- b. xüw-tzü:kx 'roast in the sun'
 sun-roast
- c. nü:-jiʔkx 'drown in the water'
 water-drown
- d. nü:-küʔta:kʔ 'sink in the water'
 water-sink
- e. nü:-pey 'float'
 water-disappear

Incorporated locative nouns, like incorporated theme, agent and instrument nouns, cannot be modified by words that stand outside of the verb compound. Thus, the incorporated nouns are interpreted as non-specific or non-individuated entities.

2.1.6 Summary of Type I NI

Olutec Type I NI creates verb compounds which contain a noun and a verb. The incorporated noun does not fulfill the role of a syntactic argument. This is demonstrated by two

facts; first, incorporated nouns cannot be modified by words appearing outside the verbal stem, and second, incorporated nouns do not hold any of the four morphosyntactic properties which define direct core arguments. Olutec allows incorporation of agent, themes, instrumentals and locatives. Themes are the most frequent target of incorporation, followed by agents, instruments and locations. Olutec is one of the few languages of the world which incorporates agents. A careful examination of this construction allowed us to eliminate other alternative analyses, i.e analyses in which the incorporated noun was considered to bear a nonagentive role, or analyses that would impugn the agentive bivalent status of the verb involved in the compound.

The incorporation of agents and themes reduces the syntactic valence of the clause. In contrast, the incorporation of instruments and locatives does not affect the syntactic valence of the clause.

The inverse/direct marking patterns within incorporated structures were also examined. Two sets of incorporating compounds obligatorily exhibit the inverse pattern: nonagentive bivalent verbs with an incorporated theme, and canonical transitive verbs with an incorporated agent. The fact that these two constructions are intransitive and follow the inverse pattern shows that the direct/inverse

alternation is independent of the number of syntactic arguments in the clause. All of the semantic arguments selected by the verb, including the incorporated nouns, are ranked within the two hierarchies which determine whether a clause is coded as direct or inverse. A bivalent verb exhibits the direct pattern when the high-ranking argument in the argument hierarchy coincides with the high-ranking argument in the saliency hierarchy. A bivalent verb exhibits the inverse pattern when the opposite is true, i.e., when the high-ranking argument in the argument hierarchy does not coincide with the high-ranking argument in the saliency hierarchy. Incorporated nouns, which are syntactically inert, are by default the lowest-ranked arguments in saliency. Most of these nouns are inanimate and do not refer to individuated entities. Thus, theme-incorporated structures with nonagentive bivalent verbs follow the inverse pattern because the theme, which outranks the location/experiencer in the argument hierarchy, is the least salient participant of the clause. In the same way, agent incorporated structures with canonical transitive verbs follow the inverse pattern because the agent is outranked in saliency by the theme.

2.2 Type II NI

The second type of NI, manipulation of case, within Mithun's (1984) typology is defined as follows:

Type II NI advances an oblique argument into the case position vacated by the IN [Incorporated Noun]. When a transitive V incorporates its direct object, then an instrument, location, or possessor may assume the vacated object role. When an intransitive V incorporates its subject, another argument may be advanced to subject status. (Mithun 1984:856)

The terminology used in this definition is inherited from Relational Grammar (Perlmutter 1983, Perlmutter and Postal 1983). This theory assumes that Type II NI is a process of ascension from a non-term status (oblique) to a term status (subject or object). Research on Type II NI within relational grammar has dealt mostly with cases in which the possessor of a core argument is coded as a direct dependent of the verb whereas the possessum appears incorporated (Allen et al. 1984, Allen et al. 1990, inter alia). This particular type of incorporation is one of the manifestations of what is known in the literature as "possessor ascension", "possessor raising", "possessor promotion" or "external possessor" (Allen et al 1990, Haspelmath 1999, Mithun 1995, Payne and Barshi 1999, Velázquez-Castillo 1995b, inter alia).

Olutec exhibits Type II NI. In these compounds one of the required core arguments is incorporated into a verb without reducing the syntactic valence, i.e., intransitive verbs stay intransitive and transitive (monotransitive and ditransitive) verbs stay transitive. When a core argument incorporates, an instrument, location, or possessor assumes the core argument position vacated by the incorporated argument. Each of these subtypes will be discussed separately.

2.2.1 Theme NI with Trivalent Verbs. The Associative and Instrumental Applicative Constructions

The typology of NI proposed by Mithun does not deal with cases of theme incorporation with trivalent verbs, i.e., derived or underived verbs which include a recipient, associative, instrument, or location as a third clausal core argument. In Olutec, any third argument becomes the primary object of clauses with a N(Theme)+V compound. This is sketched in (100).

- (100) N+V Primary Object (PO)
- a. Theme+V Recipient
 - b. Theme+V Associative
 - c. Theme+V Instrument
 - d. Theme+V Location

At first glance it seems that the four subtypes of constructions sketched in (100) exhibit all the relevant features which define Type II NI. However, a closer examination reveals that only the fourth subtype, which subcategorizes for a location as the primary object of the clause, can be properly characterized as a Type II NI compound. Clauses following this fourth pattern will be discussed in §2.2.2 below. The other three patterns sketched in (100a-c) do not qualify as Type II NI compounds. Mithun's definition of Type II NI presupposes that the recipient, associative and instrument are oblique arguments which "advance" to core status when the theme incorporates. Such an "advancement" is not attested in Olutec, since the third participant (recipient, associative or instrument) is already a core argument within ditransitive clauses in which the theme appears unincorporated.

The essentials of N(Theme)+V compounds with the verb mo:y? 'to give' were already discussed in §2.1.2. The third

selected participant (the recipient) of mo:yʔ is always the "primary object." This is true both in the ditransitive constructions with a non-incorporated theme, (101a), and in the monotransitive constructions with an incorporated theme, (101b).

(101) a. Analytic Constructions = Ditransitive

<u>CORE</u>	<u>CORE(SO)</u>	<u>CORE(PO)</u>	Verb
Agent	Theme	<u>Recipient</u>	mo:yʔ

b. Synthetic Constructions = Monotransitive

<u>CORE</u>	<u>CORE(PO)</u>	NON-CORE+Verb
Agent	<u>Recipient</u>	+ mo:yʔ

That is, the incorporation of the theme to the verb root mo:yʔ does not affect the syntactic status of the recipient although it affects the number of syntactic arguments that can be expressed in the clause. Clauses where both the theme and the recipient are core arguments are ditransitive, whereas clauses with a recipient as a core argument and a theme in the incorporated slot are monotransitive. A similar pattern is attested in the case of semantically trivalent verbs which include an agent, a theme, and an added associative.

Extra-thematic arguments, such as associatives and instruments, become clausal core arguments once the verb

carries an applicative. An intransitive verb plus an associative applicative results in a transitive verb. As an illustration consider the intransitive verb ma:jʔ 'sleep'. The clause in (102a) has only one core argument cross-referenced by the absolutive on the verb. In the same clause the associative participant is overtly marked as an oblique argument by the preposition mü:t 'with'. In contrast, the derived verb mü:-ma:jʔ 'sleep with someone' is transitive. This verb is formed by the applicative mü:- (glossed as ASSOC1) and the intransitive verb root ma:jʔ. The first argument selected by the verb in (102b) is marked by the ergative proclitic, whereas the added associative appears as an unflagged nominal.

- (102) a. ma:pak chu:chunakü mü:tak ʔixuʔninaʔk
 ø= ma:jʔ-pa =k chu:chu-nak
 B3 (ABS)=sleep-INCI.I=AN small -DIM
- mü:t=ak ʔi= xuʔni-nak
 with=AN A3 (PSR)=dog -DIM
 'The little kid sleeps with his little dog.'
 {idl/64}
- b. ʔita:tak ʔimü:ma:pe
 ʔi= ta:ta =k ʔi= mü:- ma:jʔ-pe
 A3 (PSR)=grandson=AN A3 (ERG)=ASSOC1-sleep-INCI.T
 'She sleeps with her grandsons.' {lm3/148}

A transitive verb root plus an associative applicative results in a ditransitive verb. For instance, the transitive

verb yak+wakx 'scatter, distribute' plus the applicative results in the ditransitive verb mü:-yak+wakx 'scatter together with someone'. The associative participant is expressed by an oblique nominal in the transitive construction, (103a), and by an unflagged nominal in the ditransitive construction, (103b).

- (103) a. tanyakwakxpe kajchanü:nü mü:tak xi:mu
 tan= yak+wakx-pe kajcha+nü:nü mü:t=ak
 A1(ERG)=scatter -INCI.T bread with=AN
- xi:mu
 Simon
 'I am giving away bread with Simon.'
- b. tanmü:yakwakxpek kajchanü:nü xi:mu
 tan= mü:-yak+wakx-pe =k kajcha+nü:nü
 A1(ERG)=ASSOCI-scatter -INCI.T=AN bread
- xi:mu
 Simon
 'I am giving away bread with Simon.'

In ditransitive clauses of the type illustrated in (103b), the theme functions as secondary object, whereas the added argument (the associative) functions as primary object. This is confirmed by the fact that the added associative, but not the theme, is cross-referenced by the absolutive proclitic in inverse, reciprocal/reflexive, and passive constructions.

- (104) a. Inverse
 jeʔ ʔa:ma:xanak tamü:kapxej
 jeʔ ʔaw+ma:xan=ak tan= mü:- kapx-e -j
 that Spanish =AN A1(ABS)=ASSOC1-talk-INCD-INVD.I
 'She speaks Spanish with me.' {aandb/105}
- b. Reciprocal
 nimechi ʔinimü:kapxkúxij
 ni+metzi ʔi= ni- mü:- kapx-kúx-i -j
 pair A3(ABS)=RECP-ASSOC1-talk-PL3-INCD-INVD.I
 'The two of them were speaking (Spanish) with each other.' {rs5/9}
- c. Passive
 tyakmü:kapxu ʔa:ma:xan
 ta= yak- mü:- kapx-u ʔaw+ma:xan
 B1(ABS)=PASS-ASSOC1-talk-COMI Spanish
 'I was addressed in Spanish.'

Some ditransitive mü:-V stems may incorporate their theme, resulting in monotransitive verbs. The agent and the added associative are the only two core arguments of clauses with an incorporated theme. The morphosyntactic status of the agent, the theme and the recipient within the analytic and synthetic (incorporating) constructions is sketched in (105).

- (105) a. Analytic Construction = Ditransitive

<u>CORE</u>	<u>CORE(PO)</u>	<u>CORE(SO)</u>	Verb
Agent	Associative	Theme	<u>mü:-V</u>

- b. Synthetic Construction = Monotransitive

<u>CORE</u>	<u>CORE(PO)</u>	<u>NON-CORE+Verb</u>
Agent	Associative	(<u>mü:-theme+V</u>)

The examples given in (106) illustrate the monotransitive type of clause in which the theme occurs incorporated.

- (106) a. $\text{ʔimü:ʔitu jaʔ mü:t ʔimü:ʔawoktunuk}$
 $\text{ʔi= mü:- ʔit -u jaʔ mü:t}$
 A3(ERG)=ASSOC1-exist-COMI 3AN and
- $\text{ʔi= mü:- ʔawok- tun-u =k}$
 A3(ERG)=ASSOC1-offspring-do -COMI=AN
 'She was together with him and made children with him.' {23/79/633}
- b. $\text{tamü:yoxtunuk jeʔk tamü:na:xmü}$
 $\text{tan= mü:- yox+e-tun-u =k jeʔ =k}$
 A1(ERG)=ASSOC1-work- do -COMI=AN that=AN
- tan= mü:+na:x+mü
 A1(PSR)=countryman
 'I worked with my fellow countryman.' {olu28/444}
- c. $\text{tamü:nitzukintuniyakü}$
 $\text{ta= mü:- ni- tzukin-tun-i -y =ak}$
 C3(ERG)=ASSOC1-RECP-fight- do -COMD-INVD.C=AN
 '(Later on) they fought among themselves.'
 {olu9/104}
- d. $\text{tamü:nichuʔxchikxi:xü jeʔk yoʔjwa}$
 $\text{ta= mü:- ni- chuʔx-chikx-i -y =xü}$
 C3(ERG)=ASSOC1-RECP-god- have_-COMD-INVD.C=EV
- jeʔ =k yoʔjwa
 that=AN man
 'It is said that he and that man greeted among themselves.' {rs3/33}¹⁰

The associative participant within the examples shown in (106) does not occupy the syntactic slot vacated by the incorporated theme, as the definition of Type II NI predicts. It has been shown that the associative participant

is the PO in both types of mu:-V constructions (the synthetic, (106a-b), and the analytic, (103b)). When the theme incorporates, the secondary object position is not filled by any other participant. The set of examples in (107) shows that an oblique associative cannot occupy the PO slot without being first added to the argument structure of the verb via the applicative mü:-. The monotransitive clause in (107a) has an agent and a theme as core arguments. The associative is overtly marked as oblique. In (107b), the semantic theme is incorporated, resulting in an intransitive clause. In this construction the agent is cross-referenced by the absolutive and the associative remains oblique. The same type of clause, but with the associative occupying the slot vacated by the theme, results in an ill-formed structure, as shown in (107c). The extra-thematic associative can be coded as PO of the clause only if the verb root is previously derived by mü:-, as shown in (107d).

- (107) a. Transitive with Associative as Oblique
 kaja:jatpa mixtuni ?oyamej yoxe mü:tak tamü:na:xmü
 ka:=ja:= jat -pa mix= tun-i ?oyamej
 NEG=MIRAT=be_able-INCI.I C2(ERG)=do -INCD properly

 yox+e mü:t=ak tan= mü:+na:x+mü
 work with=AN A1(PSR)=countryman
 'You cannot do the job properly anymore together
 with my fellow countryman.' {c/lm3/536}

- b. Intransitive (Theme NI) with Associative as Oblique
 tyoxtunu mü:tak chu:chuwo?k
 ta= yox+e-tun-u mü:t=ak chu:chu-wok
 B1 (ABS)=work -do -COMI with=AN small -DIM
 'I worked with the kids.' {deaa/76}
- c. Transitive (Theme NI) with Associative as PO
 * tanyoxtunu chu:chuwo?k
 tan= yox+e-tun-u chu:chu-wok
 A1 (ERG)=work -do -COMI small -DIM
 (Intended reading: 'I worked with the kids.')
- d. Transitive with Added Associative as PO
 minmü:yoxtunu ?e:xi
 min= mü:- yox+e-tun-u ?e:xi
 A2 (ERG)=ASSOC1-work -do -COMI foreigner
 'You worked with the American.' {rp2/372}

The discussion in §2.1.4.3 demonstrated that instruments may be construed as core arguments of the clause when a verb root is derived by the applicative toj-. Intransitive verb roots prefixed by toj- form transitive verbs, as in (82), and transitive verb roots prefixed by toj- form ditransitive verbs, as in (83). The examples in (84) showed that themes in the toj-V construction are cross-referenced by the absolutive in the inverse, passive, and reflexive constructions. These facts proved that ditransitive clauses of this type have a theme functioning as PO and an added instrument functioning as SO, as sketched in (108a).

Ditransitive verb stems derived by the applicative toj- may incorporate their theme. In these types of compounds the incorporated theme loses its status as a syntactic argument. The result, sketched in (108b), is a monotransitive verb with an agent and an instrument as the only two core arguments of the clause.

(108) a. Analytic Construction = Ditransitive

<u>CORE</u>	<u>CORE(SO)</u>	<u>CORE(PO)</u>	Verb
Agent	Instrument	Theme	toj-V

b. Synthetic Construction = Monotransitive

<u>CORE</u>	<u>CORE(PO)</u>	<u>NON-CORE+Verb</u>
Agent	Instrument	(<u>toj-theme+V</u>)

An example of a monotransitive toj-N(Theme)+V compound which includes an instrument in its argument structure is given in the second clause of (109). This compound includes a non-referring theme, tra:ste 'dish,' and a verb root, puj 'to wash'. The agent is signaled by the first-person ergative on the verb. The instrument, in the same clause, is anaphorically recovered. This argument is expressed by a full noun limun 'lemon' in the previous clause. The incorporated theme, the noun tra:ste 'dish,' does not exhibit any of the four morphosyntactic features which distinguish direct core arguments.

- (109) porke tawampe ?ü:s limu?n para tantojtra:stepujpe
 porke tan= wa:n?pe ?ü:tz limun
 because A1(ERG)=want -INCI.T I lemon
 para tan= toj- tra:ste-puj -pe
 for A1(ERG)=INSTR-dish -wash-INCI.T
 'because I want lemon for dish-washing.' {rs8/230-1}

The PO status of the instrument is corroborated by the fact that in the passive, the instrument and not the theme is cross-referenced by the absolutive on the verb. In (110) the noun limun cross-references the third-person proclitic ?i=.

- (110) na?kxej limu?n ?iyaktojtra:stepuji
 na?kxej limun ?i= yak- toj- tra:ste-puj -i
 when lemon A3(ABS)=PASS-INSTR-dish- wash-COMD
 'When dishes were washed with lemon [...]'
 {ch/rs8/230}

Other examples where the theme is the target of incorporation and the instrument represents the second syntactic argument of the clause are given in (111).

- (111) a. tantojkamatumpe minna:xü
 tan= toj- kama- tun-pe min= na:x
 A1(ERG)=INSTR-corn field-do -INCI.T A2(PSR)=land
 'I cultivate corn using your field.' {MIAA}
- b. ?ika?tojyoxètunküxpek ?ina:xü
 ?i= ka:=toj- yoxe-tun-küx-pe =k
 A3(ERG)=NEG=INSTR-work-do -PL3-INCI.T=AN
 ?i= na:x
 A3(PSR)=earth
 'They do not work their land.' {C24/38/302}

Thus, contrary to the recipient and the associative which maintain the same syntactic status when the theme incorporates, the instrument does change its syntactic status when the theme incorporates. In the analytic form, the instrument is a secondary object, as sketched in (108a), whereas in the the synthetic construction, as sketched in (108b), the instrument functions as primary object.

This "advancement" from secondary to primary object is not the one predicted by Mithun. Her definition of Type II NI postulates that an oblique instrument becomes the (primary) object of the clause once the theme incorporates to a transitive verb. The examination of the examples in (112) shows that this outcome is not attested in Olutec. The transitive clause in (112a) includes a theme, acting as primary object, and an instrument, overtly marked as oblique. The clause with an incorporated theme is intransitive, as in (112b). Note that the only core argument (the agent) is marked by the absolutive on the verb. In the same clause the instrument stays oblique. The ill-formed construction in (112c) confirms that the instrument cannot occupy the vacated position left by the incorporated theme.

- (112) a. Theme = Core, Instrument = Oblique
 nü:jü tanʔu:kam mü:t tuʔk chima
 nü: tan= ʔu:k -am mü:t tuk chima
 water Al(ERG)=drink-IRRI with one gourd
 'I will drink water with a gourd.'
- b. Incorporated Theme, Instrument = Oblique
 tannü:ʔu:kam mü:t tuʔk chima
 ta= nü:- ʔu:k -am mü:t tuk chima
 Bl(ABS)=water-drink-IRRI with one gourd
 'I will water-drink with a gourd.'
- c. Agrammatical: Instrument = Core
 * tannü:ʔu:kam tuʔk chima
 tan= nü:- ʔu:k -am tuk chima
 Al(ERG)=water-drink-IRRI one gourd
 Intended reading: 'I will water-drink with a
 gourd.'

Only verbs derived by the applicative toj- can take an instrument as a core argument. Compare the ill-formed clause in (112c), which lacks the applicative, with the well formed clause in (113), which includes the applicative. In (113) the instrument is the PO of the second clause whose verb has an incorporated theme.

- (113) tanwampe tuʔk chima tantojnü:ʔu:kam
 tan= wa:nʔ-pe tuk chima
 Al(ERG)=want -INCI.T one gourd
- tan= toj- nü:- ʔu:k -am
 Al(ERG)=INSTR-water-drink-IRRI
 'I want a gourd to water-drink.' {DICT}

In sum, theme incorporation with derived verbs which include an added associative or an added instrument in their argument structure does affect the transitivity of the

clause. Analytic constructions are ditransitive clauses, whereas incorporating constructions are monotransitive clauses. When the theme incorporates, the syntactic status of the added associative is the same as in the non-incorporating counterpart. Under the same circumstances the syntactic status of the added instrument changes from being a SO in the non-incorporating structure, to being a PO in the incorporating counterpart. None of these outcomes were predicted in the typology of NI proposed by Mithun.

2.2.2 Type II with a Location/Goal as a Direct Core Argument

Olutec verbs such as yakka? 'move something down' and tu:t? 'put' can appear in clauses with three participants: an agent, a theme and a location or goal. In this type of clause the agent and the theme function as direct core arguments whereas the location or goal stands as an oblique argument (marked by a postposition). In (114a) the agent is expressed by the second-person ergative proclitic on the verb, the theme is expressed by the unmarked noun tzümi 'load,' and the location is expressed by the noun kamyon 'truck' suffixed by the postposition -jem 'from, on'. A similar pattern is attested in (114b) where the agent is

expressed by the first-person ergative proclitic on the verb, the theme is expressed by the unmarked noun kuxtat 'sack,' and the location is expressed by the possessed noun tanküx 'my back' suffixed by the postposition -mü 'on'.

- (114) a. minyaka?ame:t tzümi kamyonjem
 min= yak- ka? -am -e:t tzümi kamyon-jem
 A2(ERG)=CAUS-descend-IRRI-PL.SAP load truck -LOC
 'You (pl) are going to bring the load down from
 the truck.' {olu28/508}
- b. kuxta?t taxtu:ti tanküxmü
kuxtat tax= tu:t?-i tan= küx -mü
 sack C1(ERG)=put -COMD A1(PSR)=back-LOC
 'I put the sack on my back.' {olu28/526}

Verbs such as yakka? 'bring something down' and tu:t? 'put' may incorporate their semantic themes, as in (115a-b). The resulting compounds stay transitive, i.e., the N(Theme)+V compounds subcategorize for two direct core arguments. The first core argument is an agent, whereas the second one is a location or goal.

- (115) a. minyaktzümika?ame:t kamyo?n
 min= yak- tzümi-ka? -am -e:t kamyon
 A2(ERG)=CAUS-load- descend-IRRI-PL.SAP truck
 'You (pl) are going to unload the truck.'
 {olu28/509}
- b. ?inü:tu:tpek jamaj püjitü?k
 ?i= nü:- tu:t?-pe =k jamaj püji -tü?k
 A3(ERG)=water-put -INC.T=AN that flower-PL
 'He is watering those flowers.' {DICT}

Mithun's definition of Type II NI properly accounts for structures such as the ones in (115a-b). Type II NI verbs are transitive since the syntactic slot emptied by the incorporated theme is occupied by the otherwise oblique argument expressing the role of a semantic location or goal.

There are two morphosyntactic features which confirm the transitivity of Type II NI structures. First, the agent is marked on the verb by the ergative proclitic in direct clauses, as in (115a-b).¹¹ If these clauses were intransitive, the agent would be marked by the absolutive proclitic. Second, in direct independent clauses the verb takes the inpletive -pe, as in (115b). Recall that there are two inpletive markers for independent clauses: -pe occurs with transitives and -pa with intransitives.

The direct core status of the locative argument in Type II NI structures is confirmed by four facts. First, the nominal representing the locative is no longer marked by a postposition. Contrast the noun kamyon 'truck' marked by the postposition -jem in (114a) with the same noun without the postposition in the clause with the theme incorporated, (115a). Second, the locative argument in Type II NI structures binds with the agent in reflexives, as in (116).

- (116) taʔutüp ʔü:tz tanʔamʔetze mü:t tanipüjituʔtij
 ta= ʔut -ü -pa ʔü:tz
 B1(ABS)=like-INV-INCI.I I
- tan= ʔam -ʔetz -e mü:t
 A1(ABS)=huapango-dance-INCD and
- tan= ni- püji- tu:tʔ-i -j
 A1(ABS)=RFLX-flower-put -INCD-INVD.I
 'I like to dance huapango and to put flowers on
myself.' {C10/6/1}

Third, the locative participant is the only syntactic argument of passives, as in (117).

- (117) jemeʔ mü tüʔkxaʔn ʔiʔiti ʔiyakpüjituʔti
 jeʔ+mü=jeʔ jumü tüʔkxan ʔi= ʔit -i
 there =CLEFT where candles A3(ABS)=exist-INCD
- ʔi= yak- püji- tu:tʔ-i
 A3(ABS)=PASS-flower-put -INCD
 'It is there where the candles are, where flowers
 are being put.' {C11b/10/9}

And fourth, the locative is cross-referenced by the absolutive proclitic in the inverse pattern, as in (118).

- (118) tayakxi:napetüpaʔ
 ta= yak -xi:na-pet -ü -pa =jaʔ
 B1(ABS)=CAUS-chair-ascend-INV-INCI.I=3AN
 '(When I was young immediately I was climbed on
 [...]) they used to saddle me.' {C11a/59/765}

Other examples where the theme is the target of incorporation and the locative participant occupies the second syntactic argument of the clause are given in (119).

- (119) a. jeʔ ʔu:raxük tyaktzümipeti ʔikawa:yu
 jeʔ ʔu:ra=xü=k ta= yak -tzümi-pet -i
 that hour =EV=AN C3(ERG)=CAUS-load- ascend-COMD
 ʔi= kawa:yu
 A3(PSR)=horse
 'That's when he loaded his horse.' {olu4/121}
- b. jeʔ ʔu:ra tayakxi:nakaʔi nimesko ʔikawa:yu
 jeʔ ʔu:ra ta= yak- xi:na-kaʔ -i
 that hour C3(ERG)=CAUS-chair-descend-COMD
 nimetzko ʔi= kawa:yu
 two A3(PSR)=horse
 'That's when he unsaddled his two horses.'
 {C22/92/240}
- c. yakxi:napeta jaʔ minwu:rro
 yak- xi:na-pet -a jaʔ min= wu:rro
 CAUS-chair-ascend-IMPR DEF A2(PSR)=donkey
 'Saddle your donkey!' {C11a/44/664}
- d. tanyakumupitzümpe yuʔkunaʔk
 tan= yak- kumu-pitzüm-pe yuʔuk-ʔunak
 A1(ERG)=CAUS-worm-exit -INCI.T pot -DIM
 'I am taking the worms out of the little pot.'
 {DICT}
- e. tanyaknü:ni:naxpek tuʔk ʔi:tzümü
 tan= yak- nü:- ni:+nax -pe =k tuk
 A1(ERG)=CAUS-water-pass_on_surface-INCI.T=AN one
 ʔi:tzümü
 pig
 'I am washing a pig (before butchering it).'
- f. tanyakpituke:kuk xi:mu
 tan= yak- pitu- ke:kʔ -u =k xi:mu
 A1(ERG)=CAUS-stain-get_rid_of-COMI=AN Simon
 'I removed the stains out of Simon.' {DICT}
- g. pün pü:k xüwtu:tüw chi:ka
 pün pü:k ø= xüw- tu:tʔ-ü -w chi:ka
 who DUB B3(ABS)=name-put -INV-COMI Chica
 'Who knows who named her Francisca.' {vg3/375}

- h. tantzujiktu?tama?
 tan= tzujik-tu:t?-am =ja?
 A1(ERG)=saliva-put -IRRI=3AN
 'I am going to put saliva on him.' {DICT}
- i. ?ixapuntu:tpe ?ituku
 ?i= xapun-tu:t?-pe ?i= tuku
 A3(ERG)=soap- put -INCI.T A3(PSR)=cloth
 'He is lathering his clothes.' {DICT}

Important differences result when comparing the outcome of theme incorporation with verb roots such as tu:t? 'put' and yakka? 'bring something down,' with respect to the outcome of theme incorporation with verb roots such as mo:y? 'give' or to verb stems derived by the instrumental applicative toj-. First, the location changes its syntactic status from oblique to core when the theme incorporates to verb roots such as tu:t? and yakka?. Second, the syntactic valence of the clause does not change when the theme incorporates to verb roots such as tu:t? 'put' and yakka? 'bring something down'. Clauses with a core theme and an oblique location are monotransitives, similar to clauses where the theme is incorporated and the location is core.

Table 11 summarizes the properties of the different N+V compounds which select for three semantic arguments.

TABLE 11. Properties of Semantically Trivalent Verbs with and without an Incorporated Theme.

	<u>Non-incorporated Theme</u>			<u>Incorporated Theme</u>		
	# Core args.	Status Theme	Status of 3rd partic.	# Core args.	Status Theme	Status of 3rd partic.
<u>mo:y?</u> 'give'	3	Core: Second. Object	Core: Primary Object	2	Non-core: inert	Core: Primary Object
<u>mü:-V</u> ASSOC1	3	Core: Second Object	Core: Primary Object	2	Non-core: inert	Core: Primary Object
<u>toj-V</u> INSTR	3	Core: Primary Object	Core: Second Object	2	Non-core: inert	Core: Primary Object
<u>tu:t?</u> 'put'	2	Core: Primary Object	Oblique	2	Non-core: inert	Core: Primary Object

2.2.3 Noun Incorporation and External Possession

One of the most productive NI structures in Olutec occurs when the semantic possessum (PSM) of a clausal core argument combines with a verb stem to form a N+V compound. The resulting compound maintains the same syntactic valence of the non-incorporated verb stem, i.e the N+V requires the same number of direct core arguments as the governing V without the incorporated PSM. When the PSM of a clausal core

argument incorporates the semantic possessor (PSR) of the same argument occupies the vacated slot. This pattern of NI belongs to Mithun's Type II NI and is known in the literature as NI by "possessor ascension," "possessor raising" or "external possessor" (Allen et al 1984, Allen et al 1990, Mithun 1984, Velázquez-Castillo 1995, 1996). In this study, following Payne and Barshi (1999), the term external possessor (EP) will be adopted to avoid the theoretical assumptions of the other two labels. The analytic counterpart will be referred to as internal possessor construction (IPC), i.e., a construction where the PSR is a direct dependent of the PSM and not of the verb stem.

2.2.3.1 EP by NI with Monovalent Verbs

An example of an external possessor construction (EPC) with a monovalent verb is (120b). (120a) stands for the internal possessor (IP) counterpart of the EPC. In (120a) the only core argument of the clause, the one cross-referenced by the absolutive proclitic on the verb, is a possessed noun phrase. This noun phrase includes a first-person PSR, the proclitic tan=, and a third person PSM,

which is the noun pu?pu 'belly'. In contrast, in the EP counterpart, shown in (120b), the PSM and verb root ye:k 'grow' form an N+V compound. The only core argument of the EPC in (120b) is signaled on the verb by the first-person absolutive proclitic ta=, which corresponds to the semantic PSR of the possessed nominal phrase in the IP counterpart. Both the N+V compound which results from this type of incorporation and the simple verb in the IP counterpart are intransitive.

(120) a. IPC: PSR as dependent of the PSM
 ye:ku tampu?pu
 ∅= ye:k-u tan= pu?pu
 B3 (ABS)=grow-COMI A1 (PSR)=belly
 'My belly grew.'

b. EPC by NI
 tapu?puye:ku
 ta= pu?pu-ye:k-u
 B1 (ABS)=belly-grow-COMI
 'My belly grew.' (Lit. 'I belly-grew.') {C19/65}

When both the IPC and the EPC are possible, the speakers choose one or the other according to the discourse prominence of the PSM or of the PSR of the NP involved. When the PSM is more prominent in a particular fragment of discourse, the IPC is used. When the PSR is what is being talked about, the EPC is used instead.

EPC constructions always entail that the PSR of the theme has been beneficially or adversely affected. The following fragment of a narrative describes how a sorcerer puts a spell on a man who was sent by the authorities of the town to the sorcerer's house. In the (121a) the narrator first introduces the body-part as new information via an external NP; but once it is old information, the body-part appears incorporated, (121c).

- (121) a. ?inaxi tu?k po?a ?ixiyixü?k ?iye:ke ?ipu?pu?
 ?i+nax+i tuk po?a ?ix?i:y?-i =xü=k
 it.passed one month begin -COMD=EV=AN
- ?i= ye:k-e ?i= pu?pu?
 A3(ABS)=grow-INCD A3(PSR)=belly
 '...a month passed, his belly (of the employee)
 began to grow.'
- b. That happened because the old man bewitched him. The sorcerer, who is already dead too, killed the poor guy (the employee), the one who went to call him [...] I do not know what did he put into the poor guy. He died.
- c. pu?puye:ku ja?, je?mü:tak ?i?o:ki
 ø= pu?pu-ye:k-u ja?, je?- mü:t=ak
 B3(ABS)=belly-grow-COMI 3AN, that-and =AN
- ?i= ?o:k-i
 A3(ABS)=die -INCD
 'His belly grew and for that reason he died.'
 {C19/72-3}

Not all IPC's have a corresponding EP counterpart. N+V compounds are lexical units which refer to activities or

states which are culturally relevant. Olutec speakers have a vast inventory of these compounds which include incorporated body parts but a very limited inventory of compounds which include incorporated kinship terms. Thus, whereas the IPC in (120a) has an EP counterpart (120b), the IPC in (122a) does not have an EP counterpart. The verb ti:yu-ye:k in (122b) was rejected by all the speakers who were consulted.

- (122) a. naxe:k ?iye:ki tanti:yu
 na?kxej=k ?i= ye:k-i tan= ti:yu
 when =AN A3 (ABS)=grow-COMD A1 (PSR)=uncle
 'When my uncle grew up.' {C24/1/1}
- b. * na?kxej tan= ti:yu-ye:k-i
 when A3 (ABS)=uncle-grow-COMD

All the intransitive verb roots which form Type II NI compounds are nonagentive verbs (i.e., "unaccusative"). The PSM of the subject of agentive intransitive verbs (e.g., piyü?k 'run,' wit 'walk,' yun 'swim') never incorporates. Instances where the PSM of the agentive nominal incorporates result in ill-formed constructions, such as (123b).

- (123) a. piyü?kuk tan?unakü
 ø= piyü?k-u =k tan= ?unak
 B3 (ABS)=run -COMI=AN A1 (ABS)=son
 'My son ran.'
- b.* ta?unakpiyü?ku
 ta= ?unak-piyü?k-u
 B1 (ABS)=son- run -COMI
 (Intended reading: 'My son ran.')

As a second constraint, only a restricted set of nouns can appear in EPC's of the type illustrated in (120b). The nouns which may appear incorporated belong to one of the following four semantic subclasses: a) body parts, b) excretions, c) part of wholes, and d) kinship terms. Body-part terms are the most common incorporated elements, followed by excretions, parts of wholes and kinship terms. The only two nouns belonging to the last subset which appear in N+V compounds are majaw 'woman, wife' and ?unak 'child, son'. Additional examples of intransitive N(PSM)+V compounds are given in (124).

(124) a. Incorporation of Body Parts:

<u>jot-po:x</u> innards-delay	'breathe heavily'
<u>jüp-xi:t</u> nose-blow	'blow the nose'
<u>jot-mo?t</u> stomach-be_crazy	'worry'
<u>kü?x-?an?i:y?</u> foot-tire	'somebody's foot gets tired'
<u>pu:tzük-ki:x?</u> navel-swell	'somebody's navel swell'
<u>kapap+pak-mutz</u> rib-break	'somebody's ribs get broken'

<u>ʔaw-ʔuyuk</u> mouth-become_crooked	'somebody's mouth becomes crooked'
<u>yoʔk-pimim</u> throat-thunder	'be horse, grouse, growl'
<u>win-piʔtz</u> eye-extinguish	'somebody's eyes closes'
<u>natzküʔ-jokʔi:yʔ</u> neck-stain	'somebody's neck breaks out with spots'
<u>küʔ-ʔo:k</u> hand-die	'somebody's hand falls sleep'
<u>ʔe:me-wo:n</u> tendon-stretch	'sprain'
<u>küʔ-müpüp</u> hand-shake	'somebody's hand shivers'
<u>küʔx-xam</u> foot-get_warm	'somebody's feet get warm'
<u>ʔa:ka-xuxum</u> cheek-get_num	'somebody's cheek gets numb'
<u>ʔa:ka-ki:xʔ</u> cheek-swell	'somebody's cheek swells'
<u>win-tza:yʔ</u> eye-be_bright	'somebody's eye is bright'
<u>ʔa:nima-küm+ti:yʔ</u> heart-throb	'somebody's heart throbs'
<u>koxo-pu:tzʔ</u> knee-rot	'somebody's knee rots'
<u>küʔ-ʔoyajat</u> hand-get_better	'somebody's hand gets better'

b. Incorporation of Excretions

<u>jo:mak-kotz</u> sweat-stick with glue	'sweat sticky stuff'
<u>jüpunuk-pitzüm</u> booger-exit	'have a runny nose'
<u>tü:nʔik-pitzüm</u> excrement-exit	'earwax comes out'
<u>tzujik-pitzüm</u> saliva-exit	'drool'
<u>nü:-pitzüm</u> water-exit	'ejaculate'
<u>ta:tzʔitz-xu:k</u> urine-stink	'somebody's urine stinks'

c. Incorporation of Parts of Wholes

<u>ʔawküʔx-ni:tu:tʔ</u> branch-sprout	'the branch of a tree sprouts'
<u>ʔo:pik-pitzüm</u> foam-exit	'water's foam comes out'
<u>küʔx-joʔn</u> foot-loosen	'chair's leg loosens'
<u>ta:tzük-jo:yta:kʔ</u> ear-break	'jar's handle breaks'

d. Incorporation of Kinship Terms

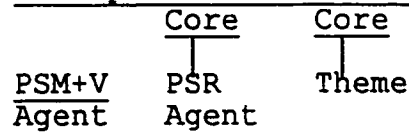
<u>majaw-ʔo:k</u> woman-die	'somebody's wife dies'
<u>majaw-ta:kʔ</u> woman-give_birth	'somebody's wife gives birth'

<u>majaw-kujum</u> woman-get sick	'somebody's wife gets sick'
<u>?unak-ko:woppet</u> child-hit	'hit somebody's child'
<u>?unak-ka?</u> child-descend	'miscarry'
<u>?unak-ye:k</u> child-grow	'somebody's son grows'

N+V compounds with an EPC interpretation are also formed with bivalent agentive (canonical transitive), nonagentive bivalent and trivalent (ditransitive) verb stems. Each subtype of N+V compound will be discussed separately.

2.2.3.2 EP by NI with Bivalent Agentive Verbs

Bivalent agentive verbs participate in two types of N+V compounds in which the incorporated noun refers to the semantic PSM of a clausal argument. In the first type, the incorporated noun (IN) refers to the PSM of the agent, as sketched in (125a).¹² In the second one, the IN refers to the PSM of the theme, as in sketched (125b). The incorporation of a nominal does not change the syntactic valence of the clause. The two types of N+V compounds illustrated in (125) are transitive.

(125) a. Incorporation of PSM of Agentb. Incorporation of PSM of Theme

The clause taʔapitkupüw kuma in (126) illustrates the structure sketched in (125a). This clause has two core arguments: the PSR of the agent expressed by the noun kuma 'coyol palm,' and the theme, expressed by the first-person absolutive ta=. The PSM of the agent is the incorporated noun ʔapit 'thorn'.

- (126) nakxej taʔoyi kuyjotpi taʔapitkupüw kuma
 nakxej tan= ʔoy-i kuy -jot -pi
 when A1(ABS)=go -COMD tree-inside-LOC
- ta= ʔapit-kup -ü -w kuma
 B1(ABS)=thorn-prick-INV-COMI coyol_palm
 'When I went to the bush I got pricked by the
thorn of the coyol palm.' (Lit. 'When I went to
 the bush the coyol palm thorn-pricked me.')

The clause in (127) illustrates the structure sketched in (125b). The two core arguments of this clause are: the PSR of the theme, expressed by the first person absolutive ta=, and the agent expressed by the noun ʔapit 'thorn'. The PSM of the theme is the incorporated noun küʔ 'hand'.

- (127) taküʔkupüw ʔapiʔt
 ta= küʔ- kup -ü -w ʔapit
 B1(ABS)=hand-prick-INV-COMI thorn
 'I got hand-pricked by a thorn.' (Lit. 'The thorn
 hand-pricked me.')

The type of construction shown in (126) has not been reported in the cross-linguistic studies¹³ and is rather unproductive in Olutec.¹⁴ In contrast, the type of construction in (127), which is very productive in Olutec, is found in many other incorporating languages such as Tupinambá, Blackfoot (Mithun 1984), Nahuatl (Merlan 1976), Mohawk (Mithun 1984, 1995), Southern Tiwa (Allen et al 1990), Nadëd (Weir 1990), Guaraní (Velázquez-Castillo 1995, 1996), and Chukchi (Spencer 1995) among others.

The EPC's in (126) and (127) have IPC paraphrases, i.e., constructions where the PRS and PSM form a constituent. In the IPC the PSM is a clausal argument and the PSR is a dependent of the PSM. (128) is the IPC counterpart of (126), and (129) is the IPC counterpart of (127).

- (128) takupüw kuma ʔiʔapiʔt
 ta= kup -ü -w kuma ʔi= ʔapit
 B1(ABS)=prick-INV-COMI coyol_palm A3(PSR)=thorn
 'The coyol palm's thorn pricked me.'

- (129) kupüw ʔapiʔt tanküʔ
 ø= kup -ü -w ʔapit tan= küʔ
 B3(ABS)=prick-INV-COMI thorn A1(PSR)=hand
 'A thorn pricked my hand.'

There are several pieces of evidence which support the claim that the PSR, but not the incorporated PSM, is a clausal argument in the EPC. First, the PSR of the EPC can be expressed by an unflagged noun phrase. The noun kuma 'coyol palm' is the PSR of the agent in (126). The noun phrase tuk yoʔjwa 'a man' is the PSR of the theme in (130).

- (130) mü:tak tawintojʔe:püki tuʔk yoʔjwa
 mü:t=ak ta= wintoj-ʔe:p+pük-i tuk yoʔjwa
 and =AN C3(ERG)=face -look at -INCD one man
 'And he is looking at a man's face.' {rsch2/132}

Second, the PSR of the theme is signaled by the absolutive on the verb in the inverse pattern, as in (131). Recall that only core arguments can be overtly marked by a pronominal proclitic on the verb.

- (131) mejo:rak minwintojʔe:püküxij
 mejor =ak min= wintoj-ʔe:p+pük-küx-i -j
 better=AN A2(ABS)=face- look at -PL3-INCD-INVD.I
 'They better look at your face.' {C21/77/21}

Third, the PSR of the theme binds with the agent in both reciprocal (132a-b) and reflexive (133a-b) clauses which include a PSM+V compound. Reciprocals and reflexives follow the inverse pattern. The absolutive proclitic on the verb in these two constructions refers to the second core argument of the clause, i.e., the one which is coreferential with the

agent. The absolutive on the verb signals the PSR of the theme both in (132a-b) and (133a-b).¹⁵

- (132) a. ni xuʔni ni po:jü niwintoʔe:püküp
 ni xuʔni ni po:j
 NEG dog NEG possum
- ∅= ni- wintoj-ʔe:p+pük-ü -pa
 B3 (ABS)=RECP-face -look_at -INV-INCI.I
 'Neither the dog nor the possum are looking at each other.' {rs6/42}
- b. tayakniküʔtziyüwü:tüʔs jem
 ta= yak- ni- küʔ- tzi:yʔ-ü -w -ü:t -ütz
 B1 (ABS)=CAUS-RECP-hand-stick -INV-COMI-PL.SAP-EXCL
- jeʔ+mü
 there
 'We shook hands there.' {C8/88/32}
- (133) a. mü:tak ʔiniwintojki:pj
 mü:t=ak ʔi= ni- wintoj-ki:p -i -j
 and =AN A3 (ABS)=RFLX-face -clean-INCD-INVD.I
 'And he is cleaning his face himself.' {rspf2/507}
- b. minikoʔpakni:ja:xüp segi:du
 mi= ni- koʔpak-ni:ja:x-ü -pa segi:du
 B2 (ABS)=RFLX-head- rub -INV-INCI.I often
 'You are rubbing your head quite often.'
 {ch/siem/45}

And fourth, the possessor of the theme is the only core argument of the passives which include a PSM+V compound. The PSR of the theme is expressed by the third-person absolutive proclitic in (134a) and by the first-person absolutive proclitic in (134b).

- (134) a. jata ʔiyakʔixko:kopüʔkxi
 jata ʔi= yak- ʔüxko:ko-püʔkx-i
 right_away A3(ABS)=PASS-back -slap -COMD
 'He was slapped on his back right away.' (Lit. 'He
 was back-slapped.') {rs3/45}
- b. jeʔ ʔu:ra tyakpuʔputuji
 jeʔ ʔu:ra tan= yak- puʔpu-tuj -i
 that hour A1(ABS)=PASS-belly-shoot-COMD
 'that's when I was shot in the belly.' (Lit. 'I
 was belly-shot.') {ch/ven2/79}

As stated above, the incorporation of a PSM of a transitive agent is the most infrequent of all the EPC's within my corpus. Inanimate nouns referring to parts of wholes and body-part terms are the only set of nominals attested within this type of compound. Four additional examples of N(PSM of Agent)+V are:

- (135) a. mü:t minüʔpinkoyanüp kawakʔayü
 mü:t mi= nüʔpin-ko-y -anüpa kawak- ʔay
 and B2(ABS)=blood- stain-INV+IRRI banana-leaf
 'and you are going to get stained by the resin of
 the banana leaf.'
- b. tate:jatzetüw tükü
 ta= te:ja-tzet -ü -w tük
 B1(ABS)=tile- smash-INV-COMI house
 'The house's tile smashed me.'
- c. ʔiwinʔe:pnaxpexük ʔipuʔpu jaʔmej
 ʔi= win-ʔe:p-nax-pe =xü=k ʔi= puʔpu
 A3(ERG)=eye-see -DIR-INCI.T=EV=AN A3(PSR)=belly
 '(My father's) eyes are able to see his belly.'
 {C19/64/72}

- d. tankü?ka?tza:m mo:kü, yowamo:kü ?i?itno
 tan= kü?- ka?tz-am mo:k yowa+mo:k
 A1 (ERG)=hand-cut -IRRI corn ear_of_corn
- ?i= ?it -nü -i
 A3 (ABS)=exist-already-INCD
 'I am going to clear out the corn, there are ears
 of corn already.' (Lit. 'My hand is going to cut
 the corn') {C6/54/2}

Up to now, all the illustrated examples of incorporation of a PSM of a theme include a body-part term. Body-part terms constitute the majority of incorporable nouns within this type of compound. Also attested are nouns referring to parts of wholes and the kinship term ?unak 'child'. Some of these N+V compounds are given in (136).

(136) a. Incorporation of Body Parts:

<u>yo?k-tzum</u> neck-tie up	'hang somebody's neck'
<u>yo?k-xotz</u> neck-tie up	'tie around somebody's neck'
<u>ko?pak-wop</u> head-hit	'hit somebody's head'
<u>natzkü?-tzuk</u> back_of_neck-cut	'cut somebody's neck'
<u>pu?pu-ja:x?</u> belly-rub	'rub somebody's belly'
<u>kü?-puj</u> hand-wash	'wash somebody's hand'
<u>wintoj-yu:k</u> face-hide	'cover somebody's face'

to:tz-tzuʔtz 'bite somebody's tongue'
tongue-bite

koʔpak-kox 'hit somebody's head'
head-hit

küʔx-machiʔt 'untie somebody's feet'
foot-release

yoʔk-yo:k 'butcher an animal'
throat-butcher

ʔaw-pa:t 'kiss'
mouth-find

b. Incorporation of Parts of Wholes

küpi-kaʔtz 'cut wood from a tree'
wood-cut

pak-mo:t 'grind the seeds of a
seed-grind vegetable (e.g. squash)'

nü:-tun 'prepare soup out of
water-make something (e.g. fish)'

c. Incorporation of Kinship Terms

ʔunak-tze:n 'baptize somebody's son'
child-baptize

ʔunak-ʔe:p 'take care of somebody's
child-see son'

ʔunak-tzoyʔi:yʔ 'cure somebody's son'
child-cure

2.2.3.2.1 Two Additional IP Counterparts of the EP with Agentive Ambitransitive Verbs

In Olutec, not all transitive EPC's with an incorporated PSM of the theme can be paraphrased by an IP counterpart where the PSR+PSM nominal phrase stands as a direct complement of the clause, i.e., a construction of the type illustrated in (129). There are two other possible IP (or analytic) counterparts. In both of them the semantic PSR is coded in two slots within the clause. The examination of these two additional IPC's clearly show that a derivational analysis of Type II NI construction cannot be sustained.

First, consider the IPC shown in (137a) where the affected PSR is expressed on the verb by the first-person absolutive tan=, and also on the locative nominal phrase by the first-person possessor tan=. The PSM within the locative nominal phrase specifies the particular region where the PSR is being affected. In contrast, in the EPC shown in (137b), the PSM appears incorporated, and the semantic PSR is marked only once in the clause by the first-person absolutive on the verb. Thus, this type of NI does not fit within the characterization of Type II NI which presupposes that the incorporation of a PSM holding a core argument relation is what allows a non-core PSR to occupy the vacated slot. In

the analytic counterpart in (137a), the PSM is part of an oblique phrase. Thus, the process of incorporation does not vacate a core argument slot to be filled. In addition, the incorporation of the PSM of the locative phrase in (137b) does not change the way the semantic PSR (or affected participant) is marked on the verb. In both (137a) and (137b) the PSR is signaled by the first-person absolutive on the verb.¹⁶

- (137) a. IP with a Possessed Locative NP
 tantewajemak tantüpij wü:ni?k
 tan= tewa -jem=ak tan= tüp -i -j
 A1(PSR)=buttock-LOC=AN A1(ABS)=sting-INCD-INVD.I

wü:nik

wasp

'The wasps are stinging me on my buttocks.'

{C22/165}

- b. EP by NI of the PSM of the Locative NP
 wünikak tatewatüpüw
 wünik=ak ta= tewa- tüp -ü -w
 wasp =AN B1(ABS)=buttock-sting-INV-COMI
 'The wasps are stinging me on the buttocks.'

Second, consider the ditransitive construction in (138a). The bivalent agentive verb to?kxkot 'bend' suffixed by the applicative -a?x forms a trivalent stem. The applicative allows the extra thematic malefactive to be coded as a third core argument of the clause. In the ditransitive clause in (138a), the agent is expressed by the nominal ta?nüku?ku 'cramp,' the theme (the secondary object)

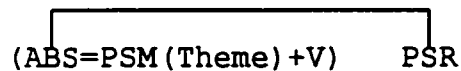
by the possessed nominal phrase tankü?xta 'my foot,' and the malefactive (the primary object) by the first-person absolutive proclitic ta= on the verb. Note that the malefactive is coreferential with the PSR of the theme, i.e., the reference of both of them is first-person.¹⁷ In contrast, the EP counterpart in (138b) is a monotransitive clause. The agent is expressed by the nominal ta?nüku?ku 'cramp,' whereas the semantic PSR of the theme is expressed by the first-person absolutive on the verb. The PSM of the theme, the nominal kü?x 'foot,' appears incorporated in the verb. Note that the verb compound (PSM+V) does not carry the applicative -a?x which is suffixed to the verb in the analytic counterpart, (138a). Thus, the construction in (138b) fits with the definition of Type II NI since the incorporation of a PSM holding a core argument relation is what allows a non-core PSR to occupy the vacated slot. The semantic notion of affectedness of the PSR within the analytic clause is retained in the EP counterpart. However whereas in (138a) the affected participant is coded by the extra thematic malefactive added by applicative ?ax, in (138b) it is coded by the semantic PSR of the theme marked as direct complement of the N+V compound.

- (138) a. IP with a Ditransitive Verb
 taʔnukuʔku tatoʔkxkotaʔxüp tanküʔxta
 taʔnük+kuʔku ta= toʔkx+kot-aʔx -ü -pa
 cramp B1 (ABS)=bend -APPL1-INV-INC.I

 tan= küʔx+ta
 A1 (PSR)=foot
 'The cramp is bending my foot.' {C18/54/61}
- b. EP by NI of the PSM of the Theme
 taʔnukuʔku taküʔxtoʔkxkotüp
 taʔnük+kuʔku ta= küʔx-toʔkx+kot-ü -pa
 cramp B1 (ABS)=foot-bend -INV-INC.I
 'The cramp is bending me on the foot.'

To sum up, the type of compound where the semantic PSM incorporates to a transitive verb root is an EPC. The outcome is a transitive N+V compound. In the EPC the semantic PSR is coded as a clausal core argument. When the incorporated PSM refers to the theme, the PSR is the argument cross-referenced by the absolutive on the verb in inverse, reflexive, reciprocal, and passive constructions. This type of NI is sketched in (140).¹⁸

- (139) EPC by incorporation of PSM(Theme)



There are three different IPC's which may paraphrase the type of EPC sketched in (140). The three analytic patterns are given in (140a-c). In the first pattern, shown in (140a), the possessed nominal phrase is the second core argument of the clause. This is confirmed by the fact that

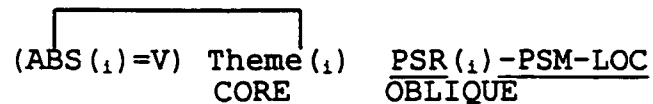
the PSM is cross-referenced by the absolutive in the inverse pattern. The PSR is a direct dependent of the PSM within this nominal phrase. An example of this pattern is (129) above.

(140) a. IPC: Pattern 1



The second IP pattern is sketched in (140b). The possessed nominal phrase is in a locative phrase functioning as an oblique argument. The PSR of the locative phrase is coreferential with the theme, which is the participant cross-referenced by the absolutive on the verb. An example of this pattern is (137a).

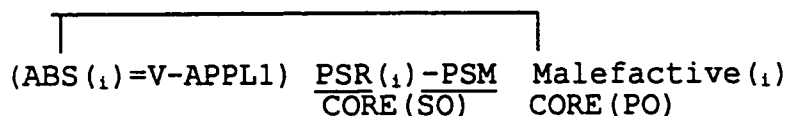
(140) b. IPC: Pattern 2



In the third pattern, shown in (140c), the possessed nominal phrase is the secondary object of the clause (Dryer 1986). The PSR of the secondary object is coreferential with the malefactive participant. The malefactive is the primary object of the clause. It is cross-referenced by the

absolute on the verb. An example of this pattern is (138a).

(140) c. IPC: Pattern 3



EPC's by NI belong to Type II NI in Mithun's typology. A derivational account à la Relational Grammar (i.e., a possessor ascension analysis) can predict the synthetic outcome in (140) from the analytic pattern given in (140a). That is, the core argument slot vacated by the incorporated PSM is occupied by the PSR in the synthetic form.¹⁹ On the other hand, the possessor ascension analysis does not hold if one wants to explain the synthetic pattern in (140) as derived from the analytic pattern in either (140b) or (140c). In (140b), the PSM is an oblique argument. The incorporation of an oblique does not vacate a core slot to be filled by the PSR. In addition, the absolute on the verb in both (140) and (140b) refers to the same participant which makes the ascension analysis unnecessary. Similarly, in (140c) the PSR+PSM nominal phrase is a secondary object of the clause. Secondary objects are considered "non-terms" or "chômeurs" in Relational Grammar (cf. Aissen 1987). The PSR, which is a dependent of a chômeur, should not "ascend"

to a term status. Thus, an analysis by which the NI structure in (140) is derived by "possessor ascension" out of the analytic construction in (140c) is also unsupported.

2.2.3.3 EP by NI with Nonagentive Bivalent Verbs

Olutec exhibits two types of bivalent verbs: a) agentive and b) nonagentive. The main features which distinguish each of these types were discussed in §2.1.3 above. Bivalent agentive verbs are canonical transitives. Nonagentive bivalent verbs are "extended intransitives." Unlike agentive bivalent verbs, nonagentive bivalent verbs cannot occur in reflexive, reciprocal, or passive constructions. Nonagentive bivalent verbs select for a semantic theme as a first argument, and a location or experiencer as a second argument. None of these arguments be can cross-referenced by an ergative proclitic on the verb. Similar to agentive transitive verbs, nonagentive verbs can participate in the direct/inverse alternation. In the direct construction, the theme is the only core argument of the clause, whereas the location is marked as an oblique argument. The clause with the nonagentive bivalent verb tükʔi:yʔ 'enter' in (141) follows the direct pattern. The first-person absolutive ta= on the verb signals the theme.

The noun tük 'house' suffixed by the postposition -pi 'in' expresses the location.

- (141) porke ʔasta tatüki:pa tükpi
 porke ʔasta ta= tükʔi:yʔ-pa tük -pi
 because until B1(ABS)=enter -INCI.I house-LÖC
 'Because even I used to go into the house.'
 {rp2/129}

An inverse construction with the same verb root is illustrated in (142). Note that the verb root is derived by the applicative küj-. The applicative allows the extra-thematic locative to occupy a second core argument position. Thus, both the theme and the locative are core arguments in the clause following the inverse pattern. The verb stem küjtükʔi:yʔ bears the inverse suffix -y. The first argument (the theme) is expressed by the noun po:mo 'bottle,' whereas the second argument (the location) is marked by the third-person absolutive on the verb. The clause follows the inverse pattern because the theme, which is the most prominent element in the argument hierarchy (theme>location), does not correspond with the most salient participant of the clause (animate>inanimate). The inverse pattern followed by küjtükʔi:yʔ and other nonagentive bivalent verbs was sketched in (67) above.

- (142) jeʔ ʔu:ra ʔiküjtükiyiy po:mo
 jeʔ ʔu:ra ʔi= küj- tükʔi:yʔ-i -y
 that hour A3(ABS)=APPL2-enter -COMD-INVD.C
- po:mo
 bottle
 'That is when (the dog) got stuck into the
 bottle.' (Lit. 'The bottle went into it.')
- {id2/70}

The construction in which the semantic theme incorporates to a nonagentive bivalent verb was discussed in 2.1.3. N+V compounds including a theme and a nonagentive verb follow the inverse pattern. Nonagentive bivalent verbs such as tükʔi:yʔ may also incorporate the PSM of the locative argument. As an illustration compare the analytic construction in (143a) with the NI counterpart in (143b). In the IPC, (143a), the possessed participant is overtly marked as an oblique locative phrase. The clause follows a direct pattern.

- (143) a. IP with a Nonagentive Bivalent Verb.
 puʔtzüʔk tüküyu tanwinmü
 puʔtzük ø= tükʔi:yʔ-u tan= win-mü
 garbage B3(ABS)=enter -COMI A1(PSR)=eye-LOC
 'Garbage came into my eye.'

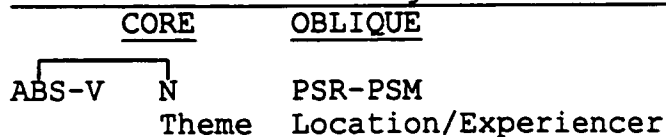
In the EP counterpart the PSM of the locative phrase forms a compound with the verb root. In contrast to the IPC in (143a), which only has one core argument, the EPC in (143b) has two: the theme, expressed by the noun puʔtzük 'garbage,' and the semantic PSR of the experiencer/location, expressed

by the first-person absolutive proclitic on the verb. The incorporated semantic PSM of the location, the noun win 'eye,' is syntactically inert. The suffix -ü indicates that the clause follows an inverse pattern.

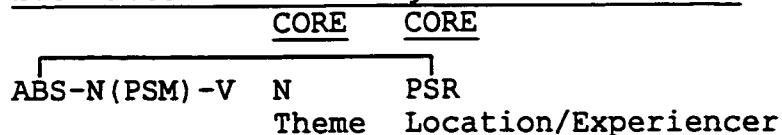
- (143) b. EP with a Nonagentive Bivalent Verb
 puʔtzüʔk tawintükiyüw
 puʔtzük ta= win-tükʔi:yʔ-ü -w
 garbage Bl (ABS)=eye-enter -INV-COMI
 'Garbage came into my eye.' {rp3/327}

Note that whereas in (142) the verb root requires the applicative küj- to bring the extrathematic locative phrase into a core argument position, in (143b) the PSM+V compound does not bear the applicative prefix. The sole incorporation of the PSM of the locative yields a verb stem which takes two core arguments. The IPC and EPC patterns with nonagentive bivalent verbs are sketched below.

- (144) a. IPC Pattern with Nonagentive Bivalent V



- b. EPC Pattern with Nonagentive Bivalent V



The verb stem in (143b) takes an inverse suffix since the highest-ranking participant in the argument hierarchy (the theme) does not coincide with the highest-ranking participant in the saliency hierarchy (the first-person). This pattern is schematically represented in (145).

(145)	<u>Inverse Pattern with Nonagentive Bivalent Verbs</u>		
<u>Argument</u> <u>Hierarchy:</u>	Theme	>	<u>PSR of the</u> <u>Experiencer/Locat.</u>
<u>Saliency</u> <u>Hierarchy:</u>	<u>High-ranking</u> <u>Participant</u>	>	Low-ranking Participant

Other N+V compounds with nonagentive bivalent verbs within the corpus are listed in (146). Note that body-part terms are the only nouns which participate in this type of compound.

- | | | | |
|-------|----|-----------------------------------|---|
| (146) | a. | <u>küx-pük</u>
body-hurt | 'somebody's body hurts' |
| | b. | <u>koʔpak-pük</u>
head-hurt | 'somebody's head hurts' |
| | c. | <u>jot-pük</u>
stomach-hurt | 'somebody's stomach hurts' |
| | d. | <u>küʔx-toy</u>
foot-burn | 'burn somebody's foot' |
| | e. | <u>koʔpak-pitzüm</u>
head-exit | 'come out something from somebody's head' |
| | f. | <u>küʔ-mi:nʔ</u>
hand-come | 'something comes to somebody's hand' |

- g. küʔ-jo:m 'somebody's hands sweat'
hand-sweat

In sum, EPC's with nonagentive bivalent verbs are clear cases in which the target of incorporation is a locative PSM. In the IPC the semantic theme is a core argument whereas the semantic location is an oblique argument. In contrast, in the EPC both the theme and the PSR of the locative are core arguments. Thus, this type of incorporation does not fit entirely with Mithun's characterization of Type II NI (nor with the derivational account à la Relational Grammar) which predicts that the same syntactic relation held by the free-standing PSM in the IPC would be held by its PSR in the EPC. In the IPC the PSM is an oblique argument, in contrast, in the EPC, the PSR is not an oblique but a core argument.

As far as I know, the literature on EP has not discussed any other language in which the target of incorporation is the PSM of a locative argument of a nonagentive bivalent verb. The type of NI illustrated in (143b) increases the syntactic verb valence contrary to Type I NI which reduces it, and Type II NI which does not change it.

2.2.3.4 EP by NI with Trivalent Verbs

Compounds formed by the trivalent verb mo:yʔ 'give' and an incorporated noun referring to a semantic theme were discussed in §2.1.2 and §2.2.1. The resulting N(theme)+mo:yʔ compounds are monotransitive verbs. Clauses with these compounds have the agent as the first core argument and the recipient as the second one. The incorporated theme is syntactically inert.

The verb mo:yʔ may incorporate the semantic PSM of the recipient. The outcome is an EPC which does not fit with the characterization of Type II NI. The PSM+mo:yʔ compound is a ditransitive verb which takes three core arguments: an agent, a theme and a recipient.

(147)	<u>EP by NI of PSM of the Recipient</u>															
	<table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 0 10px;"><u>CORE</u></td> <td style="padding: 0 10px;"><u>CORE</u></td> <td style="padding: 0 10px;"><u>CORE</u></td> </tr> <tr> <td style="padding: 0 10px;">N(PSM)-<u>mo:yʔ</u></td> <td style="padding: 0 10px;">N</td> <td style="padding: 0 10px;">SO</td> </tr> <tr> <td></td> <td style="padding: 0 10px;">Agent</td> <td style="padding: 0 10px;">Theme</td> </tr> <tr> <td></td> <td></td> <td style="padding: 0 10px;">PO</td> </tr> <tr> <td></td> <td></td> <td style="padding: 0 10px;">Recipient</td> </tr> </table>	<u>CORE</u>	<u>CORE</u>	<u>CORE</u>	N(PSM)- <u>mo:yʔ</u>	N	SO		Agent	Theme			PO			Recipient
<u>CORE</u>	<u>CORE</u>	<u>CORE</u>														
N(PSM)- <u>mo:yʔ</u>	N	SO														
	Agent	Theme														
		PO														
		Recipient														

As an illustration consider (148). In this clause, the agent is marked by the third-person ergative proclitic on the verb, the theme is expressed by the phrase ja:tuk tuji 'another shot,' whereas the recipient is expressed by the noun yoʔjwa 'man'. The incorporated PSM of the recipient, the noun winpak 'forehead,' is syntactically inert.

- (148) EP by NI of the PSM of the Recipient
 ?iwimpakmoyuk ja:tu?k tuji yo?jwa
 ?i= winpak- mo:y? -u =k ja:tuk tuji yo?jwa
 A3(ERG)=forehead-give -COMI=AN another shot man
 'He shot the man again in the forehead.' (Lit. 'He
 forehead-gave the man another shot.') {AA/ND/638}

The type of clause depicted in (149) stands for the EPC counterpart of the one sketched in (147). The incorporated noun referring to the PSM in (147) corresponds to the noun overtly marked as an oblique arguments in (149). Note that the PSR of the locative phrase is coreferential with the recipient, which functions as the primary object of the clause.

- (149) IPC with the PSM of the Recipient as Oblique
- | | | | | |
|-------|-------|-------|-------------------|------------------------------------|
| | CORE | CORE | CORE | OBLIQUE |
| mo:y? | N | SO | PO ₍₁₎ | PSR ₍₁₎ -PSM-LOC.POSTP. |
| | Agent | Theme | Recipient | Locative |

As an illustration of an IPC consider (150). Note that the body-part term winpak 'forehead' is possessed and appears overtly marked as an oblique argument by the postposition -jem. The PSR of the noun winpak is coreferential with the recipient of the clause, the noun yo?jwa 'man'.

- (150) IP with the PSM in a Locative Phrase
 ?imoyuk ja:tu?k tuji yo?jwa ?iwimpakjem
 ?i= mo:y?-u =k ja:tuk tuji yo?jwa
 A3(ERG)=give -COMI=AN another shot man
- ?i= winpak -jem
 A3(PSR)=forehead-LOC
 'He shot the man again in the forehead.' (Lit. 'He gave the man another shot on his forehead.')

Therefore, the characterization of Type II NI does not apply to the type of NI sketched in (147) for two reasons: First, following the definition of Type II NI one would expect that the incorporation of the PSM vacates a core argument slot to be filled. However, the incorporation of the PSM leaves an oblique argument slot which is not filled by any other participant in the EP counterpart. Second, there is not "advancement" of the PSR since the verb stem in both the analytic and the synthetic constructions take the same three core arguments.

An additional pair which contrasts an IPC vs. an EPC with the verb mo:y? is given in (151).

- (151) a. IPC
 taxmo?a?n wope mintewajem
 tax= mo:y?-a?n wop+e min= tewa -jem
 C1(LOCAL)=give -IRRD hit A2(PSR)=buttocks-LOC
 'I am going to hit you on your buttocks.' (Lit. 'I am going to give you a hit on your buttocks.')
- {vend/174}

- b. EPC
 taxtewamoʔaʔn wope
 tax= tewa- mo:yʔ-aʔn wop+e
 C1 (LOCAL)=buttocks-give -IRR hit
 'I am going to hit you on your buttocks.' (Lit. 'I
 am going to buttocks-give you a hit.')

A very similar pattern is attested with the verb tu:tʔ 'put'. This verb selects for three semantic arguments: an agent, a theme, and a location. Clauses with the underived verb tu:tʔ are monotransitives, that is, only the agent and the theme are core arguments. The location is overtly marked by a postposition as an oblique argument. Two of these postpositions are -pi, as in (152a), and -jem, as in (152b).

- (152) a. na:xpixü tatu:ti ʔiposi:yo
 na:x -pi =xü ta= tu:tʔ-i ʔi= posi:yo
 ground-LOC=EV C3 (ERG)=put -COMD A3 (PSR)=cup
 'He put his cup on the ground.' {rsch2/45}
- b. xtu:ti te:niʔk jem kuylimuʔn ʔawküʔxjemü
 tax= tu:tʔ-i te:nik jeʔ+mü kuy -limun
 C1 (ERG)=put -COMD ladder there tree-lime
- ʔawküʔx-jem
 branch -LOC
 'I put the ladder there, on the branch of the lime tree.' {vg/685}

Tu:tʔ may be suffixed with the applicative -ja:yʔ (-ay, -aʔx, -aʔ) which brings into core argument status the extra-thematic locative. Note that the locative phrases in (152a,b) are overtly marked with a postposition. In contrast, the same semantic participant is unflagged when

the verb is suffixed with the applicative -ja:y?, as shown in (153a). Hence, the clauses in (153) are ditransitives. The added locative functions as the primary object of the clause, whereas the theme functions as the secondary object.

- (153) a. je?k majaw tatu:tayik je?k yo?jwa tu?k ko?pa?n
 je? =k majaw ta= tu:t?-ay -i =k je? =k
 that=AN woman C3(ERG)=put -APPL1-COMD=AN that=AN
 yo?jwa tuk ko?pan
 man one hat
 'That woman put the hat on that man.' {rsch2/77}
- b. tantu:taypek joko
 tan= tu:t?-ay -pe =k joko
 A1(ERG)=put -APPL1-INCI.T=AN smoke
 'I smoke (the mosquitoes) out.' (Lit. 'I put smoke on the mosquitoes).' {mil/459}
- c. tantu?ta?anampo?k je? tzu?chi
 tan= tu:t?-a? -an =?ampok je? tzu?chi
 A1(ERG)=put -APPL1-IRR=also that meat
 'I am going to add meat also (into the sauce).'
 {mi2/49}

The fact that the locative cross-references the absolutive on the verb in inverse (154a), reflexive (154b), and passive (154c) constructions confirms its primary object status.

- (154) a. ?itu:ta?xiyak tu?k ko?pa?n
 ?i= tu:t?-a?x -i -y =ak tuk ko?pan
 A3(ABS)=put -APPL1-COMD-INVD.C=AN one hat
 '(She) put one hat (on him).' {rsch2/25}
- b. tanitu:ta?xüw kü?kuma
 ta= ni- tu:t?-a?x -ü -w kü?kuma
 B1(ABS)=RFLX-put -APPL1-INV-COMI ring
 'I put on the ring.' {DICT}

- c. $\text{?ichipi?n yaktu:ta?xüp}$
 ?i= chipi?n
 A3(PSR)=tomato
- $\emptyset=$ yak -tu:t?-a?x -ü -pa
 $\text{B3(ABS)=PASS-put -APPL1-INV-INCI.I}$
 '[...] tomato is being put (into the sauce).'
 {rspf2/250}

The derived verb tu:t?-ja:y? can form NI compounds which include an incorporated PSM of the semantic location. Clauses with this type of compound are ditransitive EPC with three core arguments: an agent, a theme (SO), and a PSR of the location (PO). The incorporated PSM is syntactically inert.

- (155)

<u>INERT</u>	<u>CORE</u>	<u>CORE</u>	<u>CORE</u>
<u>N(PSM)</u> -V-APPL1	<u>N</u>	<u>SO</u>	<u>PO(PSR)</u>
	Agent	Theme	Location

Some examples are given in (156a-c).

- (156) EP by NI of the PSM of the Location
- a. tantewatu:tayuk ?inyeksio?n xi:muk
 $\text{tan= tewa- tu:t?-ay -u =k ?inyeksion}$
 $\text{A1(ERG)=buttocks-put -APPL1-COM=ANIM injection}$
- xi:mu=k
 Simon=AN
 'I put an injection in Simon's buttocks.' (Lit. 'I buttock-put an injection in Simon.')
- b. tanipu?putu:ta?xüw gasoli:na
 $\text{ta= ni- pu?pu-tu:t?-a?x -ü -w gasoli:na}$
 $\text{B1(ABS)=RFLX-belly-put -APPL1-INV-COMI gasoline}$
 'I put some gasoline on my belly.' {DICT}

- c. sa:rakü taküxtu:ta?xüwa? min?una?k
 sa:rak ta= küx- tu:t?-a?x -ü -w =ja?
 Sara B1 (ABS)=back-put -APPL1-INV-COMI=3AN

 min= ?unak
 A2 (PSR)=son
 'Sara put your son on my back.' {PA}

In the IPC sketched in (157), the semantic location is expressed in two slots within the clause: a) as a primary object (PO), and b) as a PSR of an oblique nominal phrase marked by a locative postposition. The index (i), following the PO and the PSR of the locative, indicates that these two participants are coreferential.

(157) IPC: The Possessed NP is Oblique

V-APPL1	<u>CORE</u> N	<u>CORE</u> SO	<u>CORE</u> PO _i	<u>OBLIQUE</u> PSR _i -PSM-LOC.POSTP
	Agent	Theme	Location	Location

As an illustration consider (158) which is the IP counterpart of (156a). The PO xi:mu 'Simon' in (158) is coreferential with the third-person PSR of the extra-thematic locative phrase.

- (158) tan= tu:t?-ay -u =k ?inyeksyon xi:mu=k
 A1 (ERG)=put -APPL1-COM=AN injection Simon=AN

 ?i= tewa -jem
 A3 (PSR)=buttocks-LOC
 'I put an injection in Simon's buttocks.'

Therefore, the feature which defines Type II NI, i.e., "advancement" of a dependent of a phrase to a dependent of a verb ("manipulation of case"), does not apply to the type of NI illustrated in (156a-c). The incorporation of the PSM of the locative does not vacate a core argument slot, which is then filled by something else. The verb stem in both the analytic and the synthetic constructions selects for the same three core arguments. The semantic PSR is marked twice in the IPC and only once in the EPC.

2.2.3.5 Summary of EP by NI

The EPC by NI occurs with all four types of Olutec verb stems: monovalent, bivalent agentive (transitive), nonagentive bivalent (extended intransitive), and trivalent (ditransitive). The target of incorporation which gives an EP reading is, in the majority of the cases, the most affected participant of the clause. Semantic themes incorporate into monovalent and agentive bivalent verb stems; whereas semantic locations/experiencers/goals/recipients incorporate into nonagentive and trivalent verb stems. Examples such as 'I hand-hit you' where the noun 'hand' refers to the PSM of the first-person agent has not been attested in the corpus. However there are a few cases

in which the target of incorporation is the part-of-a-whole acting as agent of the clause, e.g. 'the plant thorn-prick me'. This type of EPC is attested only with nouns referring to parts-of-wholes. No other case has been reported in the literature of EP in which the incorporated element is the PSM of an agent. This type of data falsifies one of the main hypotheses of syntactic theories dealing with NI which claims that this type of incorporation is ruled out in natural languages (Baker 1988a, 1996).

Body-part terms are the most frequent targets of incorporation followed by parts-of-wholes and only a few kinship terms. The fact that one cannot predict which combinations of nouns and verbs are well-formed supports the view of NI as a lexical process.

EP by NI with monovalent verbs fits into Mithun's definition of Type II NI. In the IPC, the PSR is a dependent of the only core argument of the clause, whereas in the EPC the PSR is treated as a clausal argument.

The same type of analysis does not hold for the various EPC's which include non-monovalent verbs. There are two morphosyntactic facts which invalidate the "advancement" analysis for the EPC with non-monovalent verbs. First, the "advancement" analysis presupposes that the incorporated PSM in the EPC occupies a core argument slot in its

corresponding IPC. However, in the IPC with non-monovalent verbs, the PSM is expressed by an oblique locative phrase. And second, the "advancement" analysis takes for granted that the PSR advances to corehood in the EPC. This assumption is unsupported since the PSR is already a core argument in its corresponding IP counterpart.

2.3 Type III NI

Type III NI is defined by Mithun as the use of incorporation for the purpose of backgrounding known or incidental information within portions of discourse (Mithun 1984:859). That is, a noun referring to an entity which has been established in a previous fragment of discourse can be expressed as a qualifier of the verb in an N+V construction.

This type of NI is similar in form to Types I and II, but subtly different in function. While all types result in a backgrounding of the IN, Type I serves to reduce its saliency within the V, Type II within the clause, and Type III within a particular portion of the discourse. (Mithun 1984:862)

All languages which background information via NI are head-marking (Nichols 1986) and polysynthetic. Another feature of these languages, pointed out first by Mithun, is that the position of the constituents within the clause depends on

their relevance to the discourse, i.e., these are flexible word order languages.

Olutec has all the relevant features of a polysynthetic and head-marking language. The core arguments of the clause can be determined by the person, inverse and applicative morphology attached to the verb; the language has flexible word order; and NI is used for backgrounding known information within discourse.

In the following fragment of text, the participant referring to the 'iguana' is introduced by an independent noun. The same noun appears incorporated in its fourth mention, when it stands for a nonreferential entity in discourse. In (159c) there are two foregrounded entities: the man and his lover. The noun to:ki 'iguana,' which is established information, is necessary only as a qualifier of the generic verb kep 'look for'. The compound N+V appears as a nominalization.

(159) a. ?ituxü?k tu?k nüxpaxü?k takepe to:ki
 ø= ?it -u =xü=k tuk
 B3 (ABS)=exist-COMI=EV=AN one

nüx-pa =xü=k ta= kep -e to:ki
 go -INCI.I=EV=AN C3 (ERG)=look_for-INCD iguana
 'It is said that there was one (man) who goes to
 look for iguanas'

b. 'and he finds them every time he goes to look for them.'

- c. jeʔk to:kikepaʔnaʔawü ʔitüpxük ja:tuʔk majaw
 jeʔ =k to:ki- kep -pa+ʔ-naʔw
 that=AN iguana-look_for-NF -AUGM
- ø= ʔit -ü -pa =xü=k ja:+tuk majaw
 B3(ABS)=exist-INV-INCI.I=EV=AN another woman
 'That iguana-hunter has a lover.' {iguana/1-5}

The next fragment comes from a conversation between two speakers, identified as AA and LM. They are discussing the fact that their town has been infested with mosquitoes and the way these insects bother the town's inhabitants at night when they are trying to sleep. AA tells LM that the noise that the mosquitoes produce is as if a loud song is being sung near one's ear. At the first mention, the word for 'ear' is independent. In his intervention in (160c), LM agrees with AA's remark using a parallel structure which includes the same information provided in the previous clause. Note, however, that LM uses an incorporated construction in which the old information is packaged within the verb.

- (160) a. AA: 'It is just as if that person is receiving a serenade for his birthday'
- b. jemak ʔiʔüwi tuʔk ʔita:tzükpaʔaʔw
 jeʔ+mü=ak ʔi= ʔüw -i tuk
 there =AN A3(ABS)=sing-INCD one
- ʔi= ta:tzük-paʔaw
 A3(PSR)=ear -edge
 '(The mosquitoes) sing close to somebody's ear.'
 {mil/473}

- c. minta:tzük?üwa?xej
 min= ta:tzük-?üw -a?x -e -j
 A2 (ABS)=ear -sing-APPL1-INCD-INVD.I
 LM: 'They sing to your ear.' {mil/474}

The next passage comes from the story of a hungry tramp who obtains food from the people of a village, making them believe that he is a king. The hungry tramp always gets whatever he wants to eat for free. Once the people find out that the person they have fed is an impostor, they throw him out of the town. The narrator uses the independent noun for 'food' when it is first introduced into the discourse, (161b). In later mentions, when the noun for 'food' refers to established information, it gets incorporated, as in (161d, f, h).

- (161) a. 'A day came when he said "I want to eat". He was not charged.'
- b. ?iyaktu:tpowixüko kaya?n
 ?i= yak- tu:t?-pow -i =xü=koj kay+an
 A3 (ABS)=PASS-put -REPET-COMD=EV=just food
 'He was given food again.'
- c. 'He ate a lot. As much as he wanted [...]'
- d. me:ru kayantumpa?, kayanto:kpa? je? jaytzü?
 me:ru kay+an-tun-pa+? kay+an-to:k-pa+? je?
 downright food- do -NF food- sell-NF that
 jaytzü?
 old_lady
 '(Everybody came.) The one who prepared food
 (cook) and that old lady who is a food-seller.'
- e. 'They told him:

- f. jumü tankayanto:ke:tü?s
 jumü tan= kay+an-to:k-e -:t -ütz
 where A1 (ABS)=food- sell-INCD-PL.SAP-EXCL
 "(Don't come back again) where we are selling
 food."
- g. "Because you are not a king, you are a tramp, you
 are a lazy tramp"
- h. kayankepa?
kay+an-kep -pa+?
food- look_for-NF
 "one who looks for food." {rs3/62-83}

In the passage below, the speaker describes a scene where the protagonist is looking for his pet (a frog) inside the hollow of a tree. When first mentioned, the noun for 'hollow' is a free-standing noun. Once established as known information, it appears incorporated. Note that the incorporated noun in both (162c) and (162d) is the semantic PSM of the argument functioning as primary object of the clause. Thus, (162c-d) are simultaneously cases of Type II NI at the clause level and Type III NI at the discourse level.

- (162) a. kuywimpik ?i?iti chu:chuna?k
 kuy -win-pi =k ?i= ?it -i chu:chu-nak
 tree-top-LOC=AN A3 (ABS)=exist-INCD small -DIM
 'The boy is on top of the tree.'
- b. ?itüpak kü:kü
 ø= ?it -ü -pa =k kü:k
 B3 (ABS)=have-INV-INCI.I=AN hollow
 'It has a hollow.'

- c. jeʔk chu:chunaʔk takü:kya:xiyi
 jeʔ =k chu:chu-nak
 that=AN small -DIM
 ta= kü:k- ya:xʔ-ʔi:yʔ -i
 C3(ERG)=hollow-shout-inside-INCD
 'The kid is crying into the hollow.'
- d. takü:kya:xiyi chu:chunaʔk kuyü
 ta= kü:k- ya:xʔ-ʔi:yʔ -i chu:chu-nak kuy
 C3(ERG)=hollow-shout-inside-COMD small -DIM tree
 'The kid is crying into the hollow of the tree.'
 {id2/146-149}

One of the functions of Type III NI is to maintain the old information in the arena of discourse. There are cases in which the incorporated element is a noun which is semantically very generic. The generic noun, when incorporated, stands for a more specific noun that was previously introduced. For instance, the word for 'house,' when incorporated, may function as an anaphoric device substituting more specific nouns that were presented earlier such as 'school' or 'kidergarten'.

- (163) a. na:kxej ki:nder ʔitzapüʔki mü:t jamaj ʔeskwe:la
 na:kxej ki:nder ʔi= tzap+püʔk-i
 when kindergarten A3(ABS)=build_up -COMD
mü:t jamaj ʔeskwe:la
 and that school
 'When the kindergarden and that school were built up.'
- b. 'The school was built up. The Zapotec came.'

- c. te:kutük ?iminküxi ?itüktunküxi jem
 te:ku -tük ?i= mi:n?-küx-i
 Zapotec-PL A3(ABS)=come -PL3-COMD
- ?i= tük- tun-küx-i je?+mü
 A3(ABS)=house-do -PL3-COMD there
 'The Zapotec came and build (the school) there.'
 {rp3/160-65}

In Olutec, Type III NI is more common with "light" verbs such as 'do,' 'put,' 'exist,' 'look for,' 'eat,' 'sell,' 'give,' etc., than with specific verbs such as 'murder,' 'cure,' 'bewitch,' etc. Mithun (1984, 1986a) has reported the same tendency in Mohawk, Cayuga, Nahuatl, Mundurukú and other languages with Type III NI. The explanation offered is that "light" or semantically general verbs take much of their meaning from their arguments and so they require a noun to make the meaning of the verb explicit and to keep the referent constant in discourse. The referent of a participant in an event or state is more difficult to track in clauses with light verbs which do not specify which of the participants introduced previously in the discourse is being referred to. Hence, when one of the participants of an event or state coded by a light verb is discursively unimportant, the speaker still opts for expressing it in order to avoid referent-tracking difficulties.

Mithun (1984, 1986a) has argued that Type III NI is one of the last linguistics skills acquired by children and one of the first to disappear in language death:

The ability to use incorporation for backgrounding entities in discourse is one of the most salient differences between especially admired speakers of incorporating languages and average or marginal speakers. (Mithun 1986a:382)

This is confirmed also for Olutec. Type III NI is more frequent in the speech of the most conservative speakers who can create new combinations on the basis of discourse needs. I have not found cases of Type III NI in the narratives and conversations produced by Olutec semi-speakers.

2.4 Type IV NI

Type IV NI is also known as classificatory noun incorporation and has been discussed by Mithun (1984, 1986a, 1994), Rosen (1989), Baker (1995, 1996), among others.

Mithun gives the following characterization of Type IV:

A relatively general N stem is incorporated to narrow the scope of the V, as in Type II; but the compound stem can be accompanied by a more specific external NP which identifies the argument implied by the IN. Once the argument has been identified, the general, incorporable N stem is sufficient to qualify V's involving this argument in subsequent discourse. Since only general N's are incorporated for this purpose, a classificatory system often results. (Mithun 1984:863)

Under Type IV NI, the transitivity of the incorporating verb is left unaffected. Type IV NI compounds formed by a transitive verb plus an incorporated noun are transitive. In contrast, Type I NI compounds formed by a transitive verb plus an incorporated noun are intransitive. On the basis of this, Rosen (1989) has argued that whereas the incorporated N in Type I NI "satisfies" one of the verbal arguments, in Type IV NI the incorporated N only puts selectional restrictions on the free-standing noun functioning as direct object. The semantic relation which links the incorporated noun and the external noun (or noun phrase) expressing the theme is very similar to the semantic relation between a classifier and a classified noun in a language with noun classifiers. The classifier is always more general than the classified noun. This is the reason why Type IV NI is also known as Classifier NI (Woodbury 1975, Mithun 1984, 1986a, Rosen 1989.)

Olutec also exhibits Type IV NI, but it is very limited in use. There are only a few N+V combinations in which the incorporated noun functions as a classifier of the free-standing noun expressing the theme. This construction has been attested only in the speech of the best speakers. Mithun 1984, 1986a has argued that Type IV is the first,

among the four recognized NI types, that gets lost in situations of language death. Thus, it is not surprising that this is the most infrequent of all of the NI types found in Olutec given the endangered condition of the language.

In the following pair of examples the morphosyntactic features of Type I and Type IV compounds are compared. A Type I NI compound is shown in (164), whereas a Type IV NI compound is shown in (165). Both examples include the verb tun 'to do, to make' and the noun kayan 'food'. Note that the verb in (164) takes only one core argument marked by the absolutive proclitic cross-referencing the nominal phrase je? ?itükaw 'my father'. The presence of the incompletive -pa is an additional indication that the verb compound is intransitive. In contrast, the verb in (165) takes two core arguments. The agent is marked by the ergative proclitic on the verb and the theme is expressed by the independent noun ?arrotz 'arroz'.

- (164) Type I
 mü:tak je? ?itükaw kayantumpa
 mü:t=ak je? ?i= tükaw
 and =AN that A3(PSR)=father
- \emptyset = kay+an-tun-pa
 B3(ABS)=food- do -INCI.I
 'And his father is cooking.' (Lit. 'He is food-
 making.')

- (165) Type IV
 ʔarroʔs ʔikayantunkūxukok pekakū
 ʔarrotz ʔi= kay+an-tun-kūx-u =koj =k
 rice A3(ERG)=food- do -PL3-COMI=just=AN

 pek =ak
 trully=AN
 'In fact, they just cooked the rice.' (Lit. 'They
 food-made the rice.')

The presence of the incompleted suffix -pe is an additional evidence that Type IV NI compounds are transitive.

- (166) ʔo sino jaj tankayantumpe pi:nak po:poʔ ʔarrosū
 ʔo sino jaʔ tan= kay+an-tun-pe
 or otherwise DEF A1(ERG)=food -do -INCI.T

 pi:nak po:poʔ ʔarrotz
 a few white rice
 'Or otherwise I cook a little bit of rice.' (Lit.
 'I food-make a little bit of rice.')

The IN kayan 'food' is a classifier in the sense that not only the noun for 'rice' but also other nouns referring to solid food can occupy the theme slot. That is, the IN puts selectional restrictions on the type of noun functioning as a theme, such that the reference of the theme must be within the types of objects included within the category of solid food. Consider the two examples in (167) where the name for 'snake' and 'lean pork' are also classified by the IN kayan.

- (167) a. tzanaʔy ʔikayantunwaʔ
 tzanaʔy ʔi= kay+an-tun-w -aʔ
 snake A3(ERG)=food- do -COMI-NMZR
 'The one who cooked the snake.' (Lit. 'The one who
 food-make snake.') {rs4/165}
- b. piʔkxikaj ʔi:tzümü tzuʔchi ʔoyamej taxkayantuni
 piʔkx+ik+ʔaj ʔi:tzümü tzuʔchi
 lean pig meat
 ʔoyamej tax= kay+an-tun-i
 properly C1(ERG)=food- do -INCD
 'I cook the lean pork very well.' (Lit. 'I food-
 make pig.') {rspf2/518}

The IN nü: 'water' occurs instead of kayan 'food' when the theme of the verb tun 'to do, to make' is a noun referring to an entity out of which a soup can be made. This shows that the same verb can be restricted by different classifiers.

- (168) a. jeʔ koʔke ʔinü:tunuk tantzüʔ
 jeʔ koʔke ʔi= nü:- tun-u =k
 that fish A3(ERG)=water-do -COMI=AN
 tan= tzüʔ
 A1(PSR)=mother
 'My mother prepared fish soup.' {C9/83/710}
- b. tanü:tunam piyu minkaʔwampe mixʔixmatzanü
 tan= nü:- tun-am piyu
 A1(ERG)=water-do -IRRI chicken
 min= ka:=wa:nʔ-pe mix= ʔixmatz-aʔn
 A2(ERG)=NEG=want -INCI.T C2(ERG)=try -IRRD
 'I am going to prepare chicken soup. Don't you
 want to try it?'

The opposite is also true, i.e., the same IN in a classifier function can co-occur with different verb roots. For instance, the noun nü: 'water' is part of Type IV NI compounds which include the verb tun 'do' in (168a-b) and the verb kay 'eat' in (169).

(169) tanü:kayam xükü
 tan= nü:- kay-am xük
 A1 (ERG)=water-eat-IRRI bean
 'I am going to eat bean soup.'

Olutec, like other classifier NI languages, allows constructions in which the same noun is repeated in two positions within the clause. It appears as an IN and as free-standing noun in the theme slot. This type of construction is referred to as "doubling" (Rosen 1989: 303). This doubling phenomenon presents further evidence that incorporation is a word formation process. If NI were a syntactic rule which moves the head of the theme nominal phrase to the incorporating position, as Baker (1988a, 1996) assumes, then we wouldn't expect to find the same noun both incorporated and in the theme slot. In the examples below the same noun is a classifier and a free-standing noun functioning as a theme.

- (170) a. minkayantumpe kayaʔn jokchikaj
 min= kay+an-tun-pe kay+an jokchik+ʔaj
 A2(ERG)=food- do -INCI.T food tasty
 'You are cooking tasty food.' (Lit. 'You are food-
 making tasty food.')
- b. ʔinü:tumpek xüknü:jü
 ʔi= nü:- tun-pe =k xük- nü:
 A3(ERG)=water-do -INCI.T=AN bean-water
 'He is preparing bean soup.' (Lit. 'He is water-
 making bean water.')
- c. tanü:kayam xüknü:jü
 tan= nü:- kay-am xük- nü:
 A1(ERG)=water-eat-IRRI bean-water
 'I am going to eat bean soup.' (Lit. 'I am going
 to water-eat bean water.')
- d. tamüʔkitunu yowamo:kmüʔki mü:t chipintzüʔpimüʔki
 tan= mü:kʔ+i-tun-u yowa- mo:k-mü:kʔ+i mü:t
 A1(ERG)=tamal- do -COMI fresh-corn-tamal and

 chipin-tzü:pʔ+i-mü:kʔ+i
 tomato-pigweed -tamal
 'I made fresh corn tamales and pigweed tamales.'
 (Lit. 'I tamal-made corn tamales.')

Similar to Type III NI, once the argument referring to the theme has been established, the IN may modify succeeding verbs as a means of retaining the entity constant in discourse.

- (171) tanü:tunuk koʔke mü:tak tanü:kayi xi:mu
 tan= nü:- tun-u =k koʔke mü:t=ak
 A1(ERG)=water-do -COMI=AN fish and =AN

 ta= nü:- kay-i xi:mu
 C3(ERG)=water-eat-COMD Simon
 'I prepared fish soup and Simon ate it.'

Mithun (1984, 1986a) has suggested that Type IV NI evolved from Type II NI. In Mithun's diachronic scenario, there are cases in which the possessum of a core argument appears incorporated and the possessor appears as a free-standing noun but the interpretation of the clause is ambiguous. The interpretation based on Type II NI requires that the IN is rendered as the semantic possessum of the noun functioning as direct object. The second interpretation occurs when the IN does not have any longer the semantic reading of a possessum of the original possessor. The original possessum becomes, instead, a classifier coreferent with the external noun. Languages in which the possessum grammaticalizes as a classifier show again the possibility of expressing the possessum as a free-standing noun corefering with the IN, as in (170). Mithun has observed that body-part terms incorporated into the verb are among the first candidates to grammaticalize into classifiers. This has occurred in Olutec where a reduced set of body-part terms have grammaticalized as verbal prefixes with classificatory function. The next section deals with this set of verbal prefixes.

3. Verb Stems with Body-Part Prefixes

Olutec exhibits a closed class of nominal and verbal prefixes which grammaticalized out of body-part terms. A paradigm of affixes with similar functions is found in other Middle-American languages such as Tarascan, Totonac, Nahuatl, Tlapanec, and all Mixe-Zoquean languages (Campbell et al 1986:551).²⁰ The Olutec paradigm is given in (172). The prefixes ʔaw- and win- are related to free-standing nominal roots with the same formal shape. The prefixes koʔ-, natz-, and ʔux- cannot occur as free-standing nouns. However, they appear as part of compounds which make it possible to establish their original nominal source. Finally, there are no attested free-standing nouns or bound nominals which synchronically correspond to the prefixes ni:- and na:-.

(172)	<u>Prefix</u>	<u>Noun</u>	
a.	<u>ʔaw-</u>	<u>ʔaw</u>	'mouth'
b.	<u>win-</u>	<u>win</u>	'eye'
c.	<u>koʔ-</u>	<u>koʔ-pak</u> HEAD-bone ²¹	'head'
d.	<u>natz-</u>	<u>natz-küʔ</u> BACK-hand	'back of the neck'
e.	<u>ʔux-</u>	<u>ʔux-ko:ko</u> BACK-?	'back'

f.	<u>ni:-</u>	-	'BODY'
g.	<u>na:-</u>	-	'CIRCUMVENTION'

Wichmann (1995) has reconstructed several of these morphemes for Proto-Mixe-Zoque. The forms *ʔaw 'pertaining to the mouth or the opening' and *hɨ(x) 'back' have been reconstructed as noun roots and verb prefixes. The forms *ni:- 'surface, corporeal' and *na:- 'circumvention' have been reconstructed as verb prefixes; whereas the forms *win 'eye,' *kopak 'head,' and *nahtz 'neck' have been reconstructed as independent nouns only.

Body-part prefixes are used to form complex nouns and verbs. Some examples with nouns are:

(173) a. ʔaw+N

ʔaw+ʔe:xi 'foreign language' (MOUTH+crab)
ʔaw+chiʔti 'lips turned up' (MOUTH+turned up)
ʔaw+jup+an 'lid' (MOUTH+tip over+NMZR)
ʔaw+kaj+an 'bar' (MOUTH+bar up+NMZR)
ʔaw+küʔx 'branch' (MOUTH+foot)
ʔaw+ma:xan 'Spanish language' (MOUTH+spirit)
ʔaw+nük 'saliva' (MOUTH+?)
ʔaw+tüʔtü 'stutterer' (MOUTH+ONOMATOPOEIC)
tük+ʔaw+ku 'door' (house+MOUTH+wood)
ʔaw+tzu:tzʔi 'lips' (MOUTH+meat)
ʔaw+way 'mustache, beard' (MOUTH+hair)

b. win+N

win+ʔak 'eyelid' (EYE+skin)
win+ʔak+nü: 'tears' (EYE+skin+water)
win+ʔixtük 'glasses' (EYE+glass)

- win+kopak 'president' (EYE+mountain)
win+kuy 'raised sleeping platform' (EYE+wood)
win+kuy+pük 'eyebrows' (EYE+wood+hair)
win+pak 'forehead' (EYE+bone)
win+toj+kü:k 'face' (EYE+?+hole)
win+tüy+an 'apron' (EYE+hang+NMZR)
- c. koʔ+N
- koʔ+pak 'head' (HEAD+bone)
koʔ+pak+pak 'skull' (HEAD+bone+bone)
koʔ+pet+an 'pillow' (HEAD+ascend+INSTR)
koʔ+xik 'brain' (HEAD+?)
- d. natz+N
- natz+küʔ 'back of the neck' (BACK_NECK+hand)
- e. ʔüx+N
- ʔüx+ko:ko 'back' (BACK+?)
ʔüx+ko:ko+tuka 'hunchback' (BACK+?+turtle)
- f. ni:+N
- ni:+ʔapit+po:j 'Mexican opossum' (BODY+thorn+
 possum)
ni:+chipin 'wart' (BODY+smallpox)
ni:+jutuk 'pimples' (BODY+alive)
ni:+pak 'the death' (BODY+bone)
ni:+pük 'hairy person' (BODY+hair)
ni:+taka 'hairless body' (BODY+bald)
ni:+xikü 'person with scabies' (BODY+scabies)
ni:+waʔtz 'naked person' (BODY+clean)
ni:+wachi 'person with sores' (BODY+pimple)

Some examples of verbs formed by a body-part prefix plus a verb root are given in (174).

(174) a. ?aw+V

<u>?aw+xuy?i:y?</u>	'mend, patch' (MOUTH+sew)
<u>?aw+tzum</u>	'tie (door of a house)' (MOUTH+tie)
<u>?aw+xotz</u>	'put a lid (on a bottle)' (MOUTH+tie)
<u>?aw+tij</u>	'get stuck, choke, be constipated' (MOUTH+stay)
<u>?aw+wa:tz?</u>	'open' (MOUTH+be_clear)
<u>?aw+to:k</u>	'sell out of necessity' (MOUTH+sell)
<u>?aw+tü?kx</u>	'get light out' (MOUTH+shine)

b. win+V

<u>win+?e:p+nax</u>	'read' (EYE+see+cross)
<u>win+ja:x</u>	'rub a surface' (EYE+rub)
<u>win+jep</u>	'file (a board)' (EYE+scrape)
<u>win+jo:y</u>	'become cloudy' (EYE+miss)
<u>win+ju:m+nax</u>	'plaster' (EYE+scrub+pass)
<u>win+ju:x</u>	'cover with veil' (EYE+cover)
<u>win+jütz</u>	'iron, file (a board)' (EYE+scrape)
<u>win+ka?tz</u>	'clear out' (EYE+cut with machete)
<u>win+ki:p</u>	'clean a surface' (EYE+clean)
<u>win+may</u>	'study' (EYE+count)
<u>win+wa:tz?</u>	'become clean a surface' (EYE+clean)
<u>win+yokx+nax</u>	'jump crossing s.th.' (EYE+jump+pass)

c. ko?+V

<u>ko?+jo:y</u>	'be mistaken' (HEAD+miss)
<u>ko?+ju:m</u>	'comb' (HEAD+scrub)
<u>ko?+ju:x</u>	'become godfather' (HEAD+cover)
<u>ko?+ka?tz</u>	'prune on top' (HEAD+cut)
<u>ko?+mutz</u>	'break on top' (HEAD+break)
<u>ko?+pitzüm</u>	'finish, agonize' (HEAD+exit)
<u>ko?+tüj</u>	'to bend on top' (HEAD+bend)
<u>ko?+wi:t</u>	'put a ridge on house' (HEAD+twist)

d. natz+V

<u>natz+ʔe:pfi:yʔ</u>	'follow with the sight' (B.NECK+see)
<u>natz+kepʔi:yʔ</u>	'herd' (B.NECK+look for)
<u>natz+pa:tʔi:yʔ</u>	'be enough, reach' (B.NECK+find)
<u>natz+piyüʔkʔi:yʔ</u>	'run after s.one' (B.NECK+run)
<u>natz+witʔi:yʔ</u>	'walk behind s.one' (B.NECK+walk)
<u>natz+wopʔi:yʔ</u>	'herd' (B.NECK+hit)

e. ʔüx+V

<u>ʔüx+ʔe:p</u>	'look sideways' (BACK+see)
<u>ʔüx+ʔü:k</u>	'squat' (BACK+bend)
<u>ʔüx+je:p</u>	'throw (water)' (BACK+catch in water)
<u>ʔüx+katat</u>	'stumble' (BACK+walk swaying)
<u>ʔüx+kej</u>	'undress' (BACK+untie)
<u>ʔüx+kep</u>	'hound' (BACK+look for)
<u>ʔüx+wix</u>	'pull out' (BACK+uproot)
<u>ʔüx+wop</u>	'blow (cloth), hound' (BACK+hit)

f. ni:+V

<u>ni:+ʔe:p</u>	'register, examine' (BODY+see)
<u>ni:+ʔü:tz</u>	'produce noise when frying s.th.' (BODY+buzz)
<u>ni:+chik</u>	'peel, shell' (BODY+peel)
<u>ni:+chip</u>	'scratch, peel' (BODY+scratch)
<u>ni:+chi:wʔ</u>	'drip on s.th.' (BODY+bathe)
<u>ni:+jaweʔt</u>	'shake s.th.' (BODY+move)
<u>ni:+ja:x</u>	'rub s.one.' (BODY+rub)
<u>ni:+jeʔtz</u>	'pull leaves off' (BODY+snap)
<u>ni:+jep</u>	'shave (a pig)' (BODY+scrape)
<u>ni:+je:p</u>	'throw (water)' (BODY+catch in water)
<u>ni:+jok</u>	'paint' (BODY+paint)
<u>ni:+jüx</u>	'singe' (BODY+singe)
<u>ni:+jü:yʔ</u>	'cry to someone' (BODY+cry)
<u>ni:+kaʔ</u>	'fade' (BODY+descend)
<u>ni:+ka:y+nax</u>	'roast a surface' (BODY+roast+pass)
<u>ni:+kep</u>	'register' (BODY+look for)
<u>ni:+ki:p</u>	'clean a surface' (BODY+clean)

<u>ni:+mi:nʔ</u>	'come for someone' (BODY+come)
<u>ni:+mu:k</u>	'suck (popsicle)' (BODY+suck)
<u>ni:+nuʔx</u>	'cover' (BODY+cover)
<u>ni:+pe:tʔ</u>	'sweep' (BODY+sweep)
<u>ni:+top</u>	'dust with a cloth' (BODY+throw with slingshot')
<u>ni:+yem</u>	'fan' (BODY+fan)

g. na:+V

<u>na:+ʔetz</u>	'dance around s.th.' (CIRC.+dance)
<u>na:+chip</u>	'clear s.th. of weeds' (CIRC.+scratch)
<u>na:+pitzüm</u>	'come out from an edge' (CIRC.+exit)
<u>na:+taj</u>	'hoe (beanfield)' (CIRC.+hoe)
<u>na:+wit</u>	'surround' (CIRC.+stroll)
<u>na:+wix</u>	'uproot' (CIRC.+uproot)
<u>na:+wi:x</u>	'smoke on the edges' (CIRC.+smoke)

Different degrees of compositionality in both nouns and verbs result from the combination of a body-part prefix plus a nominal or verbal root. There are extreme cases in which the meaning of the outcome cannot be predicted from the meaning of its parts. For example, the verb stem resulting from the combination of ʔaw 'MOUTH' and wa:tzʔ 'clean' is the intransitive verb ʔaw+wa:tzʔ 'open' and not the expected compositional meaning obtained in EPC: 'somebody's mouth is clean'. The causative form of the verb is illustrated in (175). In this example, it is clear that the body-part noun whose referent undergoes the action conveyed by the verb is

the free-standing noun win 'eye,' and not the one prefixed to the verb, the body-part prefix ʔaw.

- (175) jeʔ ʔu:raxüʔk tyakʔa:waʔtziʔ ʔiwinü
 jeʔ ʔu:ra=xü=k ta= yak- ʔaw- wa:tziʔ-i
 that hour =EV=AN C3(ERG)=CAUS-MOUTH-clean -COMD
 ʔi= win
 A3(PSR)=eye
 'At that time he opened his eyes.' {diab2/138}

The meanings of the body-part prefixes are more abstract than that of their etymological sources. For instance, the form ʔaw 'mouth' when occurring as a prefix refers to orifices, openings, and edges of diverse entities. In (176a-b) ʔaw- before the verb root specifies that the action is carried out on an entity which has a hole. The prefix ʔaw- in (176c) makes explicit that the light of the sun began being visible at the edge of the horizon.

- (176) Meanings associated to ʔaw as body-part prefix:
orifice, opening, edge.

- a. mü:tak taʔawxuyiʔ mü:t noki jeʔ ta:najti
 mü:t=ak ta= ʔaw- xuy+ʔi:yʔ-i mü:t noki
 and =AN C3(ERG)=MOUTH-sew -COMD with paper
 jeʔ ta:najti
 that basket
 'And he patched the basket up with paper.'
 {viaj2/21}
- b. taʔawyü:pe tantükawku
 tan= ʔaw- yü:p -pe tan= tük -ʔaw+ku
 A1(ERG)=MOUTH-insert-INCI.T A1(PSR)=house-entrance
 'I am barring my door.' {aand/107}

- c. naʔkxexü xüwü ʔimino ʔixiyu ʔiʔawtüʔkxtakmi:no
 naʔkxej=xü xüw ʔi= mi:nʔ-i ʔixʔi:yʔ-u
 when =EV sun A3(ABS)=come -INCD start -COM.I
- ʔi= ʔaw- tüʔkx-tak- mi:nʔ-nü -i
 A3(ABS)=MOUTH-shine-LNKR-come -already-COMD
 'When the sun came, it was already getting
 clearer.' {C7/96/46}

The prefix win- does not refer to a concrete 'eye' but to the visible surface of an entity. For instance, the derived verb win-jütz in (177a) means 'scrape a surface' or 'iron (clothes)'. The verb win-ki:p in (177b) means 'clean a surface'.

- (177) a. por ti: tanka:tokowinjützam mintuku
 por ti: tan= ka:=toko- win-jütz -am
 for what A1(ERG)=NEG=reason-EYE-scrape-IRRI
- min= tuku
 A2(PSR)=cloth
 'Why won't I iron your clothes?' {rp2/572}
- b. jeʔk ʔiwinki:pe tantükü
 jeʔ=k ʔi= win-ki:p -pe tan= tük
 that=AN A3(ERG)=EYE-clean-INCI.T A1(PSR)=house
 'And she cleans my house.' {rs2/89}

Some of the body-part prefixes in (172) grammaticalized from incorporated terms which participated in EPC's (see §2.2.3). Synchronically, there are clear semantic differences between abstract body-part prefixes and concrete incorporated body-part terms. Such differences are not obvious formally since both the body-part prefix and the incorporated body-part noun share the same morphological

slot before the verb root. The range of semantic roles which are the target of incorporation with body-part terms is the same one with which the body-part prefixes hold a semantic relation. The prefixes make reference to the shape of semantic themes (178a,b), locations/goals (178c,d), and agents (178e).

- (178) a. koʔ-: THEME of Monovalent V
 koʔtaknũpak naʔwunaʔk
 ø= koʔ- tak -nũ -pa =k naʔaw-ʔunak
 B3 (ABS)=HEAD-go bald-already-INCI.I=AN old man-DIM
 'The little old man is already bald.' {DICT}
- b. koʔ-: THEME of Bivalent Agentive V
 tankoʔtũjam mo:kũ
 tan= koʔ- tũj -am mo:k
 A1 (ERG)=HEAD-bend-IRRI corn
 'I am going to bend the ear of corn (which is on the top of the plant).' {C6/54/6}
- c. ʔaw-: LOCATION of Monovalent V
 nu:nka taxnikaʔe:pe ʔipeʔniʔk ni jumũk ʔiʔa:maʔji
 nu:nka tax= ni= ka:=ʔe:p-e ʔi= peʔnik
 never C1 (ERG)=NEG=NEG=see -INCD A3 (PSR)=nest

 ni jumũ =k ʔi= ʔaw- ma:jʔ-i
 NEG where=AN A3 (ABS)=MOUTH-sleep-INCD
 'I have never seen its nest nor the place where it sits on the eggs.' {vaq/37}
- d. natz-: LOCATION of Bivalent V
 tũkxam taxnaswitiʔ
 ta= nũkx-am tax= natz- wit+ʔi:yʔ-i
 B1 (ABS)=go -IRRI C1 (LOCAL)=B.NECK-walk -INCD
 'I am going to walk behind you.' {C7/45/53}
- e. win-: AGENT of Bivalent Agentive V
 ʔixi:y tanwinmaye
 ʔixʔi:yʔ-i tax= win- may -e
 begin -COMD C1 (ERG)=EYE-count-INCD
 'I began to read it (the paper).' {C5/93/285}

There are two reasons for claiming that the morphemes in (172) constitute a paradigm which has a different grammatical status with respect to other incorporated body-part terms. First, morphemes koʔ-, natz-, ʔüx-, ni:- and na:- only occur as prefixes. There is no corresponding free-standing noun for these prefixes. And second, the forms win and ʔaw, which are both prefixes and free-standing nouns, have developed an abstract meaning in their function as verbal prefixes.²² A comparable shift in meaning has not occurred with other body-part terms. The nouns koʔpak 'head,' küʔx 'foot,' jüp 'nose,' tü:tz 'tooth,' ta:tzük 'ear,' way 'hair,' which have not become verbal prefixes, exhibit the same concrete meaning in both EPC and IPC. As an illustration, consider how the meaning of koʔ+pak stays invariant in both the EPC, (179a), and the IPC, (179b).

(179) a. koʔ+pak 'head' in the EPC by NI

jumej pün takoʔpakmukxik tantükaw
 jumej pün ta= koʔ+pak-mukx-i =k
 how MODAL C3(ERG)=head -bite-COMD=AN

tan= tükaw
 A1(PSR)=father

'I don't know how (the parrot) bit my father on the head.' (Lit. '[...] (the parrot) head-bit my father.')

b. koʔ+pak 'head' in the IPC

ʔimukxayuk ʔikoʔpaʔk
 ʔi= mukx-ay -u =k ʔi= koʔ+pak
 A3(ERG)=bite-APPL1-COMI=AN A3(PSR)=head
 '(The parrot) bit his head.' {duenyo/43}

In contrast, the morpheme win exhibits the abstract meaning 'visible surface' when functioning as a verbal prefix, as shown in (180a). The same form means 'eye' in an IPC, as shown in (180b).

- (180) a. win as a prefix
 tanwinjüspe naʔka
 tan= win-jütz -pe naʔka
 Al(ERG)=EYE-scrape-INCI.T board
 'I am filing a board.' (Lit. 'I am scraping the visible surface of a board.')
- b. win as a noun
 tanjüspe tanwinü
 tan= jütz -pe tan= win
 Al(ERG)=scrape-INCI.T Al(PSR)=eye
 'I am scraping my eye.'

The grammatical shift from a noun referring to a body-part into a verbal prefix with an abstract meaning is still in process. On the one hand, we have seen that koʔpak 'head,' küʔx 'foot,' jüp 'nose,' tü:tz 'tooth,' ta:tzük 'ear,' and way 'hair' have not developed abstract meanings when occurring in verb compounds, i.e., they have not become verbal prefixes. In contrast, koʔ-, natz-, ʔüx-, ni:- and na:- are verbal prefixes only, i.e., there is no corresponding free-standing noun for these prefixes. The morphemes ʔaw and win could be considered somewhere in the middle of these two extremes. Win and ʔaw function in some compounds as body-part verbal prefixes, and in some others

as semantic possessums of one of the clausal arguments. They are verbal prefixes bearing abstract meanings, in (a-c) and (177a,b). They are semantic PSM's bearing the concrete meanings 'eye' and 'mouth,' in the EPC's (181a-e).

- (181) a. puʔtzüʔk tawintükiyüw
 puʔtzük ta= win-tük+ʔi:yʔ-ü -w
 garbage B1 (ABS)=eye-enter -INV-COMI
 'Garbage came into my eye.' {rp3/327}
- b. wimpiʔspa ʔawchikunaʔaʔw
 ø= win-piʔtz-pa ʔawchikunaʔaw
 B3 (ABS)=eye-blink-INCI.I man with crooked mouth
 'The man with the crooked mouth is blinking.'
 (Lit. 'The man eye-blinks.') {DICT}
- c. winxuyukʔe:pak wo:ni
 ø= win-xuyukx -ʔe:p-pa =k wo:ni
 B3 (ABS)=eye-be curved-see -INCI.I=AN Bonifacio
 'Bonifacio is crossed-eyed.' {DICT}
- d. tanʔawki:pek kata
 tan= ʔaw- ki:p -pe =k kata
 A1 (ERG)=mouth-clean-INCI.T=AN Cata
 'I am cleaning Catalina's mouth.' {DICT}
- e. ʔawtzüywak xüknü:jü chu:chunaʔk
 ø= ʔaw- tzi:yʔ-ü -w =ak xük -nü:
 B3 (ABS)=mouth-stick -INV-COMI=AN beans-water

 chu:chu-nak
 small -DIM
 'The bean soup was caked on the child's mouth.'
 {DICT}

In addition to the pure lexical function (i.e., to create new words), body-part verbal prefixes are used in discourse as means for backgrounding the entities referring to the semantic PSM (Type II NI in Mithun's typology). This enables the semantic PSR to be rendered as a core argument

of the clause (Mithun 1984, 1997). In the following passage (from one of the elicited Frog Stories)²³ the speaker describes how the dog (one of the main protagonists in the story) gets his head stuck inside a bottle. The free-standing noun koʔ+pak is never used to refer to the 'head'. Instead, this region of the body is expressed by the prefix koʔ- on the various verb tokens. This strategy, which backgrounds the semantic PSM, allows the semantic PSR (the dog) to be coded as a clausal argument in the narration.

- (182) a. yaʔk xuʔninakü wepak ʔitükiyi
yaʔ =ak xuʔni-nak wew+pi=ak
this=AN dog -DIM there =AN

ʔi= tük+ʔi:yʔ-i
A3(ABS)=enter -COMD
'This little dog entered there.' {id2/55}
- b. wepak ʔitükiyi ʔen jeʔ lime:ta
wew+pi=ak ʔi= tük+ʔi:yʔ-i ʔen jeʔ
there =AN A3(ABS)=enter -COMD in that

lime:ta
bottle
'There, it went into the bottle [...]' {id2/56}
- c. ʔen tukak lime:ta ʔikoʔjoʔkxi
ʔen tuk=ak lime:ta ʔi= koʔ- joʔkx-i
in one=AN bottle A3(ABS)=head-hook -COMD
'His head got stuck in one bottle.' {id2/61}
- d. ʔikoʔtiji
ʔi= koʔ- tij -i
A3(ABS)=head-stay-COMD
'His head got stuck.' {id2/62}

- e. jemak ?iko?tiji xu?nina?k ?en je? lime:ta
 je?+mü=ak ?i= ko?- tij -i xu?ni-nak ?en
 there =AN A3(ABS)=head-stay-COMD dog -DIM in

 je? lime:ta
 that bottle
 'There, the head of the little dog got stuck, in
 that bottle.' {id2/63}
- f. mente ya?k chu:chunakü ya:xpa ja?
 mente ya? =ak chu:chu-nak ø= ya:x?-pa ja?
 while this=AN small -DIM B3(ABS)=shout-INCI.I 3AN
 '[...] while the little kid was shouting' {id2/73}
- g. je?kü xu?ninakü lime:tajotpi ?i?itno ko?tiji?k
 je? =k xu?ni-nak lime:ta-jot -pi
 that=AN dog -DIM bottle -innards-LOC

 ?i= ?it -nü -e ko?- tij -ik
 A3(ABS)=exist-already-INCD head-stay-PCP
 'the little dog's head was already stuck in the
 bottle.' {id2/74}

There are also examples in the corpus where the body-part prefixes can serve as verbal classifiers (Type IV NI in Mithun's typology) (Mithun 1984, 1986a; Rosen 1989). In these instances the prefix attached to a lexical verb can be doubled by an external noun. That is, the prefix and the external noun exhibit the same or similar form. The body-part prefix bears a very general meaning which specifies the shape of the referent of the external noun. The external noun makes explicit the participant implied by the prefix. For instance, the external nouns in (183a,b) are doublets of the prefixes ?aw- and win-. The verb ?aw-xotz in (183a) refers to the act of putting a lid on a container which has

an opening. The free-standing noun ?aw explicitly identifies the opening of the bottle. The intransitive verb win-jo:y in (183b) means 'become cloudy'. The possessum of the external noun phrase, the noun win 'eye,' identifies the specific referent implied by the verbal prefix with identical form.

- (183) a. ko:rcho ?awxotzüp ?i?awü lime:ta
 ko:rcho ø= ?aw- xotz-ü -pa ?i= ?aw
 cork B3 (ABS)=MOUTH-tie-INV-INCI.I A3 (PSR)=mouth
 lime:ta
 bottle
 'The cork is being put on the bottle.' {DICT}
- b. winjo:yu tanwinü
 ø= win-jo:y-u tan= win
 B3 (ABS)=EYE-lose-COMI A1 (PSR)=eye
 'My vision got blurred.' {DICT}

Similar to Mohawk and other languages with Type IV NI, once the specific referent has been established in a previous clause, subsequent verbs may include the same incorporated noun (or in this case body-part prefix) to maintain the referent constant in discourse. To illustrate this, consider the fragment of a conversation in (184). It describes how an insane man is kept locked up by his family in a room. The verbs yü:p 'insert' and tzum 'tie' are prefixed by the body-part prefix ?aw- which specifies that one of the arguments of the clause is an entity with an opening. In (184a) the prefix ?aw- qualifies the verb yü:p

'insert' specifying that the entity being locked up (the door) is located in the entrance (opening) of a house. The compound tük+ʔaw+ku 'door' includes the morpheme ʔaw which is a doublet of the verbal prefix. This noun compound literally means 'the mouth of the house made out of wood'. In (184b) the same prefix ʔaw- qualifies the verb tzum 'tie' specifying that what is being tied up is also an opening. The clause does not exhibit any external noun or pronoun referring to the thing which is being tied up. The body-part prefix is the only morphological clue which makes explicit that the door continues to be a profiled participant in the subsequent discourse.

- (184) a. yakawyü:paʔxüpak түkawku
 ø= yak- ʔaw- yü:p -aʔx -ü -pa =k
 B3 (ABS)=PASS-MOUTH-insert-APPL1-INV-INCI.I=AN
 түк- ʔaw- куй
 house-MOUTH-wood
 'The door (of the crazy man's room) is being locked up.' {rp3/425}
- b. yakawtzumaʔxüpak mü:t ʔala:mwre para
 ʔika:pitzümanaʔ
 ø= yak- ʔaw- tzum-aʔx -ü -pa =k mü:t
 B3 (ABS)=PASS-MOUTH-tie -APPL1-INV-INCI.I=AN with
 ʔala:mwre para ʔi= ka:=pitzüm-an =jaʔ
 wire for A3 (ABS)=NEG=exit -IRR=3AN
 'It is being tied up with wire. In that way he (the crazy man) will not be able to escape.' {rp3/426-27}

In sum, in this section I have argued that the paradigm of seven verbal prefixes given in (172) grammaticalized from body-part terms which were part of EPC by NI.

The prefixes ni:- and na:- are the most grammaticalized elements of the paradigm. There are two reasons for claiming this. First, their lexical sources are completely lost. Second, they have become derivative morphemes with very vague meaning. Ni:- and na:- function as transitivizers in compounds such as ni:+mi:n? [BODY+come] 'come for someone' and na:+?etz [CIRC+dance] 'dance for someone'. The least grammaticalized elements of the paradigm of verbal prefixes are win- and ?aw-, which grammaticalized from the noun stems win 'eye' and ?aw 'mouth'. The meaning of some of the compounds which include win and ?aw still reflects their EP origin. In some other cases the meaning of body-part-prefix+V cannot be accounted for by the sum of the meanings of its parts. The comparison of several N+V compounds demonstrated that the semantic shifts that led to the creation of verbal prefixes took place before any other formal change.

The body-part prefixes ?aw-, win-, ko?-, and ni:- are also used to identify a backgrounded PSM in core argument position. This is done via Type III and Type IV NI. In Type III NI, the incorporated noun refers to a participant which

has been established previously in discourse via a free-standing noun. In Type IV NI, the incorporated noun is expressed by an identical or similar form outside the verb. Once the identity of the participant has been established in discourse, the following mentions of such a participant is done via the verbal-prefix only.

4. Denominal Verbs

Olutec, similar to Eskimo, Salishan and other northwestern Native American languages, has a set of affixes that attach to nominal and adjectival roots to derive verbs. This type of verb formation has been analyzed as noun incorporation in Eskimo languages by Sadock (1980, 1986, 1991), Fortescue (1984, 1994), Allen (1996), among others. Eskimo-Aleut languages are well known for having more than two hundred of these types of derivative affixes. On the other hand, for Sapir (1911), Mithun (1986b) and Gerdtz (1998), this type of verb formation exhibits the features of "denominal verbs" and should not be considered part of the phenomenon known as NI because the affix with verbal meaning cannot stand by itself without the noun.

In the standard definition proposed by Sapir (1911), NI is understood as a type of compound which includes a noun stem and a verb stem. Each stem could also occur forming independent words. Mithun, who follows Sapir's definition, argues against the NI analysis proposed by Sadock:

The Greenlandic construction is based on a single noun stem with a derivational suffix. It is not entirely clear why one would refer to this as NI, since it is not obvious what such nouns are incorporated into. In incorporating languages, a verb minus its Incorporated Noun is still a well-formed verb: but in Greenlandic, a denominal verb minus its noun stem would be no word at all. (Mithun 1986b:32)

There are three facts that make denominal verb formation in Eskimo-Aleut languages similar to NI. First, there is a great number of denominal suffixes (more than 200) whose meaning is similar to the meaning of independent verbs in other languages. Second, the internal nominal in the denominal verb may stand for: a) the object argument of the denominal suffix, b) an oblique argument, or c) a secondary predicate (Sadock 1980). These are the grammatical functions which have been attested as target of incorporation cross-linguistically. Third, similar to Type IV NI, free-standing nouns and modifiers outside the verb complex can be in relation with the noun internal to the denominal verb.

Some of the denominal affixes of Salishan languages have grammaticalized from verbs which were part of what diachronically was a NI construction (Mithun 1997). Such an origin has been established through the comparison of cognate morphemes within the different languages of the same family, since what is a denominal affix in one language is a verb stem in another.

Olutec has three denominal suffixes which cannot occur as verb roots by themselves. These suffixes are: -ʔi:yʔ 'inchoative,' as in (185a); -ʔat 'consider, treat, be,' as in (185b); and -ʔax 'be located at, have,' as in (185c).²⁴ Out of these three forms, only the inchoative *-ʔi:y has been reconstructed for Proto-Mixe-Zoque (Wichmann 1995:537).²⁵

- (185) a. yojwaʔiwaʔk ʔiʔawoʔk
 ∅= yoʔjwa-ʔi:yʔ-w -aʔ =k
 B3(ABS)=man -INCH -COMI-PERF=AN

 ʔi= ʔawok
 A3(PSR)=offspring
 'Her sons had already become men.' {aand/850}
- b. ja:tukaj ʔiyoʔweʔatpe
 ja:tukʔaj ʔi= yoʔwe -ʔat -pe
 another_one A3(ERG)=husband-CONSIDER-INCI.T
 'Her husband is the other one.' (Lit. 'She considers the other one as her husband.')
 {rspf2/221}
- c. taʔawokʔaxiy paʔko
 tan= ʔawok -ʔax -i -y paʔko
 A1(ABS)=offspring-HAVE-COMD-INVD.C a_lot
 'I had many children.' {lm3/122}

In addition to the above three denominalizers, there is a fourth one, the morpheme tun 'DO'. Synchronically tun is both a verb stem meaning 'make, do,' and a grammatical morpheme which derives nouns and adjectives into transitive or intransitive verbs. Similar to the case of Salishan languages, it is clear that a NI construction (N+V) was the source which allowed the reanalysis of the verb tun into a denominalizer. The gloss of tun, when used as a denominalizer, is given in capital letters ("DO"), as in (186a,b).

- (186) a. mixuʔnitumpa
 mi= xuʔni-tun-pa
 B2 (ABS)=dog -DO -INCI.I
 'You are becoming difficult.' {id3/557}
- b. ka: nitzukintunküüpaʔ
 ka: ø= ni -tzukin-tun-küx-ü -pa =jaʔ
 NEG B3 (ABS)=RFLX-fight -DO -PL3-INV-INCI.I=3AN
 'They are not fighting among themselves.' {rs6/14}

The semantic and structural features of each type of denominal verb are explained next. It will be shown that the only structures which can be considered cases of NI are the ones including the morpheme tun.

4.1 The Suffix -ʔi:yʔ

Nouns and adjectives derived by -ʔi:yʔ are intransitive verbs with inchoative meaning: 'X becomes Y,' 'X acquires the property predicated by Y'. Thus, the nominal or adjectival root preceding -ʔi:yʔ carries a predicative function. In this respect there is a clear difference between inchoative verbs and Type I NI verbs which include a monovalent root as a second element of the compound (N+V). An example of Type I NI is nü:-pitzüm (water-exit) 'water is coming out'. In compounds like this, the only argument of the clause is the incorporated noun (see §2.1.3). In contrast, the argument of a clause which includes an inchoative verb is expressed by the absolutive proclitic, as in (187a) and (188a-c), or by the combination of the absolutive proclitic and the free-standing noun external to the verb, as in (187b,c).

(187) Adjective + Inchoative

- a. ʔiʔoyaʔiyik pi:naʔk
 ʔi= ʔoya-ʔi:yʔ-i =k pi:nak
 A3(ABS)=good-INCH -CMD=AN a little
 'He got a little bit better.' {aandc/64}
- b. para ʔika:ta:masʔiʔaʔn yowamüʔki
 para ʔi= ka:=ta:matz-ʔi:yʔ-aʔn yowa+mü:kʔ+i
 for A3(ABS)=NEG=bitter -INCH -IRRD tamal
 'In order that the tamal does not get bitter.'
 {mi2/20}

- c. porke tuʔk na:xej ʔipakpakʔi:nyo
 porke tuk naʔkxej
 because one when

ʔi= pakpak-ʔi:yʔ-nü -e
 A3 (ABS)=hard -INCH -already-INCD
 'Because (the time comes) when one already becomes stiff.' {rp3/554}

(188) Noun + Inchoative

- a. yam minaʔawifaʔn
 yaʔ+mü min= naʔaw -ʔi:yʔ-aʔn
 here A2 (ABS)=old man-INCH -IRR
 'You are going to get old here.' {olu28/180}
- b. mü:tü ʔiʔajchiyoʔjwaʔinye:kü
 mü:t ʔi= ʔajchi+yoʔjwa-ʔi:yʔ-nü -i =k
 and A3 (ABS)=young man -INCH -already-COMD=AN
 'and when he already became a man.' {C19/84/22}
- c. tzu:ʔiyuʔaʔ ʔitü
 ø= tzu: -ʔi:yʔ-u -ʔaʔ ʔitü
 B3 (ABS)=night-INCH -COMI-PERF TEMP
 'It had become dark already.' {id3/104}

Inchoative verbs can be further derived by a causative prefix resulting in a transitive verb, as in (189). In this example the denominalized adjective tu:ntu 'stupid' does not stand for any of the two core arguments licensed by the verb.

- (189) ʔasta ke mixyaktu:ntuʔiʔi jaʔ
 ʔasta ke mix= yak- tu:ntu-ʔi:yʔ-i jaʔ
 until that C2 (ERG)=CAUS-stupid-INCH -COMD 3AN
 'It got to a point where you made him dopey.'
 {rs6/72}

Thus, this type of derivation cannot be treated as a case of NI.

4.2 The Suffix -ʔat

In Olutec, attributive clauses such as 'I am small,' equative clauses such as 'He is my brother,' and proper inclusion clauses such as 'You are a priest' may be expressed using non-verbal or verbal predicates. Non-verbal predicates are either adjectives or nouns which cannot carry aspectual suffixes. The absolutive proclitic on the non-verbal predicate signals the only core argument of the clause, as in (190a). An external free-standing noun or independent pronoun cross-referencing the absolutive can also occur (190b-e).

- (190) a. porke tachu:chu seme
 porke ta= chu:chu seme
 because B1 (ABS)=small very
 'Because I am very small.' {koya/24}
- b. seme michikxpak mi:s
 seme mi= chikxpak mi:tz
 very B2 (ABS)=pretty you
 'You are really pretty.' {rspf2/647}
- c. porke tanmajaw yowana jaʔ
 porke tan= majaw ø= yowa =na jaʔ
 because A1 (PSR)=woman B3 (ABS)=young=still 3AN
 'Because my wife is still young.' {lm3/106}
- d. weni:toʔampok tanʔa:wi jaʔ
 weni:to=ʔampok ø= tan= ʔa:wi jaʔ
 Benito =also B3 (ABS)=A1 (PSR)=brother 3AN
 'Benito is also my brother.' {mil/182}

- e. teʔej pek mi:sü mitükaw
 teʔej pek mi:tz mi= tükaw
 now trully you B2(ABS)=father
 'Now you are a father.' {lm3/605}

The copula-like suffix -ʔat 'BE' derives adjectival or nominal roots into intransitive verbs which convey attribution, equation, or proper inclusion. The absolutive proclitic on the derived verbs signals the only core argument of the clause. Observe that unlike the non-verbal predicates shown in (190), the derived intransitive verbs shown in (191) and (192) do carry aspectual suffixes.

- (191) Adjective + Copula
 a. jaʔmej tanchu:chuʔati
 jaʔmej tan= chu:chu-ʔat-i
 in that way A1(ABS)=small -BE -COMD
 'In that way, when I was a child.' {apuesta/121}
- b. miyowaʔatuna
 mi= yowa -ʔat-u =na
 B2(ABS)=young-BE -COMI=still
 'You were still young.' {lm3/300}
- c. tzaʔamʔatu jeʔ kuytúʔm
 ø= tzaʔam-ʔat-u jeʔ kuytüm
 B3(ABS)=ripe -BE -COMI that avocado
 'The avocado was ripe.' {rspf1/378}
- d. naʔkxej tuʔk ʔiyowaʔate
 naʔkxej tuk ʔi= yowa -ʔat-e
 when one A3(ABS)=young-BE -INCD
 'When one is young.' {lm3/308}
- (192) Noun + Copula
 a. pünʔatam
 ø= pün-ʔat-am
 B3(ABS)=who-BE -IRRI
 'Who would it be.' {diab1/25}

- b. *tujpaʔatpa pūna jaʔ*
 ∅= *tuj+pa+ʔ-ʔat-pa* *pūn* =*na* *jaʔ*
 B3 (ABS)=*hunter* -BE -INCI.I probably=*still* 3AN
 'It is possible that he is still a hunter.'
 {olu26/152}
- c. *ta ʔoyajaykakʔatkūxukū*
ta ∅= *ʔoyaj+jaykak-ʔat-kūx-u* =*k*
 COND B3 (ABS)=*good people* -BE -PL3-COMI=AN
 'If they were good people.' {olu27/139}

There are two reasons for not analyzing derived verbs of this type as NI compounds. First, the morpheme -ʔat never shows up as a simple verb. An ill-formed construction results when ʔat stands as a verb and not as a denominalizer.

- (193) * *taʔatu*
ta= *ʔat-u*
 B1 (ABS)=BE -COMI
 (Intended reading: 'I was.')

Second, the derived element (noun or adjective) does not stand for a licensed argument. Instead, the derived morpheme expresses the semantic content of the predication.

The result of noun or adjective plus the suffix -ʔat produces not only intransitive verbs but also transitive ones. The gloss 'CONSIDER' appears under -ʔat when it derives transitive verbs from nouns. Some examples are given in (194). Denominal verbs of this type exhibit the direct/inverse alternation and show the same pronominal and aspect marking typical of canonical transitive verbs. The

clauses in (194a-c) follow the direct pattern. In this pattern, the first core argument of a transitive verb is signaled by the ergative proclitic, as in (194a-b). Note that the verb in (194c) is suffixed by -pe (incompletive for transitive verbs occurring in independent clauses). The clause in (194d) follows the inverse pattern. The absolutive overtly signals the second core argument in transitive clauses following the inverse pattern. This is the strategy attested in (194d). Thus, person proclitic and aspect marking on the verb show that the clauses in (194a-d) are transitive.

- (194) a. mü:tak je? tanmu?ut?atu?aj
 mü:t=ak je? tan= mu?ut -?at -u -?aj
 and =AN that A1(ERG)=son_in_law-CONSIDER-COMI-NMZR
 'And that one who was my son-in-law.' (Lit. 'And
 that one who I considered as a son-in-law.')
- {id3/635}
- b. kwa:nti ma:s ?ü:s tanka?unak?ata:ma?
 kwa:nti ma:s ?ü:tz
 how_much more I
- tan= ka:=?unak -?at -am =ja?
 A1(ERG)=NEG=offspring-CONSIDER-IRRI=3AN
 '(I won't take care of him) since he is not going
 to be my child.' {C19/81/41}
- c. te?ej pekü pos yaknü?üktü?k ?ina:x?atküxnüp
 te?ej pek pos yaknü?ük-tük
 now trully indeed poor -PL
- ?i= na:x -?at -kük-nü -pe
 A3(ERG)=earth-CONSIDER-PL3-already-INCI.T
 'Right now, this one is indeed the poor people's
 land.' (Lit. 'Right now, the poor people consider
 it their land.')
- {vg2/299}

- d. le:ncho mimü?ku?atüpa?
 le:ncho mi= mü?ku -?at -ü -pa =ja?
 Lencho B2 (ABS)=brother-CONSIDER-INV-INC.I=3AN
 'You are Lencho's brother.' (Lit. Lencho considers
 you as a brother) {ch/DICT}

A further piece of evidence which confirms that the derived verbs, such as the ones in (194a-d), are transitive is the fact that they can occur in reflexive (195a), reciprocal (195b), and passive (195c) constructions.

- (195) a. mi:s miniko?paktumpa?atüp
 mi:tz mi= ni- ko?paktunpa?-?at -ü -pa
 you B2 (ABS)=RFLX-boss -CONSIDER-INV-INCI.I
 'You consider yourself the boss.'
- b. tanimü?ku?atanüpa:t
 ta= ni- mü?ku -?at -anüpa -:t
 B1 (ABS)=RECP-brother-CONSIDER-INV+IRRI-PL.SAP
 'We are going to be brothers.'
- c. tyaktükaw?atpa
 ta= yak- tükaw -?at -pa
 B1 (ABS)=PASS-father-CONSIDER-INCI.I
 'I am treated as a father.'

The transitive verbs in (194a-d) convey a relation between a participant which is equated to a predication which includes a possessor and a possessum, e.g. 'I am his brother'. In many Amerindian languages (e.g. Oapan Nahuatl, Classical Tarascan, Cahuilla, Hopi, and Huichol, among others), such a relation can be encoded by two types of constructions: 1) an intransitive non-verbal clause, and 2) a transitive verbal clause (Cf. Amith and Smith-Stark 1994a,

1994b). Olutec is also a language in which propositions such as "he is my brother" can be conveyed via an equational (non-verbal) type of clause or a transitive (verbal) type of clause, as in (194a-d). The equational type, shown in (190d), is further illustrated with the examples in (196a-c).

- (196) a. mijüyimuʔutak yaʔaj
 ø= min= jüyi+muʔut=ak yaʔaj
 B3 (ABS)=A2 (PSR)=son in law=AN this
 'Is he your son-in-law?' {mil/41}
- b. ʔiʔapu jaʔkü gumersi:ndo
 ø= ʔi= ʔapu jaʔ=k gumersi:ndo
 B3 (ABS)=A3 (PSR)=grandfather DEF=AN Gumersindo
 'His grandfather is Gumercindo.' {mil/88}
- c. tiya jasi:nta tanjayko:keʔ
 tiya jasi:nta ø= tan= jayko =k =jeʔ
 HON Jacinta B3 (ABS)=A1 (PSR)=older sister=AN=that
 'Mrs. Jacinta is my older sister.' {mil/180}

In their study of verbal and non-verbal two-place possessive predications such as 'X is Y's grandfather' Amith and Smith-Stark (1994a, 1994b) use the three following terms to describe the elements that cross-linguistically appear in these constructions:

- (197) Relator: 'the lexical term that expresses the relationship between the two arguments (grandfather)'
Referent: 'the argument that is identified with the relator (X)'
Relatum: 'the argument acting as possessor (Y)'

These elements are expressed in Olutec by morphemes in different functions depending on whether the predication is non-verbal or verbal. In the non-verbal equative construction the relatum (the semantic possessor) is marked by the possessive proclitic (Set A) before the relator (the semantic possessum). The referent is the nominal cross-referencing the absolute. It identifies the entity which is asserted to be identical to the possessor+possessum non-verbal predicate. For instance, in (198), the relatum is marked on the relator (xüw 'name') by the third-person proclitic ?i= which is cross-referencing the third-person independent pronoun ja?. The proper noun che:pa is the referent which is asserted to be identical to the non-verbal predicate ?ixüwü 'her name'. The same proper name cross-references the third-person absolute.

(198)

<u>Relatum</u>	<u>Relator</u>	<u>Referent</u>
ja? [?] =k	ø=	?i=
3AN=AN	B3 (ABS)=A3 (PSR)=name	xüw che:pa
'Her name is Chepa.' {aandb/19}		

On the other hand, in the transitive verbal type, the relator is denominalized. The relatum is signaled by the ergative proclitic when the clause is direct. In the same clause the referent is not overtly expressed on the verb but may be expressed by an external nominal. In (199) the

relator is tzü? 'mother,' the relatum is the second person ergative proclitic min=, and the referent is the clefted pronoun je?ke?.

- (199)
- | <u>Referent</u> | <u>Relatum</u> | <u>Relator</u> |
|--|----------------|-----------------------|
| je? =k =je? | min= | tzü? -?at -u |
| that=AN=CLEFT | A2 (ERG) | =mother-CONSIDER-COMI |
| 'That one (is the one) who was your mother.' (Lit. | | |
| 'That one is the one that you considered or | | |
| treated as a mother.') | | |
- {aand/538}

When the transitive verbal type follows the inverse pattern the referent is signaled by the absolutive on the verb which may be cross-referencing an external nominal. In the same clause the relatum may be expressed by an external nominal.

- (200)
- | <u>Referent</u> | <u>Relator</u> | <u>Relatum</u> |
|---|----------------------------|----------------|
| ?u:tz=ak ta= | yo?we -?at -ü -w | kata |
| I =AN B1 (ABS) | =husband-CONSIDER-INV-COMI | Cata |
| 'I was Cata's husband.' (Lit. 'Cata treated me as | | |
| a husband.') | | |

Two-place possessive predications of the verbal type are used instead of the non-verbal type when aspect is overtly encoded. A second factor which triggers the use of the verbal over the non-verbal type is the position that the referent and the relatum occupy in the saliency hierarchy (SAP>3Salient>3Non-salient). When the referent is higher

than the relatum in this hierarchy (e.g. 'I am his brother,' 'you are Peter's father, etc.')

the predication is obligatorily expressed as verbal. Under similar circumstances many other Amerindian languages also require the use of their alternate verbal pattern (e.g. Oapan Nahuatl, Cahuilla, Chinook (Amith and Smith-Stark 1994b:534)).

Olutec constructions which include a more salient referent than relatum follows the inverse pattern, as in (194c) and (200). The direct pattern is attested within possessive verbal predications when the opposite is true, i.e., when the referent is lower in saliency than the relatum (e.g. 'He is my brother,' 'Peter is your father,' etc.)

There are two reasons for not considering two-place possessive predications as NI constructions. First, the morpheme attached to the relator is not a verb stem. And second, the element expressing the relator does not stand as a verbal argument as in the canonical cases of NI.

4.3 The Suffix -ʔax

The suffix -ʔax, glossed as 'HAVE,' derives nouns into nonagentive bivalent verbs with the meaning 'X exist at Y'

or 'Y have X' where X and Y stand as semantic arguments sanctioned by the verb. The semantic argument represented with X in the formula will be referred to as "Theme". This argument is expressed by the denominalized noun only. That is, the Theme is only expressed as a conflated verbal argument which lacks core argument status. The participant represented by Y in the formula is the only syntactic argument of the clause. This participant will be referred to as "Location". For instance, in (201a) the Theme is the denominalized noun majaw which does not have a core argument status. In the same example the Location is signaled by the first-person absolutive proclitic tan=. This is the only core argument of the clause. Other examples which include third-person Locations are (201b-c).

- (201) a. ʔika:wanu tanmajawʔaxaʔnej
 ʔi= ka:=wa:nʔ-u
 A3(ERG)=NEG=want -COMI

 tan= majaw-ʔax -aʔn+e+j
 A1(ABS)=woman-HAVE-INV+IRRD
 'He did not want me to have a wife.' {C10/82/232}
- b. pero pajamʔaxüpna tuʔk
 pero ø= pajam -ʔax -ü -pa =na tuk
 but B3(ABS)=strength-HAVE-INV-INCI.I=still one
 'But one still has strength.' {lm3/326}

- c. jaʔjeʔ tu:na porke ʔapitʔaxüp
 jaʔ=jeʔ tu:na porke
 DEF=CLEFT tuna because
- ø= ʔapit-ʔax -ü -pa
 B3 (ABS)=thorn-HAVE-INV-INCI.I
 'That one is tuna (cactus fruit) because it has
 thorns.' {RSAA/PF}

There is an apparent contradiction in claiming that the verbs such as the ones in (201a-c) are, on the one hand, semantically bivalent and, on the other hand, affirming that they can take only one syntactic argument. There is, however, one morphosyntactic piece of evidence which supports this controversial analysis. These verbs are suffixed by the inverse marker. This confirms that such verbs are not monovalent since the inverse marker can be suffixed only to bivalent and trivalent verbs when they occur in clauses whose second or third selected argument outranks the first one in saliency. The inverse suffixes -j in (201a) and -ü in (201b-c) clearly show that the second semantic argument selected by these verbs (the Location) outranks the first one (the Theme) in saliency. The inverse pattern with nonagentive bivalent denominalized verbs is sketched in (202). The Theme appears in parenthesis to indicate that this argument is conflated in the verb stem.

(202)	<u>Inverse Pattern: Nonagentive Denominalized Verbs</u>			
	<u>Argument</u>	(Theme)	>	Location
	<u>Hierarchy:</u>			
	<u>Saliency</u>	High-ranking	>	Low-ranking
	<u>Hierarchy:</u>	Participant		Participant

It has been argued above that for the purpose of coding a clause as direct or inverse, all semantic arguments selected by a verb are ranked independently of their syntactic status or formal realization. In §2.1.3 above, the case of nonagentive bivalent verbs with an incorporated Theme was discussed. This NI construction is morphosyntactically very similar to the denominalized examples in (201). In both constructions the Theme stands as a non-core argument and the verb obligatorily follows the inverse pattern. As an illustration compare the pair of NI constructions in (203) with the pair of denominalized constructions in (204).

- (203) Nonagentive Bivalent Verb with Incorporated Theme
- a. tana:xtziyüp seme
 ta= na:x-tzi:yʔ-ü -pa seme
 B1(ABS)=dirt-stick -INV-INC.I a lot
 'The dirt really sticks to me.' {DICT}
- b. jaʔk ʔimoyküpə jaʔk pa:kaxʔitküpə
 jaʔ=k ʔi= mo:yʔ-küp-pe jaʔ=k
 3AN=AN A3(ERG)=give -PL3-INCI.T DEF=AN
- pa:kax-ʔit -küp-ü -pa+ʔ
 cow- have-PL3-INV-NF
 'They give it (the land) to the ones who have
 cattle.' {C6/59/38}

- (204) Nonagentive Bivalent Verb with Denominalized Theme
- a. xükü na:xʔaxüp seme
 xük ∅= na:x-ʔax -ü -pa seme
 beans B3 (ABS)=dirt-HAVE-INV-INCI.I a lot
 'There is a lot of dirt in the beans.' {DICT}
- b. jeʔk ʔiküʔjuyküp pa:kaxʔaxüpa:tük
 jeʔ =k ʔi= küʔ+juy-küp-pe
 that=AN A3 (ERG)=rent -PL3-INCT.I
- pa:kax-ʔax -ü -pa+ʔ-tük
 cow -HAVE-INV-NF -PL
 'They rent (their land) to the cattle farmers.'
 {C6/59/39}

Despite the morphosyntactic similarities between the verbs in (203) and the ones (204), the derived verbs na:xʔax and pa:kaxʔax cannot be considered cases of NI since the morpheme -ʔax cannot stand by itself as an independent verb stem. This is shown by the ill-formed structure in (205). Instead, the analytic counterpart of the embedded clause in (201a) is rendered by the verb ʔit 'have,' as shown in (205).

- (205) a. * taʔaxanüpak tuʔk majaʔw
 ta= ʔax -anüpa =ak tuk majaw
 B1 (ABS)=HAVE-INV+IRRI=AN one woman
 (Intended reading: 'I will have a wife.')
- b. taʔitanüpak tuʔk majaʔw
 ta= ʔit -anüpa =ak tuk majaw
 B1 (ABS)=have-INV+IRRI=AN one woman
 'I will have a wife.'

Thus, the noun in N-ʔax has a different status with respect to the noun in N-ʔi:yʔ and N-ʔat. The noun in N-ʔax counts as one of the two arguments sanctioned by the newly

created verb, whereas the noun in N-ʔi:yʔ and N-ʔat does not count as an argument of the verb. Two facts support this analysis. First, N-ʔax verbs carry an inverse suffix. This indicates that one of the two required arguments, which is never expressed by an external nominal or independent pronoun, is conflated in the verb. And second, adjectives and quantifiers occurring in the clause may modify the noun which is part of the verb stem. As an illustration, consider (206). Note that the quantifier paʔko 'many' modifies only the derived noun ʔawok 'offspring' and not the whole predication as is the case with NI constructions (see (203)).

- (206) taʔawokʔaxiy paʔko
 tan= ʔawok -ʔax -i -y paʔko
 A1 (ABS)=offspring-HAVE-COMD-INVD.C many
 'I have many children.' {lm3/122}
 * 'I have kids a lot.'

Eskimo-Aleut languages' (i.e., Greenlandic (Sadock 1991), Inuktitut (Allen 1996)) also present stranded modifiers which have scope of modification over the noun internal to the derived verb. The existence of stranded modifiers has been used by Sadock (1980, 1986, 1991) as evidence that denominal constructions are, in fact, cases of NI. This analysis presupposes that the noun internal to the denominal verb represents the head of a syntactic argument which

originated outside the verb. In the case of Olutec, there is no supporting evidence which indicates that the denominalized element stands for a syntactic argument (i.e., the derived noun does not trigger plural agreement on the verb, it cannot be relativized, and it cannot cross-reference a pronominal clitic on the verb). In addition to this, the morpheme ʔax is synchronically only a derivative affix and not an independent verb. However, what the Olutec data do show clearly is that a noun denominalized by -ʔax, such as ʔawok in (206), is one of the two semantic arguments sanctioned by the derived verb. This supports the claim that in Olutec, the valence of a verb is determined by the number of semantic arguments, independently of their syntactic realization within the clause.

4.4 The Morpheme tun 'do': From Verb to Denominalizer

The Olutec root tun is both an independent verb and a morpheme in the process of becoming a derivative suffix. Wichmann (1985:482) has reconstructed the form *tun as the verb root bearing the meaning 'do' for Proto-Mixe. In Olutec tun has the following meanings when functioning as a independent verb: 'do, make, construct, create, prepare, turn into'.

- (207) Tun as a Simple Verb Stem
- a. pero ?itumpe pro:wena?k yoxe
 pero ?i= tun-pe pro:we-nak yox+e
 but A3(ERG)=do -INCI.T poor -DIM work
 'But the little poor guy does the job.' {lm4/455}
- b. ?itunamak tanta:ta tantükü
 ?i= tun-am =ak tan= ta:ta tan= tük
 A3(ERG)=do -IRRI=AN A1(PSR)=grandson A1(PSR)=house
 'My grandson is going to build my house.'
 {aand/292}
- c. je? kakaw?upi mintunam
 je? kakaw-?upi min= tun-am
 that cocoa-corn drink A2(ERG)=do -IRRI
 'You are going to prepare the chocolate drink.'
 {mi2/154}
- d. na:xej xtuni kama jem
 na?kxej tax= tun-i kama je?+mü
 when C1(ERG)=do -COMD corn field there
 'When I planted a cornfield there.' (Lit. When I
made a cornfield there.) {mil/352}
- e. ?itunayuk ?i?unakü
 ?i= tun-ay -u =k ?i= ?unak
 A3(ERG)=do -APPL1-COMI=AN A3(PSR)=offspring
 'He got her pregnant.' (Lit. 'He made her son.')
- f. mü:yüwak nitunüp
 mü:yüw =ak ø= ni- tun-ü -pa
 lightning=AN B3(ABS)=RFLX-do -INV-INCI.I
 '(And that one is the one that goes up
 thundering), it turns into the lightning.'
 {C20/93/17}

The verb tun also forms Type I NI compounds which include an incorporated semantic theme (see §2.1.1). The resulting verb is intransitive. Compare the analytic transitive clauses (207a, b, d, e) with the NI constructions (208a-d). The agent in the analytic direct transitive

clauses is signaled by the ergative proclitic on the verb. In contrast, the agent in the direct NI intransitive clauses is signaled by the absolutive proclitic on the verb.

(208) Tun in Type I NI Constructions

- a. taʔutúw seme tyoxetuni
 ta= ʔut -ú -w seme tan= yox+e-tun-i
 B1 (ABS)=like-INV-COMI very A1 (ABS)=work -do -INCD
 'I really liked to work.' {lm3/45}
- b. te:kutúk ʔiminkúxi ʔitúktunkúxi jem
 te:ku -túk ʔi= mi:nʔ-kúx-i
 Zapotec-PL A3 (ABS)=come -PL3-COMD

 ʔi= túk- tun-kúx-i jeʔ+mú
 A3 (ABS)=house-do -PL3-INCD there
 'The Zapotecs came to house-build there.'
 {rp3/164}
- c. naʔkkek tankamatuni yamú
 naʔkxej=k tan= kama- tun-i yaʔ+mú
 when =AN A1 (ABS)=corn field-do -COMD here
 'When I corn-planted here.' {mil/300}
- d. ʔiʔunaktunkúxno jaʔ
 ʔi= ʔunak -tun-kúx-nú -e jaʔ
 A3 (ABS)=offspring-do -PL3-already-INCD 3AN
 '(He stayed there, he was already living there,)
 they (the man and his wife) were already having
 children.' {olul/278}

There is a second type of complex verb which includes either a noun or an adjective root preceding the morpheme tun. Examples of this second type are shown in (209a-c).

(209) Noun or Adjective Incorporation with Adverb-like Meaning

- a. mixuʔnitumpa
 mi= xuʔni-tun-pa
 B2 (ABS)=dog -DO -INCI.I
 'You are becoming difficult.' (Lit. 'You are acting as a dog.')

- b. pero jaʔme:k ʔijaytaʔnatuni
 pero jaʔmej =k ʔi= jaytaʔna -tun-i
 pero in that way=AN A3(ABS)=irritable-DO -INCD
 '[He does not talk] but in that way he gets mad.'
 {rp2/523}
- c. toyajtumpe tuʔk
 tan= ʔoyaj-tun-pe tuk
 A1(ERG)=good -DO -INCI.T one
 'I am fixing (repairing) one.' {id3/502}

This type of compound exhibits two properties which separate them from Type I NI constructions illustrated in (208). First, the target of incorporation in Type I NI compounds is the theme, which is part of the argument structure of the verb root. For instance, the noun tük 'house' in (208b) stands for the semantic theme of the verb tun 'do'. In the analytic counterpart, shown in (207b), the nominal tük is a core argument of the clause. In contrast, neither the noun xuʔni 'dog,' in (209a), nor the adjectives jaytaʔna 'irritable' and ʔoyaj 'good,' in (209b,c), are semantic arguments selected by the verb tun. The notion conveyed by xuʔni, jaytaʔna and ʔoyaj within these compounds is adverbial.²⁶ The literal translation of (209a) is 'you are acting as a dog' instead of 'you are making/doing a dog' which would be the expected outcome if the verb were a Type I NI compound. The same could be said of (209b), which does not mean 'he does irritable things' but 'he acts in an irritable way'. The meaning in (209c) is not 'I am doing a

good one' but 'I am making one good' or 'I am fixing one'. The second formal difference between Type I NI compounds and verb compounds which include a noun or an adjective with adverbial meaning is related to the transitivity of the outcome. Type I theme-incorporated compounds, such as the ones illustrated in (208), are always intransitive and cannot occur in reflexive or reciprocal constructions. In contrast, compounds of the second type may be intransitive, as in (209a,b) and (210a); or transitive (active), as in (209c) and (210b); and may occur in reciprocal constructions, as in (210d); and reflexive constructions, as in (210c).

(210) a. Intransitive

porke jaʔkü tankapayü ʔixiyu ʔitzukintuni
 porke jaʔ=k tan= kapay ʔix+ʔi:yʔ-u
 because DEF=AN A1(PSR)=sister_in_law begin -COMI

ʔi= tzukin-tun-i
 A3(ABS)=fight -DO -INCD

'Because my sister-in-law started to fight.'
 {aand/576}

b. Active Transitive

jaʔ san rramonsi:to ʔiʔa:ma:xantunamak jeʔ kama
 jaʔ san rramonsi:to
 DEF Saint Ramoncito

ʔi= ʔaw+ma:x+an-tun-am =ak jeʔ kama
 A3(ERG)=holy -DO -IRRI=AN that corn_field
 'Saint Ramoncito is going to bless that
 cornfield.' {rss11/12}

- c. Reflexive
 ?ü:tz taka?nikunuxtunüp
 ?ü:tz ta= ka:=ni- kunux-tun-ü -pa
 I B1 (ABS)=NEG=RFLX-cross-DO -INV-INCI.I
 'I do not cross myself.' {C9/24/296}
- d. Reciprocal
 ka? nu:nka tanitzukintuniyi:tü?s
 ka: nu:nka
 NEG never
- ta= ni- tzukin-tun-i -y -i:t -ütz
 B1 (ABS)=RECP-fight -DO -COMD-INVD.C-PL.SAP-EXCL
 'We never got into a fight.' {C9/77/668}

The morpheme tun in these examples is acting as a derivative morpheme that changes nouns and adjectives into transitive and intransitive verbs. It is very clear that the source of this reanalysis is an incorporating construction in which the targets of incorporation were nominal and adjectival stems with secondary predicate function.²⁷

There is a third set of complex predicates in which the morpheme tun also participates. All Spanish verbs which have been introduced into the Olutec lexicon are suffixed by tun. Within these complex predicates the Spanish verb occurs in the infinitive and it is immediately followed by tun. The pronominal markers and other verbal prefixes and proclitics precede the Spanish infinitive, whereas the aspect and other verbal suffixes and enclitics follow tun. This shows that the infinitive plus tun form a complex stem. The argument structure of these complex stems is determined by the

argument structure of the Spanish verb. Intransitive examples are given in (211a-d).

- (211) a. porke mas tadewilita:rtunaʔn
 porke mas tan= dewilita:r-tun-aʔn
 because more A1(ABS)=become weak-DO -IRR
 'Because I am going to get weaker.' {lm3/224}
- b. niʔixi yaʔaj ʔikamwya:rtuni tye:mpo
 niʔixi yaʔaj ʔi= kamwya:r-tun-i tye:mpo
 like this A3(ABS)=change -DO -INCD time
 '[...] like this time is changing.' {aandc/490}
- c. jeʔ teʔej rreyna:rtumpa chupi:pi
 jeʔ teʔej ø= rreyna:r-tun-pa chupi:pi
 that now B3(ABS)=reign -DO -INCI.I chupipe
 'Right now only the chupipe (type of root)
 predominates.' {mi2/141}
- d. ʔe:skapa:rtunupak yaʔk weka
 ø= ʔe:skapa:r-tun-nu -pa =k yaʔaj=ak
 B3(ABS)=escape -DO -already-INCI.I=AN this =AN
 weka
 frog
 'This frog is already escaping.' {id1/53}

Transitive complex verbs are given in (212). The examples (212a-c) follow the direct pattern. The examples (212d-f) follow the inverse pattern.

- (212) a. jemak xʔenamora:rtuni
 jeʔ+mü=ak tax= ʔenamora:r-tun-i
 there =AN C1(ERG)=woo -DO -COMD
 'I wooed her there.' {deaa/68}
- b. ta miʔalkila:rtumpe jeʔ
 ta min= ʔalkila:r-tun-pe jeʔ
 COND A2(ERG)=rent -DO -INCI.T that
 'If you are renting that one.' {aand/485}

- c. mü:t ?idestapa:rtumpek tankaya?n
 mü:t ?i= destapa:r-tun-pe =k tan= kay+an
 and A3(ERG)=uncover -DO -INCI.T=AN A1(PSR)=food
 'And he is uncovering my food.' {aand/105}
- d. tanko?pa?k takaja?ayuda:rtunüp ?oyamej
 tan= ko?pak
 A1(PSR)=head

 ta= ka:=ja:= ?ayuda:r-tun-ü -pa ?oyamej
 B1(ABS)=NEG=MIRAT=help -DO-INV-INCI.I properly
 'Because my head does not help me properly.'
 {id3/15}
- e. porke mitoka:rtunüw ya?aj wo:lanak yükükaj
 porke mi= toka:r-tun-ü -w ya?aj
 because B2(ABS)=draw -DO -INV-COMI this

 wo:la-nak yükük?aj
 ball -DIM black
 'Because you got (by luck) the little black ball.'
 {id3/619}
- f. para nicha?aj kujumikak ?ika:persegi:rtuna?nej
 para ni+chaj+?aj kujum+ik=ak
 for none sickness=AN

 ?i= ka:=persegi:r-tun-a?n+e+j
 A3(ABS)=NEG=chase -DO -INV+IRRD
 '[He is going to get blessed] so that there won't
 be any sickness which can attack him.' {rs10/29}

Complex predicates of this type have all the properties of transitive verbs. They can be passivized, as shown in (213).

- (213) ?iyak?anunsya:rtuni japoy ?itü
 ?i= yak- ?anunsya:r-tun-i japoy ?itü
 A3(ABS)=PASS-announce -DO -COMD morning TEMP
 'When it was announced in the morning.' {rs7/8}

They can occur in reflexive and reciprocal constructions, as shown in (214a-b).

- (214) a. tuʔk ʔinikwida:rtunaʔnej
 tuk ʔi= ni -kwida:r -tun-aʔn+e+j
 one A3(ABS)=RFLX-take care-DO -INV+IRRD
 '[When one gets sick it̄ is necessary] that one
 takes care of himself.' {lm3/67-8}
- b. ja:yajtük nipresenta:rtunküxüwaʔ yam
 ja:+yaʔ+tük
 the_others
 ø= ni -presenta:r-tun-küx-ü -w =jaʔ yaʔ+mü
 B3(ABS)=RECP-introduce-DO -PL3-INV-COMI=3AN here
 'The others introduced among themselves here.'
 {id3/558}

Finally, they can be further derived by other causatives and applicatives which introduce extra core arguments of different types.

- (215) a. Causative
 tyakdewilita:rtuna:m jeʔk yoʔjwa
 tan= yak- dewilita:r -tun-am jeʔ =k yoʔjwa
 A1(ERG)=CAUS-become weak-DO -IRRI that=AN man
 'I am going to make this man weak.'
- b. Associative
 tukak majaw ʔimü:rreyna:rtuna:mak weka
 tuk=ak majaw ʔi= mü:-rreyna:r-tun-am =ak weka
 one=AN woman A3(ERG)=ASSOC1-reign-DO -IRRI=AN frog
 'A woman is going to govern together with the
 frog.'
- c. Associative
 mintomoʔarreglartuna:maʔ
 min= toj+mü:-ʔarreglar-tun-am =jaʔ
 A2(ERG)=ASSOC2 -arrange -DO -IRRI=3AN
 'You and him are going to figure it out.' {rs8/4}
- d. Instrumental
 tantojpersegi:rtuna:mak tujaʔn
 tan= toj- persegi:r-tun-am =ak tujan
 A1(ERG)=INSTR-chase -DO -IRRI=AN gun
 'I am going to chase it with the gun.'

- e. Benefactive
 tantaya:rtunaype
 tan= taya:r-tun-ay -pe
 A1(ERG)=rub -DO -APPL1-INCI.T
 'I am giving massage (to his knee).' {aandc/462}

This type of construction is very common in the register of non-fluent speakers and semi-speakers who lack the rich lexicon accessible to fluent speakers. Verbs of this type cannot be analyzed as NI compounds since the Spanish infinitive does not stand for an argument of the morpheme tun. The argument structure of INFINITIVE+tun verbs is completely determined by the borrowed infinitive. Thus, it is clear that within these complex verbs, the morpheme tun has been reanalyzed as a derivative morpheme whose only function is to enable the borrowed verbs to be inflected in the same way as native verbs.

5. Conclusions

This chapter had two main purposes: First, to document, as thoroughly as possible, the various types of NI constructions and other related constructions present in Olutec; and second, to use Olutec data to examine the validity of some of the claims advanced by typologists and syntacticians with respect to NI.

The different Olutec NI constructions were classified using the typology suggested by Mithun in several of her works. Olutec exhibits the four major types of NI. Types I and II NI are very productive, whereas Types III and IV NI are only used in the speech of the most conservative speakers. This confirms the prediction advanced by Mithun according to which Type III and IV are the last ones to be learned and first ones to disappear in language death situations.

Olutec exhibits various NI constructions which have not been discussed in the literature dealing with NI. Among those are NI constructions with nonagentive bivalent (extended intransitive) verbs, i.e., verbs which include a theme and a location/experiencer in their argument structure. The examination of NI with this set of verbs makes it possible to determine the kind of verbal arguments which are taken into account when a clause is coded as direct or inverse. A clause is direct when the highest-ranking element in the argument hierarchy coincides with the highest-ranking element in the saliency hierarchy. Semantic themes outrank locations/experiencers within the argument hierarchy operating in Olutec. Speech act participants outrank third-person participants, and salient third-person participants outrank non-salient third-person participants

within the saliency hierarchy operating in Olutec. A clause is inverse when the highest-ranking element in the argument hierarchy does not coincide with the highest-ranking element in the saliency hierarchy. Nonagentive verbs with an incorporated theme are coded always as inverse. This is a clear indication that all semantic arguments, including the incorporated ones which are syntactically inert, are taken into account when a clause is coded as direct or inverse.

The type of outcome resulting from theme incorporation with derived and underived trivalent verbs has been analyzed by Mithun and Relational Grammarians as a case of "advancement". Olutec data show that the effect of NI with trivalent verbs varies depending on the specific semantic roles which intervene in the compound. The "advancement" analysis is validated only for cases in which the third participant is a locative argument. In Mithun's terms, this is a clear example of Type II NI. The same analysis cannot account for the outcome resulting when either a benefactive, recipient, comitative or instrument stands for the third participant selected by the verb. NI compounds of this type conform more closely with the Type I than with the Type II definition for two reasons: First, these compounds have one less core argument than their corresponding analytic counterpart; and second, the third participant is a core

argument in both the analytic and the incorporating construction. This makes the advancement analysis, part of the definition of Type II NI, unnecessary.

Olutec is one of the few languages of the world in which the agent of a transitive verb can be incorporated. Olutec exhibits Type I and Type II agent incorporation. The existence of this particular construction is of great interest for two reasons. First, most of the apparatus of the syntactic theory of NI developed by Baker (1988a, 1993, 1995, 1996) has been based on the erroneous assumption that there can be no language in the world where the agent incorporates to a transitive verb. Olutec is a language where low-ranking agents in saliency may get incorporated into the verb. Several pieces of evidence were brought forth to corroborate that, in fact, the IN is a true agent. A second point of interest refers to the fact that transitive verbs with incorporated agent follow an inverse pattern. In this construction, the agent, which is syntactically inert, is outranked in saliency by the theme, which is the only syntactic argument of the clause. The verb follows an inverse pattern since the highest-ranking element in the argument hierarchy (agent>theme) does not coincide with the highest-ranking element in the saliency hierarchy. This supports the claim that all of the participants selected by

the verb, independently of their syntactic status, are ranked in both the argument and saliency hierarchies which determine whether a clause is direct or inverse.

Other cases of NI that are attested in Olutec and that cannot be properly accounted for by Baker's theory are instrument, locative and secondary predicate incorporation.

The fact that NI is quite productive does not entail that it can be properly explained by the same formal rules that are used to account for the type of possible combinations of nouns and verbs in syntax. Various pieces of evidence support the lexicalist point of view defended by Mithun (1984) and Rosen (1989), according to which NI is a word formation process. While there are almost unlimited combinations of nouns and verbs occurring in non-incorporating constructions, there are a limited set of N+V combinations which are considered well-formed. The lexical view explains this restriction arguing that the well-formed N+V combinations represent the lexicalization of activities or states which are culturally relevant for the speakers of the language. In contrast, the syntactic theory cannot account for the fact that not all combinations are possible. If the predictions of the syntactic theory were correct for Olutec, the range of N+V combinations would be unrestricted since the only restriction posited by the theory is that the

IN occupies the object position in the analytic counterpart. The data present two additional problems for the syntactic view. First, certain NI compounds do not have analytic counterparts. These are frozen compounds that include old roots which do not exist as free-standing nouns or verbs. Second, in many of the cases the meaning of the NI compound cannot be accounted for in a compositional way, i.e., by the sum of the meaning of its parts. These idiosyncrasies are common to other well known word formation processes which cannot be handled using transformational rules which ignore diachronic reanalyzes both in terms of meaning and form.

The most fluent speakers of the language use NI to manipulate and maintain old information in the arena of discourse. Type III and Type IV are the least common types of NI in Olutec. The most frequent IN's within Type II, III, and IV are body-part terms. These nouns have been reanalyzed into a paradigm of classificatory affixes which specify the shape of one of the arguments selected by the verb. This type of reanalysis has been reported for other Middle American languages and languages of the Northwest of United States and Canada.

The last part of this chapter was an investigation of denominalized verbs. Several studies in Eskimo-Aleut

languages have argued that denominalized constructions should be considered equivalent to NI constructions. Eskimo denominalizers cannot stand as free-standing verbs and for that reason various analysts have rejected the NI analysis. Since Olutec has both constructions, NI and denominalization, it affords an excellent opportunity to study the similarities and differences between the two constructions. Some of the Olutec denominalizers grammaticalized from verbs and the source of reanalysis was a N+V construction. A detailed examination has shown that denominalized verbs cannot be considered NI constructions for two reasons. First, the verbalized noun is not part of the argument structure of the verb (with the exception of the structures with the denominalizer -ʔat 'HAVE'). And second, the denominalizer cannot function as a simple verb (with the exception of tun 'DO'). Semantically, the denominalized noun is interpreted as a secondary predicate. Thus, the construction resembles NI structures with secondary predicate interpretation. This kind of NI has not been studied in detail in any language nor has it been included in the typological discussion of NI. I am thinking of cases such as: "I snake-saw him", meaning "I saw him behaving as a snake or moving as a snake."

Notes

¹ Secondary predication represents a type of incorporation which has been ignored in the typological discussion of incorporating languages (cf. Mithun 1984, Rosen 1989, Baker 1988, 1997). However, Sapir (1911) in his pioneering work on incorporation, clearly recognized secondary predicate incorporation as a functionally distinct type. In his discussion he refers to it as "predicate subjective" and "predicate objective" incorporation. He provided several examples from different Amerindian languages and commented: "Examples occur in which the incorporated noun does not directly function as the subject of the verb but stands logically in a predicative relation to the subject or object. That is, such sentences as "he travels as a spy" and "I call him an enemy" may be converted into the noun-incorporating verbs "he spy-travels" or "spy-travels" (not equivalent in this case to spy travels") and "I-enemy-call-him" or "I-enemy-call" (not equivalent to "I call the enemy")." (Sapir 1911:258)

² Mardirussian (1975) has argued that the ban on proper names to incorporate is one of the universal characteristics of NI.

³ See Mithun 1984, Hopper and Thompson 1984, Rosen 1989 inter alia for discussion of this issue.

⁴ An animate noun remains within the category of animates whether the referent of the noun is dead or alive.

⁵ Agent noun incorporation is a productive process in Southern Tiwa according to Allen et al. (1984). These authors make reference to the existence of the phenomenon in other languages of the Tanoan family. Jemez, one of the Tanoan languages, exhibits agent noun incorporation (Ken Hale, personal communication). Axelrod (1990), Wilhelm (1992), and Cook and Wilhelm (1998) have discussed agent incorporation in the Athapaskan language Koyukon. Sasse (1984) has reported agent incorporation in Bonni, a Cushitic language spoken in Somalia. Evans (1996:86) reports that several Gunwinyguan languages spoken in the north of Australia, including Kunwinjku, Kunparlang and Nunggubuyu, allow transitive agent incorporation when such a participant

is inanimate. Myhill (1988) has offered an alternative analysis to what has traditionally been considered a passive in Indonesian as an agent incorporation construction.

⁶ In this paper Baker explicitly defines what syntactic role corresponds to the sister of a verb:

First, two argument verbs have their agents as subject and their themes as objects, not vice versa. Second, the object noun phrase is the phrase structure sister of the verb, while the subject is not. (Baker 1993:17)

⁷ Non-agentive bivalent verb roots became transitive verbs when they are derived by the causative prefix yak-, i.e., hold all the properties of transitive verb stems. For instance, the causative marker prefixed to tzi:y? 'stick' derives the transitive verb yak-tzi:y? 'grab'. This verb stem is inflected as a canonical transitive verb. In (i) the ergative signals the agent of the clause and -pe 'incompletive for transitives' is suffixed to the verb.

(i) ja:je?k chu:chunakü ?iyaktzi:pe je?kü ja:tukaj weka
 ja:je?=k chu:chunak ?i= yak- tzi:y?-pe je? =k
 other =AN little_boy A3(ERG)=CAUS-stick -INCI.T that=AN

ja:tuk?aj weka
 the_other_one frog
 'The other little boy is grabbing the other frog.'
 {rschl/555}

The derived verb also occurs in the reflexive construction.

(ii) jumük ?iyaknitzi?ij chu:chuna?k
 jumü =k ?i= yak- ni- tzi:y?-i -j
 where=AN A3(ABS)=CAUS-RFLX-stick -INCD-INVD.I

chu:chunak
 little_boy
 'From where did the boy grab himself?' {id1/239}

⁸ Added instruments of monotransitives are cross-referenced by the absolutive proclitic on the verb in inverse (i) and passive (ii) constructions.

- (i) ʔu:xukak tatojyopopüp
 ʔu:xuk =ak ta= toj- yopop -ü -pa
 small_mosquito=AN B1(ABS)=INSTR-get_excited-INV-INCI.I
 'The mosquitoes get excited over me.' {olu28/188}
- (ii) naʔkxej tanyojwaʔati jata tayaktojpetpa
 naʔkxej tan= yojwa-ʔat -i jata
 when A1(ABS)=man -consider-COMD right_away
- ta= yak- toj- pet -pa
 B1(ABS)= PASS-INSTR-ascend-INCI.I
 'When I was young I was climbed on immediately.'
 {C11a/59/765}

⁹ The inverse alternation in (87e) is triggered by the reflexive (see CH 3, §4.1.4).

¹⁰ The compound chuʔx-chikx [god-have under control] means 'to greet'.

¹¹ Recall that the ergative proclitic signals the agent of transitive clauses only in cases in which they follow the direct pattern. In contrast, the agent is left unmarked on the verb in clauses which follow the inverse pattern.

¹² Since Olutec is a head-marking and flexible word order language, two things have to be clarified with respect to the status of the two core arguments in (125): 1) They may not be expressed by external nouns, 2) when they are expressed by external nouns, these nouns do not follow a strict word order.

¹³ The PSR of agents of transitive verbs is an exceptional target for EPC cross-linguistically. Payne (1997:399) commenting on this issue affirms: "I am not aware of any languages for which it has been argued that an EP is expressed as a transitive subject. Rather, EP-as-object (whether Indirect or Direct) appears to be the most common pattern."

¹⁴ All the nouns referring to the PSM of agents which participate in this construction are inanimate.

¹⁵ The causative prefix yak- and the verb root tzi:yʔ 'stick' in (132b) form the agentive bivalent verb stem yaktzi:yʔ 'grab'.

¹⁶ Recall that independent clauses take a different set of absolutive proclitics with respect to dependent clauses. (137b) is an independent clause and takes the first-person absolutive ta=. (137a) is a dependent clause and takes the first-person absolutive tan=.

¹⁷ A construction similar to the one in (137a) has been analyzed as a prototypical case of possessor ascension in three other Mesoamerican languages: Tzotzil (Mayan) (Aissen 1979, 1987), Sierra Popoluca (Mixe-Zoquean) (Marlett 1986), and Huastec (Mayan) (Constable 1989). Olutec data do not support a possessor ascension analysis (cf. CH 6).

¹⁸ Recall that the only person marker on the verb in the inverse pattern is the absolutive proclitic.

¹⁹ This analysis has been defended by Allen et al for Southern Tiwa (1990), and by Weir for Nadëb (1990). Mithun (1984:859) presupposes this analysis for all cases of Type II NI.

²⁰ Salish and Wakashan languages present a large set of verbal affixes which evolved from independent nouns. Mithun (1997) and Gerds (1998) refer to them as 'lexical affixes'. A subset of these affixes developed from body-part terms incorporated to verb roots.

²¹ The glosses of the body-part prefixes are given in capital letters to indicate that they are grammatical morphemes with abstract meaning.

²² The form win also grammaticalized as a 'relational noun'. In this function win means 'on top of' or 'on'. Relational nouns are part of oblique locative phrases marked by one of the three general postpositions (-jem, -mü or -pi). An example of win used as a relational noun is given in (i).

- (i) jaytzü?na?k ?ijamatikü ?inina:petiya? ma:tükwinmü
 jaytzü?nak ?ijamatik ?inina:petiya? ma:j?tük-win-mü
 little_lady arrived jumped bed -top-LOC
 'The little old lady arrived and jumped on the bed.'
 {C20/12/48}

²³ The picture storybook Frog, Where are you? by M. Meyer (1969) was first used as a tool for eliciting narratives crosslinguistically by Slobin and associates (Slobin 1997).

²⁴ The gloss of these suffixes is given in capital letters in the examples.

²⁵ The denominalizer -ʔat is also found in other Mixean languages. In Coatlán Mixe for instance, -ʔat derives nouns, adjectives and Spanish loan words into intransitive and transitive verbs (Hoogshagen and Hoogshagen 1993). In Sayultec (Sayula Popoluca), Spanish infinitives are inflected as native verbs once they are derived by the suffix -ʔat (Clark 1961).

²⁶ Sapir (1911) was the first in recognizing this type of NI compounds which he termed: "predicate subjective" and "predicate objective". Compounds with adverbial and secondary predicate interpretation have been ignored within the typological literature of NI.

²⁷ The same type of reanalysis could be proposed for the denominalizers -ʔi:yʔ 'inchoative' and -ʔat 'BE, CONSIDER'. However, at this point we lack diachronic information which could confirm that these two denominalizers were verbs at some point in the history of Mixe-Zoquean languages.

CHAPTER VI

APPLICATIVE CONSTRUCTIONS

0. Introduction

In this chapter I discuss the various applicative constructions (henceforth AC) found in Olutec. The term applicative will be used here to refer to a construction in which a special morpheme is affixed to a verb in order to allow the coding of thematically peripheral participants as pragmatically salient arguments. This is not the standard definition of an AC. Syntactic theories that have dealt with similar phenomena (e.g. Relational Grammar, Government and Binding, and Lexical Functional Grammar) are much stricter with respect to what counts as a "true" AC. Within these theories, a true AC is limited to cases in which a peripheral argument becomes a syntactic object (cf. Aissen 1983, 1987, 1990; Chung 1976; Dryer 1983; Seiter 1979; Baker 1988a, 1988b; Alsina and Mchombo 1990, Bresnan and Moshi 1990, inter alia). Within cross-linguistic studies, AC's have been treated as valency increasing constructions since, in the canonical cases, they create a new syntactic argument position within the clause (Peterson 1998, 1999;

Mithun 1999, 2000; Dixon and Aikhenvald 2000). When an otherwise intransitive verb carries an applicative, the result is a transitive verb. When a transitive base verb includes an applied object, the result is in some cases a ditransitive verb. Another possibility for the derivation of transitive verbs has been discussed by Comrie (1985), and is also implicit in the Relational Grammar literature. Comrie has noted that, as a result of deriving a transitive verb by an applicative, the argument structure of the clause is rearranged in the sense that an applied object replaces the former object of the base verb, which becomes an oblique or an inert argument. In the definition I am using here, the change in the syntactic status from non-core to core argument is not a necessary condition for identifying AC's. It will be shown that under specific circumstances the applicative increases the verb valency, in others, it rearranges the argument structure of the clause, whereas still in others, it does not affect either the valency or the original argument structure of the base verb, but rather, only registers that the clause contains a pragmatically salient extra-thematic participant that is still non-core.

The participant introduced by the applicative as a pragmatically salient argument will be referred to as an

"applied argument." Olutec is a multiple applicative type of language (Peterson 1999). It exhibits six different applicative affixes. Five of them are prefixes and one of them is a suffix: -ja:y? 'benefactive, malefactive, recipient, locative,' küj- 'benefactive, malefactive,'¹ toj- 'instrumental, means' mü:- 'associative,' toj+mü:- 'associative,' toko 'purpose, reason.' The name assigned to each applicative morpheme refers to the canonical semantic role of the extra-thematic participant introduced by the applicative as a clausal argument. Cross-linguistically, the most common AC is the one that encodes benefactives, addressees, recipients and goals as PO's. The Olutec suffix -ja:y? exhibits this function. This is the only applicative that has been reconstructed for the common ancestor of Mixe-Zoquean languages. Associative and instrumental applicatives are also very common cross-linguistically and are also found in other Mixe-Zoquean and Middle-American languages. The other three Olutec applicatives exhibit functions that have not been reported in any other Mixe-Zoquean or Middle-American language and are cross-linguistically rare. These applicatives are: the malefactive/benefactive applicative for intransitive verbs; the associative applicative that also conjoins two noun phrases; and the reason/purpose applicative.

The study of Olutec applicatives is of special interest for comparative, cross-linguistic, and theoretical reasons. No other Middle-American language has been reported as having such a large inventory of applicative morphemes.² The use of Olutec applicatives is quite productive. Mithun (1989, 1999) has argued that applicatives are derivational morphemes whose use is lexically determined, i.e., not all verbs may take applicatives and the semantics of a verbal stem formed by a base verb and an applicative cannot be established compositionally. Contrary to Mithun's claim, Olutec applicatives may co-occur with any base verb. Any verb may be derived with an applicative when it occurs in a clause that contains a pragmatically salient peripheral participant. The AC's are obligatorily when the role of the peripheral argument is a benefactive, malefactive, addressee or recipient. In the majority of the cases, the meaning of the combination of applicative plus base verb is compositional.

Olutec is a language with multiple and asymmetrical objects. AC's are the canonical cases where the distribution of the object properties can be tested among the various non-subject core arguments of a clause. In languages with asymmetrical objects, a multiple-object type

of clause may have only one Primary Object, i.e., a syntactic argument that possesses most of the properties associated with the single object of a monotransitive clause. The other non-subject participants that exhibit some object properties have the status of Secondary Objects (Dryer 1986, Bresnan and Moshi 1990).

Olutec exhibits co-occurrences of different applicatives within the same base verb. These cases are of special interest for examining the crucial factors that determine which, among the various non-subject participants of the clause, possesses the majority of the syntactic features that identify a PO (Samkoe 1994).

In sum, Olutec applicatives may create changes in the transitivity of the clause, may change the original status of the licensed arguments of the base verb, and may code the applied argument as a core syntactic object. The morphosyntactic changes that occur in a clause having an applied argument vary depending on the original transitivity of the base verb, the topicality and animacy of the non-subject arguments involved, and the argument structure of the base verb. The factors that motivate the particular morphosyntactic profile of the various Olutec AC's will be amply discussed.

There are a variety of factors that trigger the use of AC's. Three will be discussed in detail in this chapter. First, some applicatives are obligatory when certain types of semantic participants non-licensed by the simple verb base are included in the clause. Recipients, benefactives, malefactives and addressees cannot be headed by an adposition, but instead, they are always expressed as applied arguments in Olutec. Second, the AC is also obligatorily used in syntactic contexts in which the extra-thematic argument is treated as a pragmatically salient participant, e.g. clefted constructions, relative clauses, questions and conjoined clauses in which the extra-thematic argument acts as clausal topic. And third, the AC is triggered in other contexts by semantic and pragmatic factors such as the inherent status of the extra-thematic arguments within a saliency hierarchy (human > animate > inanimate), or the topicality status of the non-subject arguments within a saliency hierarchy (most salient > least salient). When the extra-thematic argument outranks what would otherwise be the default object of the base verb in saliency, the verb is prefixed by an applicative.

Both the typological and the theoretically-driven research on AC's have focused on the study of isolated (and often elicited) sentences without any context. This type of

work has ignored the pragmatic motivations that trigger the use of AC's, i.e., most syntactic research has ignored the factors that determine the use of the AC over the non-applicative counterpart.³ Studies following this methodology have also ignored the origin and path of development of what synchronically is a canonical AC.

In the next sections each particular AC will be discussed. Particular attention is given to the semantic role of the applied object; the combinatory restrictions attested; the changes in transitivity of the base verb; the syntactic status of the base and applied object; the syntactic conditions that trigger the obligatory use of the AC; and the pragmatic and semantic factors that determinate the use of the AC instead of the construction in which the peripheral participant is marked as oblique. Constructions with multiple applicatives are also discussed. A summary of the findings is offered at the end of this chapter.

1. Ditransitive Clauses with the Applicative -ja:yʔ

Olutec shares with all Mixe-Zoquean languages the applicative suffix -ja:yʔ glossed as APPL1. This is the most frequent of all the applicatives within my corpus. The Olutec applicative -ja:yʔ exhibits four allomorphs: -ay,

-aʔ, -jay, -aʔx. The applicative -ja:yʔ increases the valency of the verb by one, bringing into core argument status benefactive, malefactive, recipient, locative, and addressee participants that are not selected as core arguments by the verb. For instance, the verb tu:tʔ 'put' is bivalent when it appears underived, as in (1a, b). In contrast, the verb tu:tʔ plus the applicative -ja:yʔ results in a verb with three core arguments, i.e., a verb with the meaning 'to put something on a place or person' or 'to take something to some place,' as in (1b). In the monotransitive construction, the theme stands as the Primary Object, (1a, b) whereas the extra-thematic locative stands as an oblique argument, marked by a postposition, (1b). In contrast, in the derived ditransitive construction, the theme stands as the Secondary Object (SO) and the locative stands as the Primary Object (PO) (Dryer 1986). That is, the suffix -ja:yʔ added to tu:tʔ brings into core argument status the extra-thematic locative under conditions that will be discussed below.

(1) a. Monotransitive without a Third Participant

yaʔmextikak ʔinü:nü tatuʔti
 yaʔmextik=ak ʔi= nü:nü ta= tu:tʔ-i
 this_size=AN A3(PSR)=tortilla C3(ERG)=put -INCD
 'He used to make his tortillas this big.'
 {rp3/631}

b. Third Participant is Oblique

nükxanak tatu?ti nü:nü kama?p
 nüx-an =ak ta= tu:t?-i nü:nü
 go -IRRD=AN C3(ERG)=put -INCD tortilla

kama -pi
 corn_field-LOC

'He is going to take the tortillas to the corn field.' {desob/30}

c. Third Participant is an Applied Argument

?inükxixü?k tatu:te?k nü:nü ?iyowe
 ?i= nüx-i =xü=k ta= tu:t?-a? -i =k
 A3(ABS)=go-COMD=EV=AN C3(ERG)=put -APPL1-INCD=AN

nü:nü ?i= yowe
 tortilla A3(PSR)=husband

'She went to take the tortillas to her husband.'
 {rayo/46}

Transitive clauses with a possessed theme can be paraphrased with ditransitive clauses in which the verb root is suffixed with -ja:y?. Applicative ditransitive clauses of this type have an external possessor (EP) interpretation (Zavala 1999). (2b) and (3b) are the applicative counterparts of (2a) and (3a). In the EP ditransitive construction, the semantic possessor is expressed in two slots: a) as internal possessor of the SO, and b) as the PO of the clause. In (2b), the semantic possessor is marked on the possessum, kü?, by the the third-person proclitic, ?i=. The coreferential nominal expression jama:k ?a:nima 'that dead person' is the PO of the clause. In (3b) the semantic second-person possessor is

marked on the possessed noun tük 'house'. In the same clause the second-person functions as PO.

(2) a. Internal Possessor Construction

ʔikaynyüpak ʔijüpü
 ʔi= kay-nü -pe =k ʔi= jüp
 A3(ERG)=eat-already-INCI.T=AN A3(PSR)=nose
 'It (the bird) is already eating his nose (of a
 dead person).' {rsch2/290}

b. External Possessor Construction

ʔikayaype jaʔ ʔiküʔ jama:k ʔa:nima
 ʔi= kay-ay -pe jaʔ
 A3(ERG)=eat-APPL1-INCI.T DEF

 ʔi= küʔ jamaj=k ʔa:nima
 A3(PSR)=hand that =AN dead_person
 'It (the bird) is eating that dead person's
 hand.' {rsch2/304}

(3) a. jeʔk ʔijuyam minka:xa
 jeʔ =k ʔi= juy-am min= ka:xa
 that=AN A3(ERG)=buy-IRRI A2(PSR)=coffin
 'He is going to buy your coffin (when you die).'

b. mi:sü taxjuyayuʔaʔ mintükü
 mi:tz tax= juy-ay -u -ʔaʔ min= түк
 you C1(LOCAL)=buy-APPL1-COMI-PERF A2(PSR)=house
 'I have bought you your house.' {vg3/193}

Equivalent constructions to the ones in (2b) and (3b) have been analyzed as "possessor raising" or "possessor ascension" constructions in three Middle-American languages: Tzotzil (Aissen (1979, 1983)), Sierra Popoluca (Marlett (1986)), and Huastec (Constable (1989)). In §1.4.2

and §1.4.3 I will show that the "raising" analysis cannot be posited for Olutec.

The suffix -ja:yʔ also occurs marginally with monovalent roots.⁴ Intransitive clauses with a theme and a possessed location can be paraphrased by transitive clauses in which the monovalent root is suffixed with -ja:yʔ. In this type of clause, the semantic possessor is expressed in two slots: a) as internal possessor of the locative phrase (tan= on tük in (4b)), and b) as the second direct core argument of the clause (indicated by ta= on the verb in (4b)). (4b) is the applicative counterpart of (4a).

- (4) a. ʔituk xi:mu tantükümü
 ∅= ʔit -u =k xi:mu tan= түк -mü
 B3 (ABS)=exist-COM=AN Simon A1 (PSR)=house-LOC
 'Simon was in my house.'
- b. taʔitaʔxüwak xi:mu tantükümü
 ta= ʔit -aʔx -ü -w =ak xi:mu
 B1 (ABS)=exist-APPL1-INV-COM=AN Simon

 tan= түк -mü
 A1 (PSR)=house-LOC
 'Simon was in my house.'

The cognate applicative marker shared by other Mixe-Zoquean languages has not been reported to be used in constructions with monovalent roots, as in (4b). Mayan languages that exhibit the benefactive applicative also do not share this last use.

Many other Middle-American languages exhibit an applicative that brings into core argument status a third extra-thematic participant (i.e., they occur on bivalent base verbs). Among the cases that have been most thoroughly documented are the Mayan languages Tzotzil (Aissen 1979, 1983, 1987) and Huastec (Constable 1989), the Mixe-Zoquean language Sierra Popoluca (Marlett 1986), the Uto-Aztecan languages Huichol (Comrie 1982) and Southeastern Tepehuan (Willet 1981), and the Totonacan language Tepehua (Watters 1988, 1989, 1996). Similar AC's appear in other language families all over the world. The "benefactive" AC has been amply documented within the Bantu language family (cf. Alsina and Mchombo (1990); Bresnan and Moshi (1990); Dryer (1983); Hyman and Duranti (1982); Kimenyi (1980); Morolong and Hyman (1977); Peterson (1996), *inter alia*). The equivalent construction has also been discussed for many Austronesian (cf. Bell (1983); Chung (1983), *inter alia*); Australian (Austin (1997), *inter alia*); Tibeto-Burman (Peterson (1998), *inter alia*); and Amerindian languages (cf. Wise (1971), Rude (1985, 1986a, 1986b, 1992), Ichihashi-Nakayama (1996), Mithun (1999, 2000), *inter alia*).

The purpose of this section is to document the different functions of the applicative -ja:y?. Certain bivalent verbs require the applicative in all contexts in which an

affected participant is involved. Other bivalent verbs optionally take the applicative, depending on the animacy and saliency of the third participant involved in the clause. The syntactic status of each of the two objects occurring in the ditransitive construction will be discussed using coding and behavioral syntactic properties. In order to understand the syntactic properties of the two objects within a double object construction with a derived verb, I will describe, first, another double object construction containing the verb mo:yʔ 'give,' which does not include an applied object.

1.1. The trivalent verb mo:yʔ 'give'

The only non-derived trivalent verb in Olutec is mo:yʔ 'give.' This verb may participate in monotransitive and ditransitive clauses. An agent and a theme are the two core arguments of the monotransitive type of clause. The agent is signaled by the ergative on the verb, in the direct construction, as in (5a, b).

- (5) a. taxmoyi primeʔr yaʔxi
 tax= mo:yʔ-i primer ya:xʔ-i
 C1(ERG)=give -COMD first shout-NMZR
 'I screamed first.' (Lit. 'I gave the first
 cry.') {olu4/157}

- b. jeʔkeʔ koʔpaktumpaʔ ʔimoykükxpek tujaʔn
 jeʔ =k =jeʔ koʔpak+tun+pa+ʔ
 that=AN=CLEFT leader

ʔi= mo:yʔ-kük-pe =k tuj+an
 A3(ERG)=give -PL3-INCI.T=AN gun
 'That leader used to give guns.' {vg/746}

The theme is cross-referenced by the absolutive in the inverse, (6a), and in the passive, (6b). When the theme is third-person plural, the plural marker -kük may be suffixed to mo:yʔ, as in (5b).⁵

(6) a. Inverse

jeʔ chu:chunaʔk moyüwak ʔitzü
jeʔ chu:chu-nak ø= mo:yʔ-ü -w =ak
 that child -DIM B3(ABS)=give -INV-COMI=AN

ʔi= tzü
 A3(PSR)=mother
 'The mother of that kid gave him away.'

b. Passive

primeʔr yaʔxi ʔiyakmoyi
primer ya:xʔ+i ʔi= yak- mo:yʔ-i
 first shout A3(ABS)=PASS-give -COMD
 'The first bark was produced.' {olu26/93}

Thus, when there are only an agent and a theme involved in the clause, the resulting construction is monotransitive, having the agent as the subject and the theme as the primary object.

An agent, a theme, and a recipient are the three core arguments of the ditransitive clause with the verb mo:yʔ.

When these three participants are involved, the distribution of the syntactic slots has to follow the following pattern: the agent functions as the subject, the theme as the SO, and the recipient as the PO. The order in which the nominals occur is flexible in both monotransitives and ditransitives. All possible combinations are attested in the corpus. The agent is signaled by the ergative on the verb in the direct construction, as in (7a-c).

- (7) a. mhmh ʔasta kajchanü:nü tamoyu
 mhmh ʔasta kajcha+nü:nü tan= mo:yʔ-u
 mhmh even bread A1(ERG)=give -COMI
 'Mhmh, I even gave him bread.' {rs6/93}
- b. yaʔk naʔwunakü mimoʔa:mak ʔampanü:jü
 yaʔ =ak naʔw -ʔunak min= mo:yʔ-am =ak
 this=AN old_man-DIM A2(ERG)=give -IRRI=AN
 ʔan+pa+nü:
 hard_liquor
 'You are going to give this little old man hard liquor.' {compa/45}
- c. tamoyi ʔimaʔtzu koʔke
ta= mo:yʔ-i ʔi= maʔtzu koʔke
 C3(ERG)=give -COMD A3(PSR)=lover fish
 'She gave her lover fish.' {pesca/183}

When the reference of the agent is plural, a plural marker is suffixed to the verb. The suffix -(V):t appears when the plural agent is a speech act participant, (8a, b). The

suffix -kùx appears when the plural agent is third person, (8c).

- (8) a. tamoype:tusak
 tan= mo:yʔ-pe -:t -ütz =ak
 A1(ERG)=give -INCI.T-PL.SAP-EXCL=AN
 'We (exclusive) are giving him (food).' {lm4/595}
- b. jemxü moʔa:t ʔirrefre:sko
 jeʔ+mü=xü mo:yʔ-a -:t ʔi= rrefre:sko
 there =EV give -IMPR-PL.SAP A3(PSR)=soft drink
 'Y'all give him his soft drink!' {rs8/193}
- d. jeʔ ʔu:rak tamoyküxi ʔikoʔpanü
 jeʔ ʔu:ra=k ta= mo:yʔ-kùx-i ʔi= koʔpan
 that hour=AN C3(ERG)=give-PL3-COMD A3(PSR)=hat
 'At that time they gave him his hat.' {vg/212}

The theme is not expressed by pronominal proclitics on the verb. However, there are three properties associated with core arguments that are still shared by the theme. First, the nominal expressing the clausal theme appears unflagged, i.e., without being marked by an adposition, as in (7a-c) and (8b, c). Agents and recipient also share this property. Second, the theme relativizes with the same gapping strategy used by core arguments. Relative clauses of core arguments are nominalized structures. In this type of construction, the relativized argument is not expressed by a noun or pronoun within the relative clause (RC). The semantic theme appears relativized in both (9a) and (9b).

The verb within the RC in (9a) is active, whereas the one in (9b) is passive.

- (9) a. jaʔk ʔipükü ʔimoyuʔaʔ puʔjuyu
 jaʔ=k ʔi= pük
 DEF=AN A3(PSR)=feather
 [ʔi= mo:yʔ-u -ʔaʔ puʔjuyu]
 A3(ERG)=give -COMI-NMZR roadrunner
 'The feathers that the roadrunner gave to him.'
 {zopil/197}
- b. tukak wekanaʔk yakmoyuʔaʔ
 tuk=ak weka-nak [ø= yak- mo:yʔ-u -ʔaʔ]
 one=AN frog-DIM B3(ABS)=PASS-give -COMI-NMZR
 'A little frog that was given to him.' {id2/229}

And third, the third-person plural theme may trigger third-person plural marking on the verb as do recipients (cf. (17)).

- (10) tanmoyküxuk mesko kawa:yu le:ncho
 tan= mo:yʔ-küx-u =k metzko kawa:yu le:ncho
 A1(ERG)=give -3PL-COM=AN two horse Lencho
 'I brought two horses to Lencho.'

Obliques and syntactically inert arguments do not share these three properties. Obliques are marked by adpositions (11), are relativized using relative pronouns internal to finite RC's (12), and cannot be cross-referenced by a plural marker on the verb, as shown by the ill-formed construction in (13b).

- (11) tankoʔpakpi taxtu:ti
 tan= koʔpak-pi tax= tu:tʔ-i
 A1(PSR)=head -LOC C1(ERG)=put -COMD
 'I put it on my head.' {rp2/111}
- (12) yaʔaj ʔikaxununaʔk jumük xtuʔtaʔn
 yaʔaj ʔi= kaxun-ʔunak
 this A3(PSR)=box -DIM

 [jumü=k tax= tu:tʔ-aʔn]
 where=AN C1(ERG)=put -IRRD
 'The little box where I am going to put it.'
 {abeja/118}
- (13) a. tantu:tnüw me:xatükpi
 tan= tu:tʔ-nü -w me:xa-tük-pi
 A1(ERG)=put -already-COMI table-PL -LOC
 'I already put it (the food) on the tables.'
 {rp2/149}
- b. * tantu:tküxnüw me:xatükpi
 tan= tu:tʔ-küx-nü -w me:xa-tük-pi
 A1(ERG)=put -PL3-already-COMI table-PL -LOC'
 (Intended reading: 'I already put it (the food)
on the tables.')

Syntactically inert arguments, such as incorporated themes, cannot be relativized, cannot be cross-referenced by the plural marker on the verb, and cannot appear modified by adjectives or other noun modifiers. When the theme of the verb mo:yʔ incorporates the resulting clause is monotransitive and not ditransitive. Examples of NI constructions based on mo:yʔ with a syntactically inert theme are shown below (see also CH. 6, §2.1.2):

- (14) a. tanü:nümoypek ?i:tzümü
 tan= nü:nü- mo:y?-pe =k ?i:tzümü
 A1(ERG)=tortilla-give -INCI.T=AN pig
 'I am feeding the pigs tortillas.' {DICT}
- b. ?ü:s tanka:japajamoype
 ?ü:tz tan= ka:=ja= pajam- mo:y?-pe
 I A1(ERG)=NEG=MIRAT=strength-give -INCI.T
 'I cannot hold it anymore.' {olu28/817}
- c. tayoxemoyüwak
 ta= yox+e-mo:y?-ü -w =ak
 B1(ABS)=work-give -INV-COMI=AN
 'He gave me a job.' {DICT}
- d. mixrrasonmo?a?nakü
 mix= rrason-mo:y?-a?n =ak
 C2(ERG)=advise-give -IRR=AN
 'You will advise him.' {mil/18}

Thus, the theme of ditransitive clauses is a syntactic object of some sort since it exhibits three of the properties that are exclusive to core arguments. In addition, there is a syntactic rule that operates only with the theme of both ditransitive and monotransitive clauses. The quantifier binding rule treats the theme of ditransitives in the same manner as the only object of monotransitives. Under this rule, out of the two objects involved in a ditransitive clause, only the theme can bind with preverbal quantifiers. This is illustrated in (15a-c) where the reading in which the quantifier binds the recipient is ruled out.

- (15) a. mesko tamoyi kuytũm
metzko ta= mo:yʔ-i kuytũm
 two C3(ERG)=give -COMD avocado
 'He gave them two avocados.' {rspf1/354}
 (NOT: 'He gave avocados to the two of them.')
- b. tuʔk moʔaʔk tzoyũ
tuk mo:yʔ-a -k tzoy
 one give -IMPR-INV.LOCAL medicine
 'Give me a medicine.' {rs4/235}
- c. tukok taxmoʔam chu:chuʔaj taʔunaʔk
tuk=koj =k tax= mo:yʔ-am chu:chu+ʔaj
 one=just=AN C1(LOCAL)=give -IRRI small_one
 tan= ʔunak
 A1(PSR)=offspring
 'I will give you only a little one, my son.'
 {rsch/706}
 (NOT: 'I will give a little one only to one of
 you, my sons.')

On the other hand, there are three syntactic rules that apply in the same manner to the single object of monotransitives and the recipient of ditransitives including the verb mo:yʔ. These rules make it clear that the recipient functions as the clausal PO.

First, the recipient is overtly marked by the pronominal proclitic on the verb in the inverse, as in (16a-d). The theme of ditransitives is never cross-referenced by the absolutive proclitic.⁶

- (16) a. yaʔkũ tamoyũwaʔ chi:nu
 yaʔ =k ta= mo:yʔ-ũ -w -aʔ chi:nu
 this=AN B1(ABS)=give -INV-COMI-NMZR honey
 'This one who gave me honey.' {abeja/135}

- b. xmoʔa:mak küjtuʔk minpükü
tax= mo:yʔ-am -ak küj- tuk
 C1 (LOCAL)=give -IRRI-INV.LOCAL each-one

 min= pük
 A2 (PSR)=feather
 'You are going to give me your feathers, one by one.' {zopil/55}
- c. yaʔk katari:no mika:moʔanüpak niti
 yaʔ =ak katari:no mi= ka:=mo:yʔ-an+ü+pa =k
 this=AN Catarino B2 (ABS)=NEG=give -INV+IRRI=AN

 ni- ti
 NEG-thing
 'Catarino is not going to give you anything.'
 {aand2/44}
- d. jeʔ koʔyaj moyüwak me:nyu
 jeʔ koʔyaj ø= mo:yʔ-ü -w =ak me:nyu
 that devil B3 (ABS)=give -INV-COMI=AN money
 'The devil gave him money.' {olu4/270}

When the reference of the recipient is plural, a plural marker is suffixed to the verb.⁷

- (17) a. tza:teküsampoʔk chaʔaj chuʔux tamoyüpa:tüʔs
 tza:+tek-ütz =ʔampok chaʔaj chuʔux
 we -EXCL=also which God

 ta= mo:yʔ-ü -pa -:t -ütz
 B1 (ABS)=give -INV-INCI.I-PL.SAP-EXCL
 'Whatever God gives to us too.' {rs8/196}
- b. chaʔaj chuʔux mimoyüpa:t
 chaʔaj chuʔux mi= mo:yʔ-ü -pa -:t
 which God B2 (ABS)=give -INV-INCI.I-PL.SAP
 'Whatever God gives y'all.' {rs8/194}

- c. jeʔ ʔu:rak ʔimoyküxiyampokak jamaj kuytüm
 jeʔ ʔu:ra=k ʔi= mo:yʔ-küx-i -y
 that hour =AN A3 (ABS)=give -PL3-COMD-INVD.C
 =ʔampok=ak jamaj kuytüm
 =also =AN that avocado
 'At that time, he also gave them that avocado.'
 {vg/213}

Second, the recipient of mo:yʔ functions as the subject of passives. The theme of ditransitive clauses never functions as subject of passives. In the passive examples shown in (18a-c), the subject is marked on the verb with the absolutive proclitic. In all these examples the recipient is cross-referenced by the absolutive.⁸

- (18) a. wope tyakmoyi
 wop+e tan= yak- mo:yʔ-i
 hit A1 (ABS)=PASS-give -COMD
 'I was hit.' (Lit. 'I was given hits.')
- b. yampaʔ miyakmoʔe
 yampaʔ min= yak- mo:yʔ-e
 this_much A2 (ABS)=PASS-give -INCD
 'You are given this much.' {lm3/622}
- c. ʔampanü:jü ʔiyakmoyi naʔwunaʔk
 ʔan+pa+nü: ʔi= yak- mo:yʔ-i naʔw -ʔunak
 hard_liquor A3 (ABS)=PASS-give -INCD old_man-DIM
 'The little old man was given hard liquor.'
 {compa/50}

When a passive clause contains a plural recipient, a plural marker appears suffixed to the verb cross-referencing the recipient.

- (19) a. jeʔkoj miyakmoypa:t
 jeʔ =koj mi= yak- mo:yʔ-pa -:t
 that=just B2(ABS)=PASS-give -INCI.I-PL.SAP
 'Y'all are being given only that.' {aand2/24}
- b. yakmoyküxuk xowatzüʔpi
ø= yak- mo:yʔ-küx-u =k xowa+tzü:pʔ+i
 B3(ABS)=PASS-give -PL3-COMI=AN chonegue leaf
 'They were given chonegue (type of food).'
 {lm4/516}

And third, the agent binds with the recipient in reflexives (20a, b) and reciprocals (20c) of clauses containing mo:yʔ.

- (20) a. minimoyüw gu:sto
mi= ni- mo:yʔ-ü -w gu:sto
 B2(ABS)=RFLX-give -INV-COMI pleasure
 'You enjoyed yourself.' (Lit. 'You gave yourself pleasure.') {vg2/348}
- b. ʔite:ku nimoyüwak kwe:nta
 ʔi= te:ku ø= ni- mo:yʔ-ü -w =ak
 A3(PSR)=master B3(ABS)=RFLX-give -INV-COMI=AN

 kwe:nta
 consideration
 'His master figured it out by himself.'
 {abeja/105}'
- c. ʔoyame:k ʔinimoyküxiy
 ʔoyamej =k ʔi= ni- mo:yʔ-küx-i -y
 properly=AN A3(ABS)=RECP-give -PL3-COMD-INVD.C
 'They hit each other forcefully.' (Lit. They gave each other [hits].') {rschl/91}

The recipient of mo:yʔ is always expressed as the PO of the clause, i.e., there is no alternation in which the recipient is expressed as an indirect object with oblique status. There is no native apposition to express

beneficiary, dative, or recipient. None of the locative postpositions may be suffixed to the recipient nominal expression. Although the language users have borrowed several prepositions from Spanish, the form a 'to,' which is used to mark the recipient in the Spanish indirect object construction, is absent in the Olutec repertoire of borrowed adpositions. When a recipient of the verb mo:y? is an argument of the clause, the construction has to be coded as ditransitive.

In sum, the comparison of the properties and rules that apply only to the theme with the ones that apply only to the recipient shows that both objects are syntactically active but are asymmetrical (Bresnan and Moshi 1990). I thus conclude that the theme of ditransitives functions as a SO whereas the recipient functions as a PO.

1.2. Ditransitive Clauses with Derived Verbs

Ditransitive clauses in which a benefactive, malefactive, addressee, recipient or location is involved are the most frequent Olutec AC's. The bivalent verb root must be derived by the applicative -ja:y? to participate in this type of construction. For examples, transitive clauses

with a bivalent verb like tun 'do, prepare' may take only two core arguments, (21a). When a third core argument is included in the clause, the verb root is followed by -ja:y?, (21b). Aside from mo:y? 'give,' double object constructions without the applicative are ill-formed, (21c).

- (21) a. tatuni je?k tzana?y je?k majaw
 ta= tun -i je? =k tzana?y je?=k majaw
 C3(ERG)=prepare-COMD that=AN snake that=AN woman
 'That woman prepared that snake.' {rs4/207}
- b. ja?ke? minkumpa:ne tantunayu kaye
 ja?=k =je? min= kumpa:ne
 DEF=AN=CLEFT A2(PSR)=friend
- tan= tun -ay -u kay+e
 A1(ERG)=prepare-APPL1-COMI food
 'It is for your friend that I prepared food.'
 {olu2/80}
- c. * ja?ke? minkumpa:ne tantunayu kaye
 ja?=k =je? min= kumpa:ne
 DEF=AN=CLEFT A2(PSR)=friend
- tan= tun -u kay+e
 A1(ERG)=prepare-COMI food
 (Intended reading: 'For your friend I prepared
 food.')

The following are additional pairs that contrast transitive vs. ditransitive clauses that share the same verb root. All the verbs of the ditransitive counterparts are suffixed with one of the four allomorphs of -ja:y?.

- (22) a. tato:küxi kaye
 ta= to:k-küx-i kay+e
 C3(ERG)=sell-PL3-INCD food
 'They are selling food.' {milagro/36}
- b. tu?k wi:no tanto:ka?xiy pro:wena?k
 tuk wi:no tan= to:k-a?x -i -y
 one potion A1(ABS)=sell-APPL1-COMD-INVD.C

 pro:we-nak
 poor -DIM
 'The little poor (guy) sold me one potion.'
 {aandc/433}
- (23) a. jamaj jayka?k ?ixi? tyaknaxe yu?u?k
 jamaj jaykak ?ix+?i:y?-i
 that people begin -COMD

 ta= yak- nax -e yu?k
 C3(ERG)=CAUS-cross-INCD pot
 'Those people began moving the pots across.'
 {zopil/23}
- b. tyaknaxa?amak ya?aj me:nyu tanmajaw
 tan= yak- nax -a? -am =ak ya?aj me:nyu
 A1(ERG)=CAUS-cross-APPL1-IRRI=AN this money

 tan= majaw
 A1(PSR)=woman
 'I am going to pass this money to that woman.'
 {olu9/93}
- (24) a. ?ijuykükükü jaykako?ke
 ?i= juy-küx-u =k jaykak+ko?ke
 A3(ERG)=buy-PL3-COMI=AN sea_bass
 'They bought sea bass.' {viaj3/51}
- b. tajuyayik tzu?chi
 ta= juy-ay -i =k tzu?tz+i
 C3(ERG)=buy-APPL1-COMD=AN meat
 'He_i bought meat for him_j.' {olu5/66}

- (25) a. taxmü:mini tuku xko:puji
 tax= mü:- mi:nʔ-i tuku
 C1(ERG)=ASSOC1-come -COMD cloth

 tax= ko:+puj-i
 C1(ERG)=wash -COMD
 'I brought the clothes and washed them.'
 {rp2/559}
- b. xko:pujaʔamaʔk tuku
 tax= ko:+puj-aʔ -am -ak tuku
 C1(LOCAL)=wash -APPL1-IRRI-INV.LOCAL cloth
 'You are going to wash the cloth for me.'
 {rp2/554}
- (26) a. tanümam ja:tuʔk kwe:ntonaʔk
 tan= nüm -am ja:+tuk kwe:nto-nak
 A1(ERG)=tell-IRRI another story -DIM
 'I am going to tell another little story.'
 {burdel/2}
- b. jeʔk tanümaʔxüw tantükaw
 jeʔ =k ta= nüm -aʔx -ü -w
 that=AN B1(ABS)=tell-APPL1-INV-COMI

 tan= tükaw
 A1(PSR)=father
 'My father told me that.' {viaj2/237}
- (27) a. keʔpe: ʔiyaktüki:pe ʔiküʔ
 keʔpe: ʔi= yak- tük+ʔi:yʔ-pe ʔi= küʔ
 ADM A3(ERG)=CAUS-enter -INCI.T A3(PSR)=hand
 'Look at this! He is putting his hand inside.'
 {vg2/248}
- b. tyaktüki:küxayi tuji
 ta= yak- tük+ʔi:yʔ-küx-ay -i tuj+i
 C3(ERG)=CAUS-enter -PL3-APPL1-COMD shot
 'They shot at him.' (Lit. 'They put a shot on
him.') {aand/764}

The specific semantic role of the third argument of a derived ditransitive verb depends on the inherent semantics of the verbal stem and the participants involved in the

clause. The applied argument is a semantic recipient when the applicative is suffixed to verbs like to:k 'sell' (22b), yaknax 'pass' (23b), mü:mi:n? 'bring' (28a), tzo:k? (28b), yaktij 'leave' (28c), tzak 'send' (28d), etc.

- (28) a. tamü:minayi kawa?k
 ta= mü:- mi:n?-ay -i kawak
 C3(ERG)=ASSOC1-come -APPL1-COMD banana
 'He brought him bananas.' {rspf2/618}
- b. minuk xtzo:ke?k tu?k majaw
 mi:n?-u =k tax= tzo:k?-a? -i =k tuk
 come -COMI=AN C1(ERG)=pay -APPL1-INCD=AN one

 majaw
 woman
 'I came to pay (what I owe) to a woman.'
 {olu6/170}
- c. taxyaktija?am yam me:nyu
 tax= yak- tij -a? -am ya?+mü me:nyu
 C1(LOCAL)=CAUS-stay-APPL1-IRRI here money
 'I am going to leave the money here for you.'
 {olu6/234}
- d. tatzakayixü?k ?ima?tzu je? ko?ke
 ta= tzak-ay -i =xü=k ?i= ma?tzu je?
 C3(ERG)=send-APPL1-COMD=EV=AN A3(PSR)=lover that

 ko?ke
 fish
 'She sent that fish to her lover.' {pesca/156}

The third argument is interpreted as bearing the semantic role of a benefactive when the action performed by the agent on a theme is something that is desired by the applied argument. The semantic role of benefactive is

obtained with verbs like tun 'do, make, prepare' (21b), juy 'buy' (24b), ko:+puj 'wash' (25b), ?ükx 'shell corn' (29a), kep 'look for' (29b), mo?tz 'grind' (29c), among others.

- (29) a. taxka:?ükxa?am pi:nakü
 tax= ka:=?ükx -a? -am pi:nak
 C1 (LOCAL)=NEG=shell corn-APPL1-IRRI a little
 'I am going to shell not even a little bit of
 corn for you.' {olu28/135}
- b. jumü pa:k xkepa?an tzu?chi
 jumü pa:k tax= kep -a? -an tzu?tz+i
 where 3AN C1 (ERG)=look for-APPL1-IRRD meat
 'Where am I going to look for meat for him?'
 {aand/244}
- c. mimo?tza?amak ni:wi
 min= mo?tz-a? -am =ak ni:wi
 A2 (ERG)=grind-APPL1-IRRI=AN chili
 'You are going to grind the chili for him.'
 {lm4/536}

The applied argument is understood to bear a malefactive semantic role when the action performed by the agent on the theme negatively affects the third participant of the clause. The malefactive semantic role is obtained with verbs like mukx 'bite' (30a), jo?n 'steal' (30b), tun 'do, make' (30c), yak+pitzüm 'remove, take out' (30d), wü:n 'steal' (30e), yak+tzi:y? 'grab' (30f), among others.

- (30) a. komom pü:k tamukxa?xüp
 komom pü:k ta= mukx-a?x -ü -pa
 forked_pole DUB B1 (ABS)=bite-APPL1-INV-INCI.I
 'They are chewing up the house pole on me.'
 {vg3/151}
- b. tajo?na?xüpak tame:nyu
 ta= jo?n -a?x -ü -pa =k tan= me:nyu
 B1 (ABS)=steal-APPL1-INV-INCI.I=AN A1 (PSR)=money
 'She is stealing my money.' {aand/308}
- c. mituna?xanüp da:nyo
 mi= tun-a?x -an+ü+pa da:nyo
 B2 (ABS)=do -APPL1-INV+IRRI damage
 'It is going to make you sick.' (Lit. 'It is
 going to do you damage.') {lm3/52}
- d. ?itzintza?y pro:we tyakpitzümayi
 ?i= tzintzay pro:we
 A3 (PSR)=intestine poor
 ta= yak- pitzüm-ay -i
 C3 (ERG)=CAUS-exit -APPL1-COMD
 'He took out the intestines of the poor guy.'
 {vg/873}
- e. minuk ti:ke? miwü:na?xej tu?k piyuna?k
 mi:n?-u =k ti? =k =je?
 come -COMI=AN CFCT=AN=that
 min= wü:n-a?x -e -j tuk piyu -nak
 A2 (ABS)=pull-APPL1-INCD-INVD.I one chicken-DIM
 'He came to steal one little chicken from you.'
 {rs6/110}
- f. ?iyaktziyappexü?k tu:tukawo?k je?k presilya:no
 ?i= yak- tzi:y?-ay -pe =xü=k
 A3 (ERG)=CAUS-stick -APPL1-INCI.T=EV=AN
 tu:tuk-?awok je? =k presilya:no
 turkey-DIM that=AN Prisciliano
 'He is stealing a little turkey from
Prisciliano.' {lm4/496}

The applied argument is understood as a semantic addressee when the suffix -ja:yʔ occurs with verbs of locution like nüm 'tell, say' (26b), koʔtzow 'request' (31a), ʔüw 'sing' (31b), ya:xʔ 'shout, scream, bark' (31c), xu:xʔ 'whistle' (31d), among others.

- (31) a. nükxpak xkoʔtzoweʔ yoxe jeʔk jula:nu
 nükx-pa =k tax= koʔtzow-aʔ -i yox+e
 go -INCI.I=AN C1(ERG)=request-APPL1-INCD work

 jeʔ =k jula:nu
 that=AN so_and_so
 'I am going to ask that guy for a job.'
 {olul/230}
- b. minta:tzükʔüwaʔxej
 min= ta:tzük-ʔüw -aʔx -e -j
 A2(ABS)=ear -sing-APPL1-INCD-INVD.I
 'It (the mosquito) is singing (a song) to you (in your ear.)' {mil/474}
- c. ʔiya:xaype jaʔ
 ʔi= ya:xʔ-ay -pe jaʔ
 A3(ABS)=shout-APPL1-INCI.T 3AN
 'It (the dog) is barking (barks) at the bees.'
 {rsch1/602}
- d. jeʔ ʔu:rak taxu:xayi
 jeʔ ʔu:ra=k ta= xu:xʔ -ay -i
 that hour =AN C3(ERG)=whistle-APPL1-COMD
 'At that time, he whistled (a whistle) at her.'
 {rspf1/199}

The applied argument is understood as a semantic location or goal when -ja:yʔ is suffixed to verbs such as: tzak 'throw' (32a), tzak+ʔi:yʔ 'insert, stick into' (32b),

yak+tük+ʔi:yʔ 'put into' (32c), tu:tʔ 'put' (32d), among others.

- (32) a. ta taxzakaypa yaʔaj pelo:ta
 ta tax= tzak -ay -pa yaʔaj pelo:ta
 COND C1 (LOCAL)=throw-APPL1-INCI.I this ball
 'If I throw this ball at you.' {koya/167}
- b. ʔu: tanatzakiyayi nijampaʔ
 ʔu: ta= natz-tzak+ʔi:yʔ-ay -i nijampaʔ
 ADM C3 (ERG)=all- insert -APPL1-COMD entire
 'He sunk (the knife) completely into him.'
 {vg/872}
- c. miyaktükiyaʔxanüp wope
 mi= yak- түк+ʔi:yʔ-aʔx -an+ü+pa wop+e
 B2 (ABS)=CAUS-enter -APPL1-INV+IRRI hit
 'He is going to hit you.' (Lit. 'He is going to
 put hits on you.') {olu4/230}
- d. tatu:taʔnyok tüka:wku
 ta= tu:tʔ-aʔ -nü -e =k
 C3 (ERG)=put -APPL1-already-INCD=AN

 түк- ʔaw+ku
 house-entrance
 'He barred the door.' (Lit. 'He put (the bar) on
 the door.') {lm4/549}

1.2.1. The Applied Argument is the Primary Object

Similarly to the recipient of the verb mo:yʔ 'give,' the applied argument of double object constructions functions as the PO of the clause. This is supported by the same three morphosyntactic facts as with mo:yʔ: person marking in the inverse pattern, person marking in passives,

and binding properties of reflexive and reciprocal constructions. These features will be discussed in order. First, the applied argument is cross-referenced by the absolutive on the verb in the inverse construction following the same pattern as the single object of monotransitive clauses. The theme cannot be cross-referenced by the absolutive in double object constructions.

- (33) a. tanüma?xüwa? tantükaw ya?aj ?isto:rya
 ta= nüm -a?x -ü -w =ja? tan= tükaw
 B1 (ABS)=tell-APPL1-INV-COMI=3AN A1 (PSR)=father
 ya?aj ?isto:rya
 this story
 'My father told me this story.' {hijomez/13}
- b. mika:jato:ka?xüwak je? lonja jaytzü?nakü
 mi= ka:=ja= to:k-a?x -ü -w =ak je?
 B2 (ABS)=NEG=MIRAT=sell-APPL1-INV-COMI=AN that
 lonja jaytzü? -nak
 strip old_lady-DIM
 'That old_lady didn't sell you that strip of
 meat.' {lonja/82}
- c. taxtunayu?a?a?k kama
 tax= tun-ay -u -a? -ak kama
 C1 (LOCAL)=do-APPL1-COMI-PERF-INV.LOCAL corn_field
 'You have already prepared the corn field for
 me.' {olu28/23}

- d. na:xeʔk ʔitu:taʔxiy ʔikejkejem ʔiküʔ
 naʔkxej=k ʔi= tu:tʔ-aʔx -i -y
 when =AN A3(ABS)=put -APPL1-COMD-INVD.C

 ʔi= kejkə -jeʔ+mü ʔi= küʔ
 A3(PSR)=shoulder-LOC A3(PSR)=hand
 'When he_i put his_i hand on him_j, on his_j shoulder.'
 {rschl/209}

Second, whereas in the passive counterpart of monotransitive clauses the theme is cross-referenced by the absolutive on the verb, in the passive counterpart of double object constructions, the applied argument, and not the theme, is cross-referenced by the absolutive on the verb. The agent cannot be expressed in passives. The passivized verb bears the passive prefix yak-.

(34) a. Passive of Monotransitive

tyaktzaku para xtzoʔkaʔn
 ta= yak- tzak-u para tax= tzo:kʔ-aʔn
 B1(ABS)=PASS-send-COMI for C1(LOCAL)=pay -IRRD
 'I was sent to pay you.' {olu6/224}

b. Passive of Ditransitive

tyaktzakaʔxej si:ta
 tan= yak- tzak-aʔx -e -j si:ta
 A1(ABS)=PASS-send-APPL1-INCD-INVD.I appointment
 'I have been sent an appointment.' {id3/490}

Unlike the passives of ditransitive clauses that include the verb mo:yʔ 'give' (18a-c) and the passives of monotransitives (35a), the passives of ditransitive constructions with an applied object always bear one of the

inverse markers (-ü, -j, or -y). The presence of the inverse marker indicates that there is a mismatch between the highest-ranked argument in the argument hierarchy (agent > theme > benefactive/recipient/addressee/locative), and the highest ranked argument in the saliency hierarchy (1 > 2 > 3 (proximate) > 3 (obviative)). Olutec does not exhibit a construction in which the theme outranks the benefactive in saliency, e.g. 'You have been sent to him' or 'You have been sent to me'. The applied argument always outranks the theme in saliency, but the theme always outranks the recipient/benefactive/addressee within the argument hierarchy. Thus, passives of ditransitives have the same argument structure as non-agentive bivalent verbs (see the discussion in chapter 3). The applied argument is an addressee in (36a), a recipient in (36b), and a malefactive in (36c).

- (36) a. tyaknūmaʔxūwū yamxūʔk ʔiʔiti yu:kiʔk
 ta= yak- nūm -aʔx -ü -w
 B1 (ABS)=PASS-tell-APPL-INV-COMI

 yaʔ+mü=xü=k ʔi= ʔit -i yu:k-ik
 here =EV=AN A3 (ABS)=exist-INCD hide-PCP
 'I was told that you are hidden here.' {rayo/54}
- b. jeʔ miyaktzo:kaʔxanüp
 jeʔ mi= yak- tzo:kʔ-aʔx -an+ü+pa
 that B2 (ABS)=PASS-pay -APPL1-INV+IRRI
 'You are going to be paid that.' {olu28/757}

- c. jeʔ ʔu:raxüʔk ʔiyakchipkotaʔxiy jaʔxü ʔita:tzükü
 jeʔ ʔu:ra=xü=k ʔi= yak- chip+kot-aʔx -i
 that hour=EV=AN A3(ABS)=PASS-pull -APPL1-COMD
 -y jaʔ=xü ʔi= ta:tzük
 -INVD.C 3AN=EV A3(PSR)=ear
 'At that time he was pulled by his ear.'
 {koya/221}

And third, the agent always binds the applied argument in reflexive (37a, b) and reciprocals (38a, b) of double object constructions containing the applicative -ja:yʔ. The applied argument is a benefactive in (37a), a locative in (37b), a goal in (38a), and a malefactive in (38b).

- (37) a. nitzümpetaʔxüp tuʔk kuxtaʔt tuʔk ʔitukmün
 ø= ni- tzüm -pet -aʔx -ü -pa
 B3(ABS)=RFLX-carry(back)-DIR:up-APPL1-INV-INCI.I
 tuk kuxtat tuk ʔi= tukmüm
 one sack one A3(PSR)=alone
 'He is carrying a sack on his own back by himself.' {lm3/319}
- b. nitu:taʔxaj tanküʔkumu
ni- tu:tʔ-aʔx -a -j tan= küʔ+kumu
RFLX-put -APPL1-IMPR-INVD.I A1(PSR)=ring
 'Wear my ring!' (Lit. 'Put my ring on you!')
- (38) a. ʔinitzaküxaʔxej
 ʔi= ni- tzak -küx-aʔx -e -j
 A3(ABS)=RECP-throw-PL3-APPL1-INCD-INVD.I
 'They are throwing it (the ball) to each other.'
 {koya/191}

- b. ?inichipkotkūxaʔxiyak ?iwayü
 ?i= ni- chip+kot-kūx-aʔx -i -y =ak
 A3 (ABS)=RECP-pull -PL3-APPL1-COMD-INVD.C=AN
- ?i= way
 A3 (PSR)=hair
 'They pull each other by their hairs.'
 {rsch1/452}

1.2.2. The Theme is the Secondary Object

The theme of double object constructions cannot be cross-referenced by the pronominal proclitic on the verb. However, similarly to the theme of basic ditransitive clauses with the verb mo:yʔ 'give,' the theme of ditransitive clauses that include a verb suffixed by -ja:yʔ shares three of the properties associated with core arguments. First, the nominal expressing the theme appears without being marked by an adposition, as in (33a-d). Second, the theme relativizes with the same gapping strategy used by core arguments. Compare the relative clause formation strategy of agents (39), themes (40), and applied arguments (41). In all cases, the verb within the relative clause appears nominalized and the argument being relativized is not expressed by a pronoun within the relative clause.

(39) RC Modifying an Agent

- a. yaʔaj tanümaʔxüwaʔ
 yaʔaj [ta= nüm-aʔx -ü -w -ʔaʔ]
 this B1(ABS)=say-APPL1-INV-COMI-NMZR
 'This is the one who told me that.' {hijomez/12}
- b. nümpak jeʔkü tato:kaʔxüwaʔ ʔitükü
 ø= nüm-pa =k jeʔ =k
 B3(ABS)=say-INCI.I=AN that=AN
- [ta= to:k-aʔx -ü -w -ʔaʔ] ʔi= tükü
 B1(ABS)=sell-APPL1-INV-COMI-NMZR A3(PSR)=house
 'The one who sold me his house says [...]'
 {olu26/146}

(40) RC Modifying a Theme

- a. jeʔkoj taxto:kayuʔaʔ
 jeʔ =koj [tax= to:k-ay -u -ʔaʔ]
 that=just C1(ERG)=sell-APPL1-COMI-NMZR
 'That is what I sold to them.' {lonja/53}
- b. taʔutüwak ʔi:tzümünakü tamü:minaʔxüwaʔ sa:ra
 ta= ʔut -ü -w =ak ʔi:tzümü-nak
 B1(ABS)=like-INV-COMI=AN pig -DIM
- [ta= mü:+mi:nʔ-aʔx -ü -w -ʔaʔ sa:ra]
 B1(ABS)=bring -APPL1-INV-COMI-NMZR Sara
 'I like the pig that Sara brought for me.'

(41) RC Modifying an Addressee

- a. tukak yoʔjwa taxnümayi:tüsaʔ
 tuk=ak yoʔjwa [tax= nüm -ay -i -:t -ütz
 one=AN man C1(ERG)=tell-APPL1-COMD-PL.SAP-EXCL
-ʔaʔ
 -NMZR
 'One man that we told it to.' {olu28/239}

- b. taʔe:puk jeʔk yoʔjwa mijoʔnaywaʔ ʔiʔawnapxe
 tan= ʔe:p-u =k jeʔ=k yoʔjwa
 A1(ERG)=see -COMI=AN that=AN man
- [min= joʔn -ay -w -aʔ ʔi= ʔawnapxe]
 A2(ERG)=steal-APPL1-COMI-NMZR A3(PSR)=beer
 'I saw the man from whom you stole the beer.'

In contrast, when an oblique nominal is relativized, the verb within the relative clause is not nominalized and the relative clause contains an anaphoric morpheme which stands for the noun being relativized. The relative pronouns jumü, in (42a), and ʔijotpi, in (42b), stand for the locative argument being relativized.

- (42) a. ʔitükaw ʔito:kuk jeʔ taʔaʔw jumü tanye:ki:tüʔs
 ʔi= tükaw ʔi= to:k-u =k jeʔ taʔw
 A3(PSR)=father A3(ERG)=sell-COMI=AN that land
- [jumü tan= ye:k-i -:t -ütz]
 where A1(ABS)=grow-COMD-PL.SAP-EXCL
 'His father sold that piece of land where we grew up.' {cafe/72}
- b. tanpa:tuk tuʔk morraʔl ʔijotpi ʔiʔitij me:nyu
 tan= pa:t-u =k tuk morral [ʔi= jot
 A1(ERG)=find-COMI=AN one haversack A3(PSR)=inside
- pi ʔi= ʔit -i -j me:nyu]
 -LOC A3(ABS)=exist-INCD-INVD.I money
 'I found the haversack inside of which I have the money.'

Third, the third-person plural theme of a double object construction (43b), similarly to the agent (43a) and

addressee (43c) core arguments, may be explicitly marked on the verb by the third-person plural marker -kūx.

(43) a. Plural Cross-referencing the Agent

jume:k naʔawawoʔk nükxi takepküxeʔ ʔixüwü
 jumej=ak naʔw -ʔawok nükx-i
 how =AN old_man-DIM go -INCD

ta= kep -kūx-aʔ -i ʔi= xüw
 C3(ERG)=look_for-PL3-APPL1-INCD A3(PSR)=name
 'That is how the old men are searching for its
 name.' {mi2/242}

b. Plural Cross-referencing the Theme

tanmü:minküxayuk mesko kawa:yu le:ncho
 tan= mü:- mi:nʔ-kūx-ja:yʔ-u =k metzko
 A1(ERG)=ASSOC1-come -PL3-APPL1-COMI=AN two

kawa:yu le:ncho
 horse Lencho
 'I brought two horses to Lencho.'

c. Plural Cross-referencing the Addressee

tanünküxeʔxük ʔimüʔkutük
 ta= nüm -kūx-aʔ -i =xü=k
 C3(ERG)=tell-PL3-APPL1-COMD=EV=AN

ʔi= müʔku -tük
 A3(PSR)=brother-PL
 'He told his older brothers that.' {desob/11}

The theme of applied constructions shares the same syntactic behaviour with the theme of ditransitive clauses that include the verb mo:yʔ 'give' with respect to the quantifier binding rule. Recall that under this rule, out of the two objects involved in a ditransitive clause, only

the theme can bind with preverbal quantifiers. In (44), similarly to (15a-c), the reading in which the quantifier binds the recipient is ruled out.

- (44) taʔna seme tatu:tküxayik küpi
 taʔna seme ta= tu:tʔ-küx-ay -i =k
 a_lot very C3(ERG)=put -PL3-APPL1-COMD=AN
 küp+i
 firewood
 'They throw quite a lot of firewood on him.'
 {diabl/105}
 (NOT: 'They throw firewood on many of them.')

Aissen 1987, Constable 1989, and Marlett 1986, all working within the Relational Grammar framework, have studied similar double object constructions in Tzotzil (Mayan), Huastec (Mayan) and Sierra Popoluca (Mixe-Zoquean). They have argued that the applicative morpheme makes it possible for the third argument to become a direct object via 3-to-2 advancement, whereas the original direct object (the theme) is put in chômage. This analysis implies that ditransitive constructions have only one syntactic object and that the theme is syntactically inert. This assumption cannot be sustained for Olutec, since in this language the theme of double object constructions still maintains at least three of the syntactic properties associated with other core arguments.

The syntactic status of the theme of double object constructions clearly differs from true inert arguments. For instance, there is a type of construction that includes three semantic participants in which the theme incorporates into the verb and the third participant (usually a locative participant) then functions as the only syntactic object of the clause. In this type of noun-incorporation, illustrated in (45b), the theme is indeed syntactically inert since it cannot be modified, it cannot be relativized, and it cannot be cross-referenced by the third-person plural marker on the verb (see the discussion in CH. 5).

(45) a. Analytic Construction: Theme is the Clausal PO

minyaka?ame:t tzümi kamyonjem
 min= yak- ka? -am -e:t tzümi kamyon-jem
 A2(ERG)=CAUS-descend-IRRI-PL.SAP load truck -LOC
 'You (pl) are going to bring the load down from
 the truck.' {olu28/508}

b. Synthetic Construction: Theme is Syntactically Inert

minyaktzümika?ame:t kamyo?n
 min= yak- tzüm+i-ka? -am -e:t kamyon
 A2(ERG)=CAUS-load- descend-IRRI-PL.SAP truck
 'You (pl) are going to unload the truck.' (Lit.
 'You are going to take down the load from the
 truck.') {olu28/509}

In sum, the two objects of applied constructions that include the suffix -ja:y? are syntactically asymmetrical (Bresnan and Moshi 1990). The applied argument exhibits

most of the properties associated with the only object of monotransitive clauses, whereas the theme only exhibits some. Thus, the theme is the SO whereas the applied argument is the PO.

1.3. Monotransitive vs. Ditransitive Constructions

Olutec disallows constructions with oblique benefactives, malefactives, recipients, or addressees. The only participants that can be headed by an oblique marker (i.e., an adposition) are instrumentals, associatives, and locatives. Thus, all transitive clauses that include a benefactive, malefactive, recipient or addressee as a third participant have to be coded as derived ditransitive clauses using applicatives. In all cases, the third participant functions as PO and the theme functions as SO. The SO is always a third-person nominal which is always outranked in person, animacy or saliency by the PO. Olutec does not allow constructions such as: "He sent me to you" or "she washed you for me" whose theme outranks the recipient/benefactive in person. Paraphrastic structures are used to convey these types of three-participant events.

The locative is the only semantic role that can be expressed either as an oblique argument of a monotransitive

clause or as a PO of a double object construction. Example (46a) is a monotransitive clause that includes a theme functioning as PO and a location functioning as oblique. Note that the location is explicitly marked by the locative postposition -jeʔ+mü. In contrast, (46b) illustrates a double object construction. The theme is coded as a SO whereas the location is an applied argument with PO function.

- (46) a. jama:k tamaktzükü jeʔ ʔu:rak tatu:ti jünjem jeʔ
 chi:nu
 jamaj=k tan= maktzük jeʔ ʔu:ra=k
 that =AN A1 (PSR)=younger_sister that hour =AN
 ta= tu:tʔ-i jün -jeʔ+mü jeʔ chi:nu
 C3(ERG)=put -COMD fire-LOC that honey
 'At that time, that little sister of mine put
 that honey on the fire.' (abeja/29)
- b. jeʔk majaw tatu:tayik jeʔk yoʔjwa tuʔk koʔpaʔn
 jeʔ =k majaw ta= tu:tʔ-ay -i =k
 that=AN woman C3(ERG)=put -APPL1-COMD=AN
 jeʔ =k yoʔjwa tuk koʔpan
 that=AN man one hat
 'That woman put a hat on that man.' (rsch2/77)

Nevertheless, locative nominal expressions are obligatorily coded as applied arguments when they outrank the theme in animacy. Thus, a clause such as the one in (46b) does not have a monotransitive counterpart with the nominal expression jeʔk yoʔjwa marked by a locative postposition.

The same is true for the following examples in which the locative participant outranks the theme in animacy.

- (47) a. jo: poma:da tantu:tayu?a?
 jo: poma:da tan= tu:t?-ay -u -?a?
 yes ointment A1(ERG)=put -APPL1-COMI-PERF
 'Yes, he already put ointment on him.'
 {aandc/432}
- b. yaktu:ta?xüwak ya?ak ko?yaj ja:mu
 ø= yak- tu:t?-a?x -ü -w =ak ya?aj=ak
 B3(ABS)=PASS-put -APPL1-INV-COMI=AN this =AN

 ko?yaj ja:mu
 devil air
 'He was cursed.' (Lit. 'He was put devil air
 on.') {rp3/826}
- c. tatu:tayik ?imü?ku kutu?n
 ta= tu:t?-ay -i =k ?i= mü?ku kutun
 C3(ERG)=put -APPL1-COMD=AN A3(PSR)=brother shirt
 'He threw the shirt to his brother.' {rspfl/622}
- d. jemxük pa:ke? tyaktükiyayi tuji
 je?+mü=xü=k pa:k=e? ta= yak-tük+?i:y?-ay
 there=EV=AN 3AN=CLEFT C3(ERG)=CAUS-enter -APPL1

 -i tuj+i
 -COMD bullet
 'It was there where they shot him.' (Lit. 'It was
 there where they put the bullet inside him.'
 {aand/760}

In contrast, when the theme outranks the locative in animacy, the clause is obligatorily coded as monotransitive. The following examples that have an animate theme and an inanimate locative do not have double object construction counterparts. In these circumstances, the

locative nominal expression is always marked by a postposition.

- (48) a. nükxam xtu?ti wep mintükümü
 nükx-am tax= tu:t?-i wew -pi
 go -IRRI C1(LOCAL)=put -INCD there-LOC

 min= tük -mü
 A2(PSR)=house-LOC
 'I am going to take you to your house.' (Lit. 'I
 am going to put you in your house.') {diab2/132}
- b. kuypi ya?k ?inükxi ?iyaktu:ti
 kuy -pi ya? =ak ?i= nükx-i
 tree-LOC that=AN A3(ABS)=go -COMD

 ?i= yak- tu:t?-I
 A3(ABS)=PASS-put -INCD
 'He was taken and put in jail.' {café/90}
- c. taxyaktükiyi:tusak wem
 tax= yak-tük+?i:y?-i-:t -ütz =ak wew -mü
 C1(ERG)=CAUS-enter-COMD-PL.SAP-EXCL=AN there-LOC
 'We took him inside there.' {rp3/818}

An event with three participants may be coded with either a monotransitive or a ditransitive construction only when both the theme and the locative are equally ranked in animacy. In this situation, the locative occurs in the oblique form when it is a new or unimportant participant in the fragment of discourse where it is introduced. For instance in (49a), the noun na:x 'ground' is introduced for the first time in the conversation and is never mentioned again. The example in (49b) is part of a conversation

regarding the whereabouts of a lost leader. The noun limun 'lime' is never mentioned in the subsequent interchanges among the speakers involved in the conversation.

- (49) a. na:xpixü tatu:ti ?iposi:yo
 na:x -pi =xü ta= tu:t?-i ?i= posi:yo
 ground-LOC=EV C3(ERG)=put -COMD A3(PSR)=cup
 'He put his cup on the ground.' {rsch2/45}
- b. jamaj te:nikü wewmü taxtu:ti limunjem
 jamaj te:nik wew -mü tax= tu:t?-i
 that ladder there-LOC C1(ERG)=put -COMD
- limun-je?+mü
 lime -LOC
 'I put that ladder over there on the lime tree.'
 {vg/294}

In contrast, the ditransitive construction is always used when the locative participant is pragmatically more important than the theme. For example, the double object construction with locative as PO occurs when the theme is overtly expressed as a new participant and the locative is anaphorically recoverable in contexts where it has been already introduced as an important topic in discourse, as the following examples illustrate.

- (50) a. jo: ?ikura?t ?itu:taywa? ja?
 jo: ?i= kurat ?i= tu:t?-ay -w -a? ja?
 yes A3(PSR)=fence A3(ERG)=put-APPL1-COMI-PERF 3AN
 'Yes, he already had fenced it (the land). (Lit.
 'Yes, he already had put a fence on it (the
 land).') {aand/838}

- b. tantu?ta?anampo?k je? tzu?chi
 tan= tu:t?-a? -an =?ampok je? tzu:tz?+i
 A1(ERG)=put -APPL1-IRRD=also that meat
 'I am going to add meat to it (tamal) too.'
 {mi2/49}
- c. ?itu:tayuk jünü
 ?i= tu:t?-ay -u =k jün
 A3(ERG)=put -APPL1-COMI=AN fire
 'He put fire on it (a pot with food).' {mil/335}
- d. tatu:ta?nyok tüka:wku
 ta= tu:t?-a? -nü -e =k tük+?aw+ku
 C3(ERG)=put -APPL1-already-INCD=AN bar
 'He barred it (the door).' (Lit. 'He put the bar
 on it (the door).') {lm4/549}
- e. ja?k ?itu:taype tu?k tüpxina?k
 ja?=k ?i= tu:t?-ay -pe tuk tüpx+i-nak
 3AN=AN A3(ERG)=put -APPL1-INCI.T one rope -DIM
 'He is tying one little rope on it (the coffee
 plant).' {olu28/720}

These facts confirm the observations of Morolong and Hyman (1977), Givón (1979, 1984), Dryer (1986) among others, who have suggested that animacy and topicality are the determining factors for coding the third participant as the PO of ditransitive clauses. Languages that use the ditransitive construction as the only possibility for the inclusion of datives/benefactives within the argument structure of the clause have syntacticized a pattern which was originally triggered by the pragmatic status of the third argument. The fact that the theme of monotransitives and the benefactive/malefactive/recipient/ addressee of ditransitives share the same morphosyntactic behaviour

correlates with the fact that both arguments exhibit a similar pragmatic function as the second most salient argument of the clause.

To summarize, Olutec is a language in which the ditransitive construction is the only morphosyntactic means for conveying benefactives, malefactives, addressees, and recipients as part of the clause. These semantic roles are, in most cases, associated with animate and pragmatically highly salient participants. In the case of locatives, the double object construction has been syntacticized as the only possible way to code a three-participant clause when the locative outranks the theme in animacy. However, the ditransitive vs. transitive alternation is still pragmatically governed when both the theme and the locative are equally ranked in animacy. The determining factor for using one or the other type of clause is the relative rank of the two non-subject clausal arguments within a saliency hierarchy. When the second most salient participant of the clause is the theme, the resulting construction is monotransitive; but when the second most salient participant of the clause is the location, the resulting construction is ditransitive with the applicative.

1.4. External Possession and the Double Object Construction

A subset of Olutec double object constructions with the applicative -ja:y? exhibits an External Possessor (EP) interpretation. The EP reading is obtained when the extra-thematic applied argument is coreferential with the possessor (PSR) of the theme. The examples in (51) illustrate double object constructions with EP interpretation.

- (51) a. tantükawak tayakke:ka?xüpa tantu:min
 tan= tükaw =ak ta= yak+ke:k?-a?x -ü -pa
 A1 (PSR)=father=AN B1 (ABS)=remove -APPL1-INV-INC.I

 tan= tu:min
 A1 (PSR)=money
 'My father takes my money away from me.'
 {C8/57/50}
- b. ?imi?nanak minkowokta?ka?xej mintükawku
 ?i= mi:n?-an =ak min= kowok-ta:k?
 A3 (ABS)=come -IRRD=AN A2 (ABS)=knock-suddenly

 -a?x -e -j min= tük- ?aw+ku
 -APPL1-INCD-INVD.I A2 (PSR)=house-entrance
 'It is possible that he will come to knock all of
 a sudden on your door.' {rs8/25}
- c. ?imukxayuk ?iko?pa?k
 ?i= mukx-ay -u =k ?i= ko?+pak
 A3 (ERG)=bite-APPL1-COMI=AN A3 (PSR)=head
 'It (the parrot) bit him on his head.'
 {duenyo/43}

- d. jeʔ ʔu:ra xyake:kayi ʔiʔawkupanunaʔk
 jeʔ ʔu:ra tax= yak- ke:kʔ-ay -i
 that hour C1(ERG)=CAUS-move -APPL1-COMD
 ʔi= ʔaw+kupan-ʔunak
 A3(PSR)=lid -DIM
 'At that time I removed its little lid.'
 {café/45}
- e. xuʔninakak ʔiwe:yaype ʔiʔa:kanaʔk chu:chunaʔk
 xuʔni-nak=ak ʔi= we:y-ay -pe
 dog -DIM=AN A3(ERG)=lick-APPL1-INCI.T
 ʔi= ʔa:ka-nak chu:chu-nak
 A3(PSR)=cheek-DIM small -DIM
 'The little dog is licking the little child on
 his cheek.' {id2/92}

The sentences in (51) have the same formal properties as any other double object construction. First, the third-person plural marker, -kūx, can be cross-referencing either possessed themes (Secondary Object) or applied extra-thematic argument (Primary Object) with plural reference:

(52) a. Plural Cross-referencing the Possessed Theme

ʔitunkūxayuk ʔiʔawoʔk
 ʔi= tun -kūx-ay -u =k ʔi= ʔawok
 A3(ERG)=make-PL3-APPL1-COMI=AN A3(PSR)=offspring
 'He gave her sons.' (Lit. 'He made her sons.')
 {rp3/407}

b. Plural Cross-referencing the Possessor and PO

miʔe:payuk ʔitükü
 min= ʔe:p-ay -kūx-u =k ʔi= tük
 A2(ERG)=see -APPL1-PL3-COMI=AN A3(PSR)=house
 'You saw their house.' {rs6/78}

Second, both Secondary and Primary Objects can occur as unflagged nominals and both are core arguments of the clause, as in (51e). Third, the PO is overtly signaled with the person marker in the inverse pattern (51a, b). Fourth, the PO of an active ditransitive with EP interpretation is the subject of the passive counterpart. Recall that in ditransitive passives, the subject is marked by the absolutive and the verb follows the inverse pattern, as illustrated in (53a-d).

- (53) a. jeʔ ʔu:raxüʔk ʔiyakchipkotaʔxiy jaʔxü ʔita:tzükü
 jeʔ ʔu:ra=xü=k ʔi= yak- chip+kot-aʔx
 that hour =EV=AN A3(ABS)=PASS-grab -APPL1
 -i -y jaʔ=xü ʔi= ta:tzük
 -COMD-INVD.C 3AN=EV A3(PSR)=ear
 'It (the rabbit) was pulled by the ear.'
 {koya/221}
- b. yakjoʔnaʔxüwxüʔk ʔisolaʔr
 ø= yak- joʔn -aʔx -ü -w =xü=k
 B3(ABS)=PASS-steal-APPL1-INV-COMI=EV=AN
 ʔi= solar
 A3(PSR)=piece_of_land
 'He was robbed of his piece of land.' {aand/263}
- c. ʔiwinü ʔiyakwopaʔxiyü
 ʔi= win ʔi= yak- wop-aʔx -i -y
 A3(PSR)=eye A3(ABS)=PASS-hit-APPL1-COMD-INVD.C
 'He was hit on his eye.' {rp3/292}
- d. tayaktu:taʔxüw tanjapoyʔu:ki
 ta= yak- tu:tʔ-aʔx-ü -w tan= japoyʔu:k+i
 B1(ABS)=PASS-put-APPL1-INV-COM A1(PSR)=breakfast
 'I got my breakfast.' (Lit. 'My breakfast was put
 to me.') {C22/83}

And fifth, the actor of ditransitives with EP interpretation binds the PO in reflexives (54a) and reciprocals (54b).

- (54) a. taniyu:kaʔxüw tankoʔpak mü:t tuku
 ta= ni- yu:k-aʔx -ü -w
 B1(ABS)=RFLX-hide-APPL1-INV-COM
 tan= koʔ+pak mü:t tuku
 A1(PSR)=head with rag
 'I hid my head with the rag.' {P/AA/13}
- b. ʔinichipkotküxaʔxiyak ʔiwayü
 ʔi= ni- chip+kot-küx-aʔx -i -y =ak
 A3(ABS)=RECP-pull -PL3-APPL-COMD-INV.D.C=AN
 ʔi= way
 A3(PSR)=hair
 'They pulled each other's hairs.' {rschl/452}

1.4.1. Internal vs. External Possession Constructions

The ditransitive construction with an EP interpretation is used when the possessor (PSR) of the SO is construed as an affected participant (benefactive or malefactive). A monotransitive counterpart, with the PSR marked only on the theme, is used when the PSR is not highlighted as affected. The following pairs illustrate this contrast. The (a) examples, which illustrate the

Internal Possession Construction, have the PSR marked on the theme only. In the EP counterparts, (b) examples, the PSR of the theme is coreferential with the PO.

- (55) a. jeʔk ʔiwinki:pe tantükü
 jeʔ =k ʔi= win-ki:p -pe tan= tük
 that=AN A3(ERG)=EYE-clean-INCI.T A1(PSR)=house
 'She is cleaning my house.' {rs2/89}
- b. tani:ki:payik ʔita:tzüʔk
 ta= ni:- ki:p -ay -i =k ʔi= ta:tzük
 C3(ERG)=BODY-clean-APPL1-COMD=AN A3(PSR)=ear
 'He (the father) cleaned his son's ears.'
 {rschl/131}
- (56) a. jeʔk po:jü ʔikaype ti:keʔ niʔjaʔmej tanpiyu
 jeʔ =k po: ʔi= kay-pe tiʔ =k =jeʔ
 that=AN opossum A3(ERG)=eat-INCI.T CFCT=AN=that

 niʔjaʔmej tan= piyu
 all A1(PSR)=chicken
 'The opossum was going to eat all my chickens.'
 {rs6/103}
- b. ʔikayaype:keʔ ʔichisküʔk
 ʔi= kay-ay -pe =k =jeʔ ʔi= chitzkük
 A3(ERG)=eat-APPL1-INCI.T=AN=that A3(PSR)=root
 'It (the gopher) is eating its root.' {rp3/577}
- (57) a. pün ʔijuyu mina:xa:tekü
 pün ʔi= juy-u min= na:x-a:t+tek
 who A3(ERG)=buy-COMI A2(PSR)=land-PL.SAP
 'Who bought your land?' {vg3/386}
- b. ʔojeʔl tajuyayu ʔina:xü
 ʔojel tan= juy-ay -u ʔi= na:x
 Ojel A1(ERG)=buy-APPL1-COMI A3(PSR)=earth
 'I bought Ojel's land.' {aand/551}

- (58) a. ʔitunamak tanta:ta tantükü
 ʔi= tun -am =ak tan= ta:ta
 A3 (ERG)=make-IRRI=AN A1 (PSR)=grandson

 tan= tük
 A1 (PSR)=house
 'My grandson is going to build my house.'
 {aand/292}
- b. tantunayuk ʔikamanaʔk
 tan= tun -ay -u =k ʔi kama -nak
 A1 (ERG)=make-APPL1-COMI=AN A3 (PSR)=corn field-DIM
 'I cultivated his little corn field.' {ölu28/32}

Olutec speakers use the applied verb construction when the event portrays a possessor who benefits from the action or is affected by it. The selection of one or the other construction is pragmatically governed. Unlike certain other languages with EP constructions, the use of the Olutec applied construction is not triggered by the type of lexical items involved in the role of possessa (Velázquez-Castillo (1996), Payne (1997), Payne and Barshi (1999), Haspelmath (1999), Chappell (1999)). Body parts, parts-of-wholes, kinship terms as well as any other alienable noun can be equally coded as possessa of either Internal or External Possession Constructions.

1.4.2. Is EP Possessor Ascension in Olutec?

Tzotzil (Aissen 1979, 1987), Sierra Popoluca (Marlett 1986) and Huastec (Constable 1989) have equivalent constructions to those in (51a-e). This type of structure has been treated as possessor ascension (PA). Aissen, Marlett, and Constable have argued that the PSR of the theme is raised to "clausal 3" or indirect object which advances to "clausal 2" or direct object, putting the "initial 2" (the possessed theme) in "chômeage". The analysis offered for these languages cannot be extended to the equivalent construction in Oluta Popoluca for two reasons. First, the "initial 2" or possessed theme in Olutec maintains syntactic properties which are distinctive of core clausal arguments. The fact that the theme PSM can trigger third-person plural agreement on the verb and the fact that it occurs as an unflagged nominal corroborates its core argument status (i.e., just like the theme of mo:y? 'give'). In general, there is no convincing evidence that demonstrates that the SO in Olutec is an inert argument or "final chômeur".

Second, Aissen (1987:128) has argued for Tzotzil that the PO marked on the verb makes no semantic contribution beyond that made in its function as PSR of the theme. This

claim cannot be sustained for Olutec. In sentences such as (51a-e), the PO coreferential with the PSR of the SO of ditransitives always refers to an affected participant (malefactive or benefactive). The specific semantic role of the third participant is given by the construction and by the specific semantics of the verb that is part of it. Olutec has ditransitive sentences in which the PSR of the SO is not coreferential with the PO of the clause. Since these constructions are formally the same as those with EP interpretation, there is no good reason for positing a PA analysis for the ones with EP interpretation only. Several instances of constructions in which the PA analysis is impossible are given in (59)-(61). In these examples the PO bears an extra-thematic relation which is independent of the PSR of the theme. In (59) the PO is first person, whereas the PSR of the SO is second person.

- (59) jeʔ tye:mpo tanjoʔnküxaʔxiy minpiyu
 jeʔ tye:mpo tan= joʔn -küx-aʔx -i -y
 that time A1(ABS)=steal-PL3-APPL1-COMD-INVD.C
- min= piyu
 A2(PSR)=chicken
 'They robbed your chickens from me.'

In (60) the PO is third person ('little images of my Saint'), whereas the PSR of the SO is first person.

- (60) tanwelado:rawok tanyakjüntzi:ykūxaype
 tanʔesta:mpawok
 tan= welado:ra-wok tan= yak+jün+tzi:yʔ-kūx
 A1(PSR)=candle -DIM A1(ERG)=light -PL3

 -ay -pe tan= ʔesta:mpa -wok
 -APPL1-INC.T A1(PSR)=Saints'_images-DIM
 'I light my little candles to the little images
 of my Saint.' {C11a/84/945}

In (61) the PO is third person ('the dead'), whereas the PSR of the SO is second person.

- (61) tamü:nükxayuk mintüʔkxan ʔa:nima
 tan= mü:+nükx -ay -u =k min= tüʔkx+an
 A1(ERG)=take_along-APPL1-COM=AN A2(PSR)=candle

 ʔa:nima
 dead
 'I took your candles to the dead.' {PA2C/9}

Thus, these two facts clearly indicate that the PA analysis does not apply for the Olutec double object construction with EP interpretation. That is, the SO is not an inert argument and the third participant bears a thematic relation other than just PSR of the theme.

Marlett (1986:375) has pointed out that Sierra Popoluca's trivalent verbs such as 'give' and 'sell' do not use the applicative in ditransitive sentences with a dative participant. However, they do carry the applicative when the theme is possessed. This is taken by Marlett as

evidence that the applicative registers the PSR of the theme and not an extra "third" thematic role since agent, patient and recipient act as core arguments of the underived trivalent verbs by default. Similar to Sierra Popoluca, mo:yʔ 'give' in Olutec does not take the applicative when the recipient acts as the PO, as was discussed above. For instance, in (62) the first person absolutive ta= refers to the recipient (PO) and the verb occurs without -ja:yʔ.

- (62) tamoykūxūwak mesko kawa:yu le:ncho
 ta= mo:yʔ-kūx-ū -w =ak metzko kawa:yu
 Al (ABS)=give -PL3-INV-COM=AN two horse
- le:ncho
 Lencho
 'Lencho gave me two horses.'

The Olutec verb mo:yʔ takes the applicative only when a fourth participant is included in the argument structure of the clause. In (63), the fourth participant (additional recipient) is expressed by the first person absolutive on the verb.

- (63) le:nchok tamoyaʔxünüwak kawa:yuk xi:mu
 le:ncho=k ta= mo:yʔ-aʔx -ú -nü -w =ak
 Lencho=AN Al(ABS)=give -APPL1-INV-already-COM=AN

 kawa:yu=k xi:mu
 horse =AN Simon
 'Lencho already gave the horse to Simon instead
of me.'

In (64), the PSR of the theme is coreferential with the extra participant, 'instead of me,' which is not licensed by the argument structure of the underived verb.

- (64) Lenchok tamoyaʔxünüwak tankawa:yuk xi:mu
 Lencho=k ta= mo:yʔ-aʔx -ú -nü
 Lencho=AN Al(ABS)=give -APPL1-INV-already

 -w =ak tan= kawa:yu=k xi:mu
 -COM=AN Al(PSR)=horse =AN Simon
 'Lencho already gave my horse to Simon instead of
me.'

Olutec cases such as (64) cannot be analyzed as Possessor Ascension nor as EP, since the participant added via the applicative is not a copy of the PSR of the theme. The applicative introduces a new argument carrying the meaning of 'instead of' or 'in place of'.

In sum, a Possessor Ascension analysis proposed for the external possessor construction in other Mesoamerican languages is inadequate to account for the morphosyntactic facts that the equivalent construction with the applicative -ja:yʔ shows in Olutec. Contrary to the Possessor Ascension analysis, I have argued that the participant introduced by

the applicative is always a semantically relevant extra-thematic argument of the clause, which refers to the affected participant. It has an EP interpretation only when the PO is coreferential with the PSR of the theme.

1.4.3. Constraints on the Applicative Construction in Olutec and other Mesoamerican Languages

The applicative construction with EP reading presents two constraints in Tzotzil, Huastec and Sierra Popoluca. First, the applicative is prohibited when the subject of the clause is coreferential with the PSR of the theme. Rather, in Sierra Popoluca, Tzotzil and Huastec, sentences in which the subject is coreferential with the PSR of the theme must be expressed as transitive clauses. This constraint is not attested in Olutec. The Olutec version of 'Y'all wash your faces!' or 'I found my food' can be expressed with a transitive clause (65a, 66a) or a ditransitive reflexive clause with an applicative (65b, 66b) where the subject is coreferential with both the PSR of the SO and the PO of the clause.¹⁰

(65) a. Non-applicative

pujü:t minwintojkü:kte?k
 puj -ü -:t min= wintoj+kü:k-tek
 wash-IMP-SAP.PL A2(PSR)=face -SAP.PL
 'Y'all wash your faces!'

b. Applicative

nipuja?xüjü:t minwintojkü:kte?k
 ni- puj -a?x -üj -ü -:t
 RFLX-wash-APPL1-INV-IMP-SAP.PL

 min= wintoj+kü:k-tek
 A2(PSR)=face -SAP.PL
 'Y'all wash your faces!' (Lit. 'Wash yourselves
 your faces (for your benefit)!')

(66) a. tanpa:tnüw tankaya?n
 tan= pa:t-nü -w tan= kay+an
 A1(ERG)=find-already-COM A1(PSR)=food
 'I already found my food.'

b. tanipa:ta?xüno tankayan
 ta= ni- pa:t-a?x -ü -nü -w
 B1(ABS)=RFLX-find-APPL1-INV-already-COM

 tan= kay+an
 A1(PSR)=food
 'I already found my food.' (Lit. 'I found myself
 my food (for my benefit).')

The second constraint proposed for Sierra Popoluca, Huastec and Tzotzil is that an EP interpretation of ditransitive clauses is only obtained when the possessed nominal is an "initial direct object" (e.g., 'He ate my beans'). That is, the EP interpretation is not obtained in AC's when the possessed nominal is the "initial subject" or "oblique" of an intransitive or transitive clause. For

example, in Tzotzil, Huastec and Sierra Popoluca, 'My mother slept' and 'My mother ate beans' cannot be rendered with AC's. In Olutec 'My mother slept' is expressed with an intransitive clause and 'My mother eats beans' with a transitive clause. However, the Olutec versions of 'My mother slept on me (I am affected by the fact that my mother slept)' and 'My mother ate tortillas instead of me,' which are sentences in which the PSR of the subject is coreferential with an extra-thematic malefactive, are rendered with AC's.

- (67) taküjmajüwak tantzü?
 ta= küj- ma:jʔ-ü -w =ak tan= tzü?
 B1 (ABS)=APPL2-sleep-INV-COM=AN A1 (PSR)=mother
 'My mother slept on me.' ('I am affected by the
 fact that my mother slept.)'
- (68) tantzüʔk takayaʔxüwak nü:nü
 tan= tzüʔ =k ta= kay-aʔx -ü -w =ak
 A1 (PSR)=mother=AN B1 (ABS)=eat-APPL1-INV-COM=AN
 nü:n
 tortilla
 'My mother ate tortillas instead of me.'

The type of construction illustrated in (67) and (68) is not treated as a case of Possessor Ascension by Aissen (1987:135-138) and Marlett (1986:379) since they claim that the extra argument introduced by the applicative refers to "an initial benefactive, malefactive or recipient," whereas in the "true" Possessor Ascension construction the argument

introduced by the applicative is thematically irrelevant to the clause. Above, I argued that the argument introduced by the applicative is not just a "copy" of the PSR of the nominal involved. That is, in Olutec neither (67)-(68) or (51a-e) can be analyzed as PA since the applied argument bears its own thematic role that may coincide or be independent with respect to the the thematic role of the possessor marked on the nominal expression.

1.5. The Applicative -ja:yʔ with Non-agentive Verbs

The applicative -ja:yʔ occurs not only with transitive verb roots, but also derives transitive verbs (69b, 70b) from non-agentive intransitive verbs. Such derived stems appear in constructions in which the PSR of an oblique locative nominal is coreferential with the argument introduced by the applicative. The possessed locative nominal is then an obligatory constituent of the clause. The specific syntactic role of this nominal is unknown since it maintains the postposition in the AC. For example, (69a) and (70a) are intransitive. Thus, AC's illustrated in (69b)-(70b) are transitive and have an EP interpretation since an affected participant which is coreferential with the PSR of an oblique argument is simultaneously coded as a

direct dependent of the derived verb. The intransitive counterparts (69a)-(70a) do not have an EP interpretation.

- (69) a. ʔituk xi:mu tantükmü
 ∅= ʔit -u =k xi:mu tan= tük -mü
 B3 (ABS)=exist-COM=AN Simon A1 (PSR)=house-LOC
 'Simon was in my house.'
- b. taʔitaʔxüwak xi:mu tantükmü
 ta= ʔit -aʔx -ü -w =ak xi:mu
 B1 (ABS)=exist-APPL1-INV-COM=AN Simon

 tan= tük -mü
 A1 (PSR)=house-LOC
 'Simon was in my house (and this affected me).'
- (70) a. ʔo:kuk xi:mu sa:rak ʔitükmü
 ∅= ʔo:k-u =k xi:mu sa:ra=k
 B3 (ABS)=die -COM=AN Simon Sara =AN

 ʔi= tük -mü
 A3 (PSR)=house-LOC
 'Simon died at Sara's home.'
- b. ʔiʔo:kayuk xi:mu sa:rak ʔitükmü
 ʔi= ʔo:k-ay -u =k xi:mu sa:ra=k
 A3 (ERG)=die -APPL1-COM=AN Simon Sara=AN

 ʔi= tük -mü
 A3 (PSR)=house-LOC
 'Simon died at Sara's home (and this affected Sara).'

The main features of this type of AC are: the transitive verb stem is formed with an intransitive verb root suffixed with -ja:yʔ; the first core argument is signaled by the ergative person marker when the verb follows the transitive direct pattern (70b); the second core argument is signaled

by the absolutive person marker when the verb follows the transitive inverse pattern (69b); and the possessed locative nominal remains oblique, but is now obligatory in the clause.

The EP interpretation in this type of AC is only obtained with non-agentive verb roots. Sentences with agent-oriented verb roots suffixed with -ja:y? are always interpreted as ditransitive constructions and do not require a possessed locative nominal as a constituent of the clause. (71)-(72) are examples that include agent-oriented verbs occurring in intransitive and ditransitive clauses. The examples in (a) are intransitive, whereas the ones in (b) are ditransitive.

- (71) a. ya:xpaxú?k ?ita:tatük
 ø= ya:x?-pa =xü=k ?i= ta:ta -tük
 B3 (ABS)=shout-INCI.I=EV=AN A3 (PSR)=grandmother-PL
 'His grandmothers were shouting.' {aandc/24}
- b. wü:nikak ?iya:xaype
 wü:nik=ak ?i= ya:x?-ay -pe
 wasp =AN A3 (ERG)=shout-APPL1-INCI.T
 'It (the dog) is barking (barks) at the wasp.'
 {id1/170}
- (72) a. san seme chikxpakak ?ixu?xi
 san seme chikxpak=ak ?i= xu:x? -i
 very very pretty =AN A3 (ABS)=whistle-INCD
 'It (the parrot) whistles very
 nicely.' {rspf2/651}

- b. jeʔ ʔu:rak taxu:xayi
 jeʔ ʔu:ra=k ta= xu:xʔ -ay -i
 that hour =AN C3(ERG)=whistle-APPL1-COMD
 'At that time, he whistled (a whistle) at her.'
 {rspf1/199}

The theme in the ditransitive counterpart is an inferred cognate object (cf. Austin 1982). For instance, in (71b), the inferred theme refers to the "barks" produced by the dog, whereas in (72b), it refers to the sound produced by the person. When the cognate object appears as part of the clause, the verb (without the applicative) bears the ergative cross-referencing the agent.

- (73) xuʔni ʔiya:xuk mesko yafxi
 xuʔni ʔi= ya:xʔ-u =k metzko ya:xʔ+i
 dog A3(ERG)=shout-COMI=AN two barks
 'The dog barked twice.'

The passive counterpart of ya:xʔ-ja:yʔ 'shout at, bark at' exhibits the same pattern of any other passive of ditransitive constructions. The verb is prefixed by the passive yak- and suffixed by the inverse marker. This indicates that in addition to the person being shouted at, a cognate theme is part of the argument structure of the clause.

- (74) chu:chunaʔk ʔiyakya:xaʔxüwak
 chu:chu-nak ø= yak- ya:xʔ-aʔx -ü -w =ak
 child -DIM B3(ABS)=PASS-shout-APPL1-INV-COMI=AN
 'The boy was shouted at.' {olu3/150}

Applicative clauses equivalent to (69b)-(70b) have not been reported in other Mesoamerican languages. A possessor ascension analysis is very unlikely here since the "host" of the PSR which hypothetically ascends to direct object is a locative oblique. Obliques are ruled out as "hosts" by the Host Limitation Law of Relational Grammar (Marlett 1986).

2. The Benefactive, Malefactive Applicative küj-

Intransitive verb roots of both agentive and non-agentive types may take the prefix küj- 'APPL2' to bring into core argument status an additional argument. For instance, the non-agentive verb ʔo:k 'die' takes only one argument in its non-derived form. The person who dies is the participant cross-referenced by the absolutive on the verb.

- (75) a. tantükaw ʔo:knüwaʔ
 tan= tükaw ø= ʔo:k-nü -w =jaʔ
 A1(PSR)=father B3(ABS)=die -already-COMI=3AN
 'My father has already died.' {aand/458}

- b. ʔü:s taʔo:kam
 ʔü:tz ta= ʔo:k-am
 I B1(ABS)=die -IRRI
 'I am going to die.' {aand/727}

When the verb takes the applicative küj-, an additional malefactive participant is coded as a second core argument of the clause. In the AC, the absolutive cross-references the malefactive participant. This is particularly clear when the malefactive is first or second person, as in (76b, c).

Derived verbs with the form küj-V, similarly to non-agentive bivalent verbs, always follow the inverse pattern. That is, in this type of construction, the most salient participant, the malefactive, is outranked in the argument hierarchy by the theme.

- (76) a. küjʔo:küwxük ʔimajaw jeʔxük yoʔjwa
 ø= küj- ʔo:k-ü -w =xü=k ʔi= majaw
 B3(ABS)=APPL2-die -INV-COMI=EV=AN A3(PSR)=woman
jeʔ =xü=k yoʔjwa
 that=EV=AN man
 'It is said that his wife died on that man.'
 {olu5/11}
- b. taküjʔo:küwaʔ tanyoʔwe
 ta= küj- ʔo:k-ü -w -aʔ tan= yoʔwe
 B1(ABS)=APPL2-die -INV-COMI-NMZR A1(PSR)=husband
 'My husband, the one who died on me [...]'
 {rspf2/608}

- c. jumej minküjʔo:kij
 jumej min= küj- ʔo:k-i -j
 how A2 (ABS)=APPL2-die -INCD-INVD.I
 'How did he die on you? {rs6/49}

The fact that the absolute cross-references the malefactive makes clear that the added argument exhibits the properties of a core argument. The theme also maintains core argument properties. This is evident when the theme is animate and plural. In these contexts, the third-person plural marker -küx and the animate enclitic =ak cross-reference the theme, as in (77).

- (77) jaʔk miküjo:yküküwak
 jaʔ=k mi= küj- jo:y -küx-ü -w =ak
 3AN=AN B2 (ABS)=APPL2-be missing-PL3-INV-COMI=AN
 'They (the animals) were missing (in your
 story).' {rspf1/95}

In the AC, the theme still shares the same relativization strategy used by core arguments. In (78), the RC modifying the theme appears between brackets. Note that the verb appears nominalized within the RC and that there is no relative pronoun internal to the RC.

- (78) jumeʔatu jeʔ kawa:yu küjo:yüwaʔ jeʔ chüʔ
 petroni:la
 ø= jumej-ʔat-u jeʔ kawa:yu
 B3 (ABS)=how -DNMZR-COMI that horse
- [ø=küj- jo:y-ü -w -aʔ] jeʔ chüʔ petroni:la
 B3=APPL2-lose-INV-COMI-NMZR that HON Petrona
 'What did the horse that Petrona lost look like?'

Küj- AC's are only possible when the theme referent is third-person. Meanings such as "I died on him," "I died on you," "You died on him," "You died on me" and many others in which the theme is first or second person cannot be expressed by küj- AC's. The ill-formed examples in (79) show these combinations.

- (79) a. * ø= ta= küj- ʔo:k-w
 B3 (ABS)=B1 (ABS)=APPL2-die -COMI
 (Intended reading: 'I died on him.')
- b. * tax= küj- ʔo:k-w
 C1 (LOCAL)=APPL2-die -COMI
 (Intended reading: 'I died on you.')

To express these meanings, Olutec speakers use paraphrastic constructions such as: 'When I die she is going to suffer' or 'when you die she will miss you.'

The applicative küj- derives intransitive verbs into extended intransitive verbs (intransitive verbs with two core arguments). The bivalent derived verb does not have the properties of a transitive verb. The derived bivalent

verb may not be passivized, it never occurs with the ergative proclitic, and it does not occur in the reflexive/reciprocal construction. Thus, the type of derivation attested with küj- differs from the type of derivation that results when other applicatives occur on otherwise intransitive roots. Other applicatives increase the valence of the verb producing transitive verbs.

The context that triggers the use of küj- is another property that distinguishes this applicative from the rest of the paradigm of Olutec applicatives. The presence of küj- as a valence increasing affix does not depend on the pragmatic status of the erstwhile peripheral participant. Any time a malefactive or benefactive participant occurs in an intransitive clause, the verb must be derived by the applicative küj-. Other applicatives appear only under conditions in which the peripheral participant is pragmatically prominent, i.e., when the participant is pragmatically highly salient or when it is questioned, clefted, relativized, or conceptualized as particularly affected.

The verb in (80a) is not prefixed with küj- since the clause only contains one argument. The verb in (80b) takes küj- since the clause contains two arguments, a third-

`person theme and a first-person malefactive. The ill-formed example (80c) shows that the applicative must be prefixed to the verb when a malefactive is present in the clause.

- (80) a. kaʔka ʔikaʔi jeʔ ʔu:ra
 kaʔka ʔi= kaʔ -i jeʔ ʔu:ra
 basket A3(ABS)=descend-COMD that hour
 'At that time the basket fell down.' {vg/179}
- b. taküjkaʔüwak yaj to:ki
 ta= küj- kaʔ -ü -w =ak yaʔaj to:ki
 B1(ABS)=APPL2-descend-INV-COMI=AN this iguana
 'The iguana fell off from me.' {iguana/79}
- c. * ø= kaʔ -w =ak yaʔaj to:ki ʔü:tz
 B3(ABS)=descend-COMI=AN this iguana I
 (Intended reading: 'The iguana fell off from me.')

2.1. Verb Types and the Thematic Roles Functioning as Added Arguments

In all the examples of the küj-V construction given above, the added participant is a malefactive. The following are additional examples of clauses that include a malefactive participant as an added argument.

- (81) a. jeʔ ʔu:ra ʔiküjtükiyiy po:mo
 jeʔ ʔu:ra ʔi= küj- tük+ʔi:yʔ-i -y
 that hour A3(ABS)=APPL2=enter -COMD-INVD.C

 po:mo
 bottle
 'At that time (the dog's head) got stuck in the
 bottle.' (Lit. At that time the bottle went
 inside (its head).') {id2/70}
- b. taküjpitzümüp ma:nchawoʔk
 ta= küj- pitzüm-ü -pa ma:ncha-wok
 B1(ABS)=APPL2-exit -INV-INCI.I mark -DIM
 'Little marks are appearing on me.' {lm4/83}
- c. ʔijüʔna:pxü ʔiküjnükxiy jeʔ koʔpaʔn
 ʔi= jüʔna -pi =xü ʔi= küj- nüx-I
 A3(PSR)=behind-LOC=EV A3(ABS)=APPL2-go -COMD

 -y jeʔ koʔpan
 -INVD.C that hat
 'Her hat went off on her back.' {rsch2/35}
- d. jeʔkeʔ küjpotuküwaʔ jeʔ ʔiwo:kaʔn ʔiʔe:me
 jeʔ =k =jeʔ ø= küj- pot+tuk-ü -w =jaʔ
 that=AN=CLEFT B3(ABS)=APPL2-break -INV-COMI=3AN

 jeʔ ʔi= wo:k+an ʔi= ʔe:m+e
 that A3(PSR)=guitar A3(PSR)=string
 'The string of the guitar broke on him.'
 {rsch2/688}
- e. ʔiküjo:ypowi:ko ʔiya:we
 ʔi= küj- jo:y -pow -i -y =koj
 A3(ABS)=APPL2-be_missing-again-COMD-INVD.C=just

 ʔi= ya:we
 A3(PSR)=key
 'He lost his key again.' {rspfl/44}

- f. tuʔmi taküjpoyüwak
 tuʔmi ta= küj- po:yʔ -ü -w =ak
 once B1 (ABS)=APPL2-escape-INV-COMI=AN
 'Once it (the parrot) escaped from me.'
 {rspf2/679}

The following examples illustrate the use of küj- as an applicative that brings into core argument status a benefactive participant. The morphosyntax of the construction is the same as that attested in the previous examples, i.e., the added argument is overtly marked by the absolutive on the verb and the verb takes the inverse marker.

- (82) a. ta küʔi:kij ʔime:nyu
 ta ø= küj- ʔi:k -i -j
 JUSS B3 (ABS)=APPL2-expand-INCD-INVD.I
 ʔi= me:nyu
 A3 (PSR)=money
 'May his money grow on him.' {rss10/20}
- b. ʔiküjtijüniyakü na:xüko jeʔ tanti:yu
 ʔi= küj- tij -nü -i -y =ak
 A3 (ABS)=APPL2-stay-already-COMD-INVD.C=AN
 na:x=koj jeʔ tan= ti:yu
 land=just that A1 (PSR)=uncle
 'My uncle inherited the land.' (Lit. 'The land stayed in the possession of my uncle.')
- c. ʔiküjminiyak tuʔk sue:rte
 ʔi= küj- mi:nʔ-i -y =ak tuk sue:rte
 A3 (ABS)=APPL2-come -COMD-INVD.C=AN one luck
 'He got lucky.' (Lit. 'One luck came to him.')
- {olu9/35}

- d. ʔiküjke:kiy xikü mü:t jeʔ nü:jü
 ʔi= küj- ke:kʔ-i -y xikü mü:t jeʔ
 A3 (ABS)=APPL2-move -INCD-INVD.C scabies with that

 nü:
 water
 'He got rid of the scabies with that water.'
 {sarnozo/34}

Most of the non-agentive verbs derived by küj- have an interpretation in which the added argument benefits or suffers from the event conveyed by the intransitive verb. However, küj- is not limited to occurring just on non-agentive intransitive roots. An abilitative interpretation results when intransitive agent-oriented verbs, such as kay 'eat,' are derived by küj-. The verb kay 'eat' in its basic form may appear in intransitive and transitive constructions. An absolutive proclitic cross-references the 'eater' in the intransitive form (83a), whereas an ergative proclitic cross-reference the same participant in the direct transitive form (83b).

(83) a. Intransitive

taka:kaypa:t
 ta= ka:=kay-pa -:t
 B1 (ABS)=NEG=eat-INCI.I-PL.SAP
 'We don't eat.' {rs1/53}

b. Transitive

tankaype mixtuʔn
 tan= kay-pe mixtun
 A1 (ERG)=eat-INCI.T cat
 'I eat cats.' {rs2/86}

When kay is prefixed by küj-, the applicative introduces the participant who is able to perform the action. For instance, in (84), the theme is the thing being eaten (the tortillas), whereas the added argument is the eater, conveyed by the first-person absolutive proclitic on the verb. The construction follows the inverse pattern.

- (84) tuʔk na:xej ʔipakpakʔi:nyo takaja:küjkayüp
 tuk naʔkxej ʔi= pakpak-ʔi:yʔ-nü -e
 one when A3 (ABS)=hard -INCH -already-INCD
- ta= ka:=ja:= küj- kay-ü -pa
 B1 (ABS)=NEG=MIRAT=APPL2-eat-INV-INCI.I
 'When one (tortilla) becomes hard, I am not able
 to eat it.' {rp3/555}

Note that when the intransitive agentive verb is derived by the applicative küj-, the resulting form is an extended intransitive verb and not a transitive one. This is shown by three facts. First, the 'eater' is not conveyed by the ergative proclitic, (85a). Second the derived verb cannot be passivized, (85b). And third, the derived verb cannot occur in reflexive or reciprocal constructions, (85c).

- (85) a. * tan= ka:=ja= küj- kay-pe
A1(ERG)=NEG=MIRAT=APPL2-eat-INCI.T
- b. * \emptyset ka:=ja= yak- küj- kay-pa
B3(ABS)=NEG=MIRAT=PASS-APPL2-eat-INCI.I
- c. * \emptyset ka:=ja= ni- küj- kay-ü -pa
B3(ABS)=NEG=MIRAT=RFLX-APPL2-eat-INV-INCI.I

In contrast, canonical transitive verbs mark their agent with an ergative proclitic, (86a); they may be passivized, (86b); and they may occur in the reflexive/reciprocal construction, (86c).

- (86) a. tzu?chinü:jü ?ü:s tankaype
tzu?tzi-nü: ?ü:tz tan= kay-pe
meat- water I A1(ERG)=eat-INCI.T
'I eat meat soup.' {rspf2/545}
- b. yakaypaxü:ke? xu?niwo?k
 \emptyset yak- kay-pa =xü=k =je? xu?ni-wok
B3(ABS)=PASS-eat-INCI.I=EV=AN=that dog -DIM
'It is said that the little dogs may be eaten.'
{rs2/112}
- c. je? ?u:raxü?k ?ixi? ?inikaykūxij
je? ?u:ra=xü=k ?ix+?i:y?-i
that hour =EV=AN begin -COMD
- ?i= ni- kay-kūx-i -j
A3(ABS)=RECP-eat-PL3-COMI-IND.I
'At that time, they began to eat among each other.'

The following examples also share the abilitative reading attested in (84). A clause with an intransitive

agentive verb derived with küj- contains two core arguments. The first argument, which is part of the lexical semantics of the verb, is a theme. The second argument, which is an added argument, is an agent. In all the examples the theme is inanimate.

- (87) a. taka:küjyukpüküp tantukmüm
 ta= ka:=küj- yuk- pük -ü -pa
 B1 (ABS)=NEG=APPL2-UPWARDS-grab-INV-INCI.I
 tan= tukmüm
 A1 (PSR)=alone
 'I was not able to lift it by myself.' {lm2/199}
- b. taküjtzapiyü?küp ya?aj kuxta?t
 ta= küj- tzap+piyü?k-ü -pa ya?aj kuxtat
 B1 (AB)=APPL2-lift -INV-INC.I this sack
 'I can lift the sack.'
- c. küjwiritüw mu:ta?n
 ø= küj- wiritit-ü -w mu:t+an
 B3 (ABS)=APPL2-spin -INV-COMI top
 'He was able to spin the top.'

When the theme is animate, the resulting clause has an adversative causative reading. That is, the added argument represents the cause, whereas the theme stands for the causee. The adversative reading is obtained due to resistance offered by the theme or due to the general circumstances that make it difficult for the event to take place. Interestingly, unlike other lexical and derived

causatives, the applicative form is not transitive since it maintains all the properties of extended intransitive verbs.

- (88) a. taküjʔe:püwak chu:chunaʔk ʔenke ʔiwinapak ʔiʔoyi
 ta= küj- ʔe:p-ü -w =ak chu:chu-nak
 B1 (ABS)=APPL2-see -INV-COMI=AN child -DIM

ʔenke ʔi= win+nap -pa =k ʔi= ʔoy-i
 though A3 (ABS)=be_blind-INCI.I=AN A3 (ABS)=be-COMD
 'I was able to make the kid open his eyes
 although he was blind.'

- b. taküjchi:wüwak chu:chunaʔk
 ta= küj- chi:wʔ-ü -w =ak chu:chu-nak
 B1 (ABS)=APPL2-bathe -INV-COMI=AN child -DIM
 'I was able bathe the child.'

- c. taküjxu:xüp jeʔk yoʔjwa
 ta= küj- xu:xʔ -ü -pa jeʔ =k yoʔjwa
 B1 (ABS)=APPL2-whistle-INV-INC.I that=AN man
 'I am making that man whistle'

The causative and adversative meanings obtained when the applicative küj- occurs with intransitive agentive verbs are clearly related. However, it is not clear what was the directionality of the semantic change. That is, there is no good evidence that supports a diachronic scenario in which the abilitative meaning occurred first and the adversative meaning developed as a semantic extension, or the contrary. Another point that has to be explained in a future study is the semantic relation between the benefactive/malefactive

reading attested when the applicative occurs with non-agentive verbs, and the two meanings obtained when the same applicative occurs with agentive verbs. Since cross-linguistically it is more common for an applicative to exhibit a benefactive/malefactive reading, it seems more likely that this was the first attested meaning of the AC and that the other two readings were later developments.

2.2. The küj-V with External Possessor (EP) Interpretation

Küj- applicative clauses with a possessed theme can be interpreted as EP constructions when the possessor (PSR) of the theme is coreferential with the benefactive/malefactive participant introduced by the applicative. The semantic PSR in the examples shown in (89) is expressed in two slots within the clause. The PSR occurs in the form of a proclitic before the possessed noun expressing the theme, and in the form of an absolutive proclitic before the applicative. The absolutive signals the malefactive/benefactive extra-thematic participant.

- (89) a. miküjma:jüwak mimajaw
 mi= küj- ma:jʔ-ü -w =ak min= majaw
 B2 (ABS)=APPL2-sleep-INV-COMI=AN A2 (PSR)=woman
 'Your wife fell asleep on you.'

- b. mü:txü?k je?majaw ?ijü?na:pxü?k ?iküjñükxüniy
 ?iko?pa?n
 mü:t=xü=k je? majaw ?i= jü?na -pi =xü=k
 and =EV=AN that woman A3(PSR)=behind-LOC=EV=AN
- ?i= küj-nükx-nü -i -y ?i= ko?pan
 A3(ABS)=APPL2-go-already-COMD-INVD.C A3(PSR)=hat
 'And behind of that woman went her hat.'
 {rsch2/89}
- c. ?iküjminiyak ?iswe:rte
?i= küj- mi:n?-i -y =ak ?i= swe:rte
 A3(ABS)=APPL2-come-COMD-INVD.C=AN A3(PSR)=luck
 'His luck came to him.' {olu9/68}
- d. küjka?üwak ?iko?pa?n
 ø= küj- ka? -ü -w =ak ?i= ko?pan
 B3(ABS)=APPL2-descend-INV-COMI=AN A3(PSR)=hat
 'His hat fell down.' {rspf1/172}
- e. ?ikü?o:k iyakü je?k ?ima?tzu
?i= küj- ?o:k-i -y =ak je? =k
 A3(ABS)=APPL2-die -COMD-INVD.C=AN that=AN
- ?i= ma?tzu
 A3(PSR)=lover
 'His lover died on him' {olu5/20}

The küj- construction with an EP interpretation is used when the PSR of the theme is construed as an affected participant. A nonderived counterpart of the AC is used when the PSR of the theme is not highlighted as an affected participant. Compare the same verbs with the applicative in (89) with the ones without the applicative in (90). Note that in both types of clauses a PSR proclitic appears before the theme.

- (90) a. ma:juk mimajaw
 ø= ma:jʔ-u =k min= majaw
 B3 (ABS)=sleep-COM=AN A2 (PSR)=woman
 'Your wife fell asleep.'
- b. ʔinükxixüʔk jama:k ʔitzüʔ
 ʔi= nüx-i =xü=k jamaj=k ʔi= tzüʔ
 A3 (ABS)=go -COMD=EV=AN that =AN A3 (PSR)=mother
 'My mother went.' {rayo/12}
- c. mimpaxüʔk jeʔxük ʔimaʔtzu
 ø= mi:nʔ-pa =xü=k jeʔ =xü=k
 B3 (ABS)=come-INCI.I=EV=AN that=EV=AN

ʔi= maʔtzu
 A3 (PSR)=lover
 'It is said that his lover was coming.'
 {olu5/131}
- d. nikaʔkaʔpa ʔiʔakü
 ø= ni= ka:=kaʔ -pa ʔi= ʔak
 B3 (ABS)=NEG=NEG=descend-INCI.I A3 (PSR)=skin
 'Its skin is not coming down.' {apuesta/101}
- e. tantükawakü ʔo:knüwaʔ jaʔ
tan= tükaw =ak ø= ʔo:k-nü -w -aʔ
 A1 (PSR)=father=AN B3 (ABS)=die-already-COMI-PERF

 jaʔ
 3AN
 'My father has already passed away.' {olu27/126}

There are küj- constructions in which the PSR of the theme is not coreferential with the argument introduced by the applicative. In (91), the marker min=, before the noun, refers to the second-person PSR of the theme; whereas the absolutive ta=, before the verb root, refers to the first-person malefactive introduced by the applicative küj-.

- (91) taküjʔo:küwak minmajaw tanküʔpi
 ta= küj- ʔo:k-ü -w =ak min= majaw
 B1 (ABS)=APPL2-die -INV-COM=AN A2 (PSR)=woman
 tan= küʔ -pi
 A1 (PSR)=hand-LOC
 'Your woman died on me, on my hands.'

Sentences such as (91) clearly show that a "possessor ascension" analysis of clauses such as (89a-e) is unfortunate. In these examples, it is clearly not the case that the applicative "promotes" or "raises" the dependent of the theme (the PSR) to an argument position and that the theme nominal is "demoted" to the chômeur relation. In both (89e) and (91), the applicatives introduce an extra participant to the clause. The clause with the derived verb now has two core arguments. The EP reading in (89a-e) is obtained only when the extra participant (the malefactive/benefactive) introduced by the applicative is coreferential with the possessor of the theme. However, constructions such as (91), where the malefactive is not coreferential with the possessor of the theme, clearly show that the extra core argument of küj- constructions cannot be analyzed as a hypothetical "copy" of the possessor of the theme.

3. Instrumental Applicative toj-

The applicative prefix toj- 'instrumental (INSTR)'¹¹ brings into core argument status instrumental participants that are not licensed by the semantics of the verb root. For instance, the root nükx 'go' is an intransitive verb whose only core argument is the semantic participant expressing the "mover" of the action, (92a). This root may be derived by the prefix toj- resulting in the transitive verb toj-nükx 'go using something'. In (92b), the phrase ja:tukak tuʔaw is a semantic "instrument" acting as the primary object of the clause.

- (92) a. ka:nükxuk jeʔk majaw ʔina:xmü
 ø= ka:=nükx-u =k jeʔ =k majaw
 B3(ABS)=NEG=go -COMI=AN that=AN woman
 ʔi= na:x -mü
 A3(PSR)=earth-LOC
 'That woman didn't go to her home town.'
 {olul/293}

- b. ja:tukak tuʔaw ʔitojnükxu
 ja: -tuk=ak tuʔaw ʔi= toj- nükx-u
 another-one=AN road A3(ERG)=INSTR-go -COMI
 'He went using the other road.' {rspfl/373}

3.1. Canonical and Extended Meanings

In the canonical cases the prefix toj- brings into core argument status participants that are canonical instruments, i.e., entities that are used by an actor to perform an action or event. The verb derived by an applicative toj- can be glossed schematically as 'X acts with Z' if the verb root is intransitive, or 'X acts on Y with Z' if the verb root is transitive.

- (93) a. je? tantojpetpe namü?aj tüpxi
 je? tan= toj- pet -pe nam+?aj tüpx+i
 that A1 (ERG)=INSTR-ascend-INCI.T new rope
 'I use the new rope to ascend.' {viaj2/44}
- b. tojkaya je? me:nyu
toj- kay-a je? me:nyu
 INSTR-eat-IMPR that money
 'Eat with that money! {rspf2/656}
- c. mü:tak tantzü? de gwadalu:pe ?itojni:nu?xa?nej
 ?itukuna?k
 mü:t=ak tan= tzü? de gwadaku:pe
 and =AN A1 (PSR)=mother of Guadalupe
- ?i= toj- ni:+nu?x-a?n+e+j ?i= tuku -nak
 A3 (ABS)=INSTR-cover -INV+IRRD A3 (PSR)=cloth-DIM
 'May the Virgin of Guadalupe cover him with her
shawl.' {rs8/125}

- d. jem ?ixi? tu?k kuyuna?k xtojwi?kxpitzümi
 je?+mü ?ix+?i:y?-i tuk kuy -?unak
 there begin -COMD one tree-DIM
- tax= toj- wi?kx -pitzüm -i
 C1(ERG)=INSTR-pull_out-DIR:out-COMD
 'Right there I began to remove it (the grease)
 with a little stick.' {apuesta/91}
- e. ta mintojwospe:t minkü?tekü mi?ani?ama:t
 ta min= toj- wotz-pe -:t min=
 COND A2(ERG)=INSTR-pull-INCI.T-PL.SAP A2(PSR)
- kü? -tek mi= ?an+?i:y?-am -a:t
 =hand-PL.SAP B2(ABS)=get_tired-IRRI-PL.SAP
 'If you pull it (the plant) with your hands, you
 are going to get tired.' {olu28/735}

In a few instances the applicative toj- brings into core argument status semantic locatives. The contrast between locatives marked by a postposition and locatives functioning as core arguments in clauses with an applied verb is illustrated in examples (94) to (96).

(94) a. Locative is Oblique

yam miyokxpeta?n
 ya? -mü min= yokx-pet -a?n
 this-LOC A2(ABS)=jump-DIR:up-IRRD
 'You are going to jump here.' {piojo/49}

b. Locative is Core

tatojyokxpetne:k ?elefa:nte
 ta= toj- yokx-pet -nü -i =k
 C3 (ERG)=INSTR-jump-DIR:up-already-COMD=AN

?elefa:nte
 elephant
 'He jumped on the top of the elephant.'
 {rspf2/331}

(95) a. Locative is Oblique

jenkok ?iyopopti? ?owa
je? -mü =koj =k ?i= yopop -ti:y?-i
 that-LOC=just=AN A3 (ABS)=get_excited-ITER -INCD

?owa
 parrot
 'The parrot is all excited right there.'
 {duenyo/17}

b. Locative is Core

?u:xukak tatojyopopüp
 ?u:xuk =ak ta= toj- yopop -ü -pa
 mosquito=AN B1 (ABS)=INSTR-get_excited-INV-INCI.I
 'The small mosquitoes get excited at me.'

(96) a. Locative is Oblique

kuytümwinmük ?ipete
kuytüm -win -mü =k ?i= pet -e
 avocado-RN:top-LOC=AN A3 (ABS)=ascend-INCD
 'He is going up on the top of the tree.'
 {rspf1/272}

b. Locative is Core

taʔutüw seme xtojpete ma:nkukuyütüʔk
 ta= ʔut -ü -w seme
 B1 (ABS)=like-INV-COMI very

tax= toj- pet -e ma:nku-kuy -tük
 C1 (ERG)=INSTR-ascend-INCD mango -tree-PL
 'I liked very much to climb the mango trees.'
 {viaj2/33}

3.2. Oblique vs. Core Instrumental Arguments

The derivation via the instrumental applicative is optional in the sense that clauses with the same verb root can take an oblique or a core instrument. As an illustration consider (97) and (98). Oblique instruments are marked by the preposition mü:t 'with,' as in (97a) and (98a). Applied instruments functioning as core arguments are unmarked, as in (97b) and (98b).

- (97) a. jumü ʔiyoxtoni mü:t jeʔ ma:kinanakü
 jumü ʔi= yox+e+tun-i mü:t jeʔ ma:kina-nak
 where A3 (ABS)=work -INCD with that machine-DIM
 'Where is he working with that little machine?'
 {burdel/47}

b. mina:xü jaje?k ?artu:ro ?itojyoxetumpe
min na:x ja?=je? =k ?artu:ro
 A2 (PSR)=earth DEF=CLEFT=AN Arturo

?i= toj- yox+e+tun-pe
 A3 (ERG)=INSTR-work -INCI.T
 'It is Arturo who works using your land.'
 {lm3/430}

(98) a. je:pak ?inixotzej mü:t tüpxi
 je?+pi=ak ?i= ni- xotz-e -j mü:t
 there =AN A3 (ABS)=RFLX-tie -INCD-INVD.I with

tüpx+i
 rope
 'He tied himself there with a rope.' {olul/168}

b. tyakyü?ki tüpxi para tatojxotza?nak küpi
 ta= yak- yü?k -i tüpx+i para
 C3 (ERG)=CAUS-be_ready-COMD rope for

ta= toj- xotz-a?n =ak küpi
 C3 (ERG)=INSTR-tie -IRRD=AN firewood
 'He got the rope ready to tie the firewood.'
 {olul/77}

There are four morphosyntactic features that indicate that the applied instrument is a core argument of the clause. First, applied instruments are not marked by adpositions, whereas instruments that are not licensed by an underived verb are always marked by the preposition mü:t. Second, the plural suffix -küx on the verb cross-references third-person arguments with core argument status (i.e., S of intransitives, A and PO of transitives). Applied instruments with plural reference can be cross-

referenced by the suffix -kūx on the verb, as in (99a) and (100a); whereas oblique instruments cannot, as in (99b) and (100b).

- (99) a. tantojʔawkajkūxu mesko ʔawkajaʔn tükawku
 tan= toj- ʔaw+kaj-kūx-u metzko ʔaw+kaj+an
 A1 (ERG)=INSTR-close -PL3-COMI two bar

tük+ʔaw+kuy
 door

'I barred the door with two bars.'

- b. * tanʔawkajkūxu tuʔk tükawku mü:t mesko ʔawkajaʔn
 tan= ʔaw+kaj-kūx-u tuk tük+ʔaw+kuy mü:t
 A1 (ERG)=close -PL3-COMI one door with

metzko ʔaw+kaj+an
 two bar

(Intended reading: 'I barred a door with two bars.')

- (100) a. mesko burrowokü ʔitojtzümpetkūxu mo:kü
metzko burro -wok
 two donkey-DIM

ʔi= toj- tzüm -pet -kūx-u mo:k
 A3 (ERG)=INSTR-carry-DIR:up-PL3-COMI corn
 'I carried the corn using two donkeys.'

- b.* mü:t mesko burrowokü ʔitojtzümpetkūxu mo:kü
mü:t metzko burro -wok
 with two donkey-DIM

ʔi= tzüm -pet -kūx-u mo:k
 A3 (ERG)=carry-DIR:up-PL3-COMI corn

(Intended reading: 'I carried the corn with two donkeys.')

Third, applied instruments referring to third-person animates, as in (101a), can be marked on the verb by the

enclitic =(a)k analogously to animate subject of intransitives (S), agent of transitives (A) and primary objects of transitives (PO). In contrast, oblique instruments do not share this feature. The animate enclitic =ak in (101b) cross-referencing the oblique instrument produces an ill-formed construction.

- (101) a. yaʔaj kawa:yutük mintojamatküxama:tak ʔu:xkupakmü
yaʔaj kawa:yu-tük min= toj- jamat -küx-am
 this horse -PL A2(ERG)=INSTR-arrive-PL3-IRRI
- a:t =ak ʔu:x+kopak-mü
 -PL.SAP=AN Sayula -LOC
 'You (PL) are going to get to Sayula using these horses.'
- b.* mijamatama:tak mü:t yaʔaj kawa:yutük ʔu:xkupakmü
 min= jamat -am -a:t =ak mü:t yaʔaj
 A2(ERG)=arrive-IRRI-PL.SAP=AN with this
- kawa:yu-tük ʔu:x+kopak-mü
 horse -PL Sayula -LOC
 (Intended reading: 'You are going to get to Sayula with these horses.')

Fourth, applied instruments share the relativization strategy common to core arguments. Recall that core arguments are relativized by nominalized relative clauses that use the gapping strategy. The examples in (102) are relativizations of core S, A and PO. Relative clauses in these examples appear between brackets.

- (102) a. Relativized S
 ?oya nũmpaxũ ?oyu?a? ?ikama?p
 ø= ?oya ø= nũm -pa =xũ
 B3 (ABS)=fine B3 (ABS)=tell-INCI.I=EV

 [ø= ?oy -u -?a? ?i= kama -pi]
 B3 (ABS)=go (COM)-COMI-NMZR A3 (PSR)=corn_field-LOC
 'It's fine, he said, the one who went to the
 cornfield.' {rs4/145}
- b. Relativized A
 tukak tanto:kayu ?itumpe? chikula?t
 tuk=ak tan= to:k-ay -u
 one=AN A1 (ERG)=sell-APPL1-COMI

 [?i= tun-pe -? chikulat]
 A3 (ERG)=do -INCI.T-NMZR chocolate
 'I sold it to the one who sells chocolate.'
 {aandc/375}
- c. Relativized PO
 kũxu ya?aj tanũmwa?
 ø= kũx -u ya?aj [tan= nũm-w -?a?]
 B3 (ABS)=finish-COMI this A1 (ERG)=say-COMI-NMZR
 'It finished what I say.' {apuesta/144}

In both (103a and b), the applied instrument is modified by a RC (between brackets) without an internal relative pronoun. Note that the verb is nominalized by -?e? in the same way that are verbs which are part of RC's modifying core arguments.

- (103) a. takafitüpa:t ni ti: tantojpetame?e:t
 ta= ka=?it -ü -pa -:t ni+ti:
 B1 (ABS)=NEG=exist-INV-INCI.I-PL.SAP nothing
- [tan= toj- pet -am -?e? -e:t]
 A1 (ERG)=INSTR-ascend-IRRI-NMZR-PL.SAP
 'We do not have anything to go up with.'
 {zopil/76}
- b. taka:ja?ita:nüp tantojni:jützüta:me? tankü?xta
 ta= ka:-ja= ?it -an -ü -pa
 B1 (ABS)=NEG-MIRAT=exist-IRRD-INV-INCI.I
- [tan= toj- ni:+jützüta-am-?e? tan= kü?x+ta]
 A1 (ERG)=INSTR-massage -IRRI-NMZR A1 (PSR)=foot
 '(If I sell it to you) I won't have the thing
 that I use to massage my foot.' {lonja/56}

In contrast, relative clauses that modify oblique locatives include an internal relative pronoun and are finite. The relative pronoun jumü in (104) is being modified by the finite relative clause that follows.

- (104) ka:mijami?n yam jumü tankayanto:ke:tü?s
 ka:=mi= ja= mi:n?-a ya?+mü
 NEG=B2 (ABS)=MIRAT=come -IMPR here
- [jumü tan= kay+an-to:k-e -:t -ütz]
 where A1 (ABS)=food -sell-INCD-PL.SAP-EXCL
 'Don't come anymore here where we are selling
 food!' {rs3/77}

3.3. Intransitive Verbs Derived by toj-

Intransitive verb roots derived by the instrumental applicative yield transitive verbs. The derived verb is affixed by the aspect marker and the pronominal proclitic commonly associated with transitive verbs. Applied verbs in the incompletive take -pe, (105b), whereas underived intransitive verbs under the same contexts take -pa, (105a). The "S" of the underived intransitive verb is marked by the absolutive, as in (105a) and (106a), whereas the same semantic participant of the applied counterpart is marked by the ergative, as in (105b) and (106b).

(105) a. Intransitive

ʔespak mü:t jeʔ wo:kaʔn
 ø= ʔetz -pa =k mü:t jeʔ wo:k+an
 B3(ABS)=dance-INCI.I=AN with that guitar
 'He (ABS) is dancing with the guitar.'

b. Derived Transitive

ʔitojʔespek jeʔ wo:kaʔn
 ʔi= toj- ʔetz -pe =k jeʔ wo:k+an
 A3(ERG)=INSTR-dance-INCI.T=AN that guitar
 'He (ERG) is dancing with the guitar.'
 {rsch2/700}

(106) a. Intransitive

tayoxtunu mü:t je? wata:ka
 ta= yox+e+tun-u mü:t je? wata:ka
 B1(ABS)=work -COMI with that hoe
 'I (ABS) worked with that hoe.'

b. Derived Transitive

tantojyoxtunu?a?mpok je? wata:ka
 tan= toj- yox+e+tun-u =?ampok je? wata:ka
 A1(ERG)=INSTR-work -COMI=also that hoe
 'I (ERG) also worked with that hoe.' {rspf2/30}

The applied instrument of a derived intransitive verb acquires the properties that are usually associated with the single object of canonical transitive verbs. The following are two of these properties: First, applied instruments appear cross-referenced by the absolutive proclitic on the verb in the inverse, as in (107a-b).

(107) a. tatojüyta:küwa? ya?k ko?panchi?tütü?k
 ta= toj- jüy+ta:k?-ü -w =a? ya? =ak
 B1(ABS)=INSTR-play -INV-COMI=AN that=AN

ko?pan+chi?t+i-tük
 rebels -PL
 'The rebels raped me.' (Lit. The rebels used me to play.) {aandc/84}

b. ?u:xukak tatojyopopüp
 ?u:xuk =ak ta= toj- yopop -ü -pa
 mosquito=AN B1(ABS)=INSTR-get_excited-INV-INCI.I
 'The mosquitoes are getting excited over me.'
 {olu28/188}

Second, applied instruments of derived intransitives are the subjects of their passive counterparts. The subject of a passive is marked on the verb by the absolutive proclitic. The absolutive in (108a-b) refers to the applied instrument.

- (108) a. naʔkxej tanyojwaʔati jata tayaktojpetpa
 naʔkxej tan= yojwa-ʔat -i jata
 when A1 (ABS)=man -consider-COMD right_away
- ta= yak- toj- pet -pa
 B1 (ABS)=PASS-INSTR-ascend-INCI.I
 'When I was young I was climbed on immediately.'
 {C11a/59/765}
- b. yaktojamatpak yaʔaj kawa:yu kamaʔp
 ∅= yak- toj- jamat -am =k yaʔaj kawa:yu
 B3 (ABS)=PASS-INSTR-arrive-IRRI=AN this horse
- kama -pi
 cornfield-LOC
 'With this horse (somebody) is going to get to the cornfield.'

The plural marker on the verb is an additional indication that the applied instrument is the subject of the passive clause. Core arguments are the only participants that can cross-reference the verbal plural suffix -kūx. In the passive of derived intransitives, applied instruments with plural reference can be cross-referenced by -kūx, as in (109).

- (109) yaktojamatküxpak yaʔaj kawa:yutüʔk kamaʔp
 ø= yak- toj- jamat -küx-pa =k
 B3 (ABS)=PASS-INSTR-arrive-Pl3-INCI.I=AN
- yaʔaj kawa:yu-tük kama -pi
 this horse -PL cornfield-LOC
 'With these horses (somebody) is going to get to
 the cornfield.'

On the basis of these morphosyntactic properties, it can be concluded that intransitive verbs derived by the applicative toj- are transitive and that the applied instrument functions as PO.

3.4. Transitive Verbs Derived by toj-

When derived by toj-, transitive roots yield ditransitive verbs, i.e., these verbs license three core arguments: an agent, a theme and an instrument. In the underived construction the instrument is an oblique argument marked by the preposition mü:t. In the applied construction the instrument is coded as a direct core argument.

(110) a. Transitive

ʔiyakpakawu mü:t ʔikoʔpaʔk
 ʔi= yak- pakaw -u mü:t ʔi= koʔpak
 A3(ERG)=CAUS-straight-COMI with A3(PSR)=head
 'He straightened it (the bar) with his head.'
 {rspfl/107}

b. Derived Ditransitive

ʔitojyakpakawu ʔikoʔpaʔk
 ʔi= toj- yak- pakaw -u ʔi= koʔpak
 A3(ERG)=INSTR-CAUS-straight-COMI A3(PSR)=head
 'He straightened it with his head.'

In the direct construction with derived ditransitive verbs, as in (111a-b), the semantic agent functions as the subject of the clause, the theme is the PO, and the added instrument is the SO. The agent is marked by the ergative proclitic on the verb.

(111) a. jaʔk ʔitojni:ki:pu ʔitzujiʔk
 jaʔ=k ʔi= toj- ni:- ki:p -u
 he=AN A3(ERG)=INSTR-BODY-clean-COMI

ʔi= tzuji+ik
 A3(PSR)=saliva
 'He_i cleaned (his_j face) with his_i saliva.'

b. mü:t jeʔ ʔu:rak ʔitükaw taʔu:kixüʔk nü:jü
 ʔitojni:xiʔkxuk jeʔk ʔiʔawoʔk

mü:t jeʔ ʔu:ra=k ʔi= tükaw ta= ʔu:k
 and that hour=AN A3(PSR)=father C3(ERG)=drink

-i =xü=k nü: ʔi= toj- ni:+xiʔkx-u =k
 -COMD=EV=AN water A3(ERG)=INSTR-sprinkle -COMI=AN

jeʔ =k ʔi= ʔawok
 that=AN A3(PSR)=offspring
 'At that time his father drank water and
 sprinkled his son with it.' {rschl/371-2}

The theme and the instrument may appear as unflagged nominal phrases (without an adposition) or may be anaphorically recovered without being explicitly marked on the verb or on the clause. In (111a), ʔi=tzuj+ik 'his saliva' stands as the instrument whereas the theme is not explicitly expressed. In (111b), the instrument of the second clause is the nominal nü 'water' and is also the theme of the previous clause. The theme of the applied verb toj-ni:+xiʔkx 'sprinkle with' is expressed by the nominal ʔi=ʔawok 'his son'.

There are three morphosyntactic facts that indicate that the theme, and not the instrument, is the PO of ditransitive clauses with applied instruments. First, in inverse constructions, the theme and not the instrument is overtly marked by the absolutive proclitic. The absolutive

referring to the theme is first person in (112a), second person in (112b), and third person in (112c).

- (112) a. tüpxije? tatojtzumüwak xuxta:tu
 tüpxi=je? ta= toj- tzum-ü -w =ak
 rope =CLEFT B1(ABS)=INSTR-tie -INV-COMI=AN

xuxta:tu
 soldier

'It is with rope that the soldier tied me up.'

- b. ti: mitojtzüküwü
 ti: mi= toj- tzük-ü -w
 what B2(ABS)=INSTR-cut -INV-COMI
 'What did you cut with?'

- c. mü:tak tantzü? de gwadalu:pe ?itojni:nu?xa?nej
 ?itukuna?k
 mü:t=ak tan= tzü? de gwadalu:pe
 and =AN A1(PSR)=mother PREP Guadalupe

?i= toj- ni:- nu?x -a?n -e -j
 A3(ABS)=INSTR-BODY-cover-IRR-INC-INV.D.I

?i= tuku -nak
 A3(PSR)=cloth-DIM

'May Our Mother Guadalupe (the Virgin) cover him
 with her little cape.' {rs8/125}

Second, in passives, the theme and not the instrument is the subject expressed by the absolutive on the verb. The theme is first person in (113a), second person in (113b), and third person in (113c, d).¹²

- (113) a. tüpxi tayaktojtzumpa
 tüpxi ta= yak- toj- tzum-pa
 rope B1(ABS)=PASS-INSTR-tie -INCI.I
 'I am being tied with rope.'

- b. yaʔjeʔ machi:ti miyaktojkaʔtzwaʔ
 yaʔ=jeʔ machi:ti mi= yak- toj- kaʔtz
 this=CLEFT machete B2(ABS)=PASS-INSTR-cut
 -w -aʔ
 -COMI-NMZR
 'You were slashed with the machete.'
- c. jeʔ chu:chuʔaj yaktojni:xiʔkxu nü:jü
 jeʔ ø= chu:chu-ʔaj ø= yak- toj- ni:+xiʔkx
 that B3(ABS)=small -NMZR B3=PASS-INSTR-sprinkle
 -u nü:
 -COMI water
 'That little kid (lit. the one who is small) was
 sprinkled with water.' {rschl/373}
- d. mü:t dejem mixtuʔtaʔan ʔarrosʔunaʔk mü: jeʔ
 yaktojkü:tam
 mü:t de+jeʔ+mü mix= tu:tʔ-aʔ -an
 and after_that C2(ERG)=put -APPL1-IRRD
 ʔarrotz-ʔunak mü:t jeʔ
 rice -DIM with that
 ø= yak- toj- kü:t -am
 B3(ABS)=PASS-INSTR-grind-IRRI
 'And after that you are going to put rice on (the
 mix of chocolate and sugar). It (the mix) is
 going to be ground with that (the rice).'

Third, in reflexive and reciprocal constructions, the theme, and not the instrument, is the argument that binds with the agent. The coreferential argument in reflexive and reciprocal constructions with underived transitive verbs is expressed by the absolutive proclitic on the verb. The verb is prefixed by ni- 'reflexive, reciprocal,' and the clause

follows the inverse pattern. Compare the active (114a) with the reflexive (114b).

- (114) a. jaʔajkok ʔipujpe ʔikoʔpaʔk
 jaʔ=koj =k ʔi= puɟ -pe ʔi= koʔpak
 DEF=only=AN A3(ERG)=wash-INCI.T A3(PSR)=head
 'He_i only washes his_i head.' {C7/26/9}

b. Reflexive

nipujüpak ʔantun
 ø= ni- puɟ -ü -pa =k ʔantun
 B3(ABS)=RFLX-wash-INV-INCI.I=AN Anthony
 'Anthony is washing himself.'

Compare the active (115a) with the reciprocal (115b).

- (115) a. jeʔ majawü ʔika:xpexüʔk jeʔ yoʔojwa
 jeʔ majaw ʔi= ka:x-pe =xü=k jeʔ yoʔjwa
 that woman A3(ERG)=comb-INCI.T=EV=AN that man
 'That woman is combing that man.' {rsch2/93}

b. Reciprocal

nika:xküxüpaʔ
 ø= ni- ka:x-küx-ü -pa =jaʔ
 B3(ABS)=RECP-comb-PL3-INV-INCI.I=3AN
 'They are combing each other.' {rsch2/205}

Reflexive and reciprocal constructions with verbs that carry the instrumental applicative follow two different patterns for marking person. Each pattern varies according to the order in which the reflexive and the applicative markers occur with respect to the verb root. In the first

pattern, the reflexive ni- precedes the applicative toj-. When this is the case, the coreferential argument (the one expressing the agent and theme) is marked by the absolutive proclitic on the verb. The construction is inverse, similarly to the reflexive and reciprocal constructions with underived verbs.

(116) a. tanitojpujüw xapuʔn

ta= ni- toj- puj -ü-w xapun
 B1 (ABS)=RFLX-INSTR-wash-INV-COMI soap
 'I wash myself with soap.'

b. kuchi:nu nitojka:xküxüw nimechi

kuchi:nu ∅= ni- toj- ka:x-küx-ü -w
 knife B3 (ABS)=RECP-INSTR-comb-PL3-INV-COMI

ni+mechi

pair

'The two of them combed each other with knives.'

{rsch2/260}

In the second pattern, the applicative toj- precedes the reflexive ni-. When this is the case, the coreferential argument is marked by the ergative proclitic on the verb. Similarly to all reflexive and reciprocal constructions, the examples in (117) follow the inverse pattern. Speakers use both patterns interchangeably without any obvious change in meaning.

- (117) a. tantojnnipujüw xapu?n
 tan= toj- ni- puj -ü -w xapun
 A1 (ERG)=INSTR-RFLX-wash-INV-COMI soap
 'I washed myself with soap.'
- b. tantojnitzumüw tüpxi
 tan= toj- ni- tzum-ü -w tüpxi
 A1 (ERG)=INSTR-RFLX-tie -INV-COM rope
 'I tied myself with rope.'
- c. ?itojniju:müpak ta?tziftz ?ipupujem
 ?i= toj- ni- ju:m -ü -pa =k ta?tziftz
 A3 (ERG)=INSTR-RFLX-scrub-INV-INCI.I=AN urine
 ?i= pupu -je?+mü
 A3 (PSR)=belly-LOC
 'He is scrubbing his own belly with urine.'

In sum, in ditransitive constructions with an applied instrument, the theme is clearly the PO of the clause since it shares the same syntactic properties of the single object of monotransitive clauses. The applied instrument functions as the SO of the clause, one that shares three of the syntactic properties that are associated exclusively with core arguments. First, it appears as an unflagged nominal phrase (without the instrumental preposition mü:t). Second, it may be marked by the plural marked on the verb when its reference is plural, as in (99a). And third, it relativizes using the same strategy as other core arguments, as in (103b).

3.5. The Instrumental Applicative in Context

The applicative toj- is used to indicate that the instrument (or locative) is a pragmatically salient participant. The AC is syntactically required in the following contexts: 1) when the instrument is in contrastive focus (clefted) or is highly emphatic; 2) when the instrument is questioned; 3) when the instrument is relativized; and 4) in complex sentences when one of the participants of the first clause is coreferential with the nominal referring to the instrument of a purposive or conjoined clause in second position.¹³

There are two types of mechanisms by which an instrumental nominal can express emphasis. One is via a clefting construction used when the nominal is in focus. When the instrumental is in focus, it is suffixed with the clefting enclitic =jeʔ. The verb that follows the clefted instrument always carries the applicative toj-.

- (118) a. jeʔk tzu:kü ʔiküʔxta:keʔ ʔitojyuktope
 jeʔ =k tzu:k ʔi= küʔxta=k =jeʔ
 that=AN mouse A3(PSR)=foot =AN=CLEFT
- ʔi= toj- yuk-top -pe
 A3(ERG)=INSTR-UP -throw_with slingshot-INCI.T
 'It is with its foot that the mouse is lifting it up.' {rsch2/642}

- b. jeʔjeʔ tantojni:ju:mpe
jeʔ =jeʔ tan= toj- ni:+ju:m-pe
 that=CLEFT A1(ERG)=INSTR-rub -INCI.T
 'It is with that (strip of meat) that I rub it
 (my foot).' {lonja/66}
- c. jeʔjeʔ tantojtzoyi:pe
jeʔ =jeʔ tan= toj- tzoy+ʔi:yʔ-pe
 that=CLEFT A1(ERG)=INSTR-cure -INCI.T
 'It is with that (strip of meat) that I cure it
 (my foot).' {lonja/67}
- d. yaʔj kuyüjeʔ tantojtukwaʔ ma:ngu
yaʔj kuy =jeʔ tan= toj- tuk-w -aʔ
 this stick=CLEFT A1(ERG)=INSTR-cut-COMI-NMZR
 ma:ngu
 mango
 'This is the stick that I cut the mangoes with.'

In addition to clefting, emphasis can be expressed by fronting the nominal to preverbal position without any additional marking. In the following examples the fronted instrumental is registered as a core argument of the derived verb that follows. Note that the fronted nominal does not take the clefting enclitic =jeʔ, whereas the verb is prefixed by toj-.

- (119) a. jeʔ ʔitojatpe kakawʔu:pi

jeʔ ʔi= toj- jat -pe kakaw-ʔu:p+i
 that A3(ERG)=INSTR-happen-INCI.T cocoa-sauce
 'With that (certain root), he prepares a
 chocolate drink.' {mi2/137}

- b. tukok ʔiwinü tatojʔe:pi
tuk-koj =k ʔi= win ta= toj- ʔe:p-i
 one-just=AN A3(PSR)=eye C3(ERG)=INSTR-see -INCD
 'Only with one eye, he sees.' {rp3/296}

- c. *dejem jaʔk tuʔk somwri:ya ʔitojmoyu ʔoyamej jeʔ
yoʔjwa*
de+jeʔ+mü jaʔ=k tuk somwri:ya ʔi= toj-
and_then DEF=AN one umbrella A3(ERG)=INSTR-
- mo:yʔ-u ʔoyamej jeʔ yoʔjwa*
give -COMI properly that man
 'And then, with an umbrella, she hit that man
 very hard.' (Lit. 'And then, with an umbrella she
 gave hard (hits) to that man.') {rschl/75}
- d. *jeʔk ʔituʔsta ʔitojyakʔa:wa:tzu tükʔawku*
jeʔ =k ʔi= tuʔtz+ta ʔi= toj-
that=AN A3(PSR)=tail A3(ERG)=INSTR-
- yak+ʔaw+wa:tʔ-u tük- ʔaw+kuy*
open -COMI house-entrance
 'With its tail, (the mouse) opened the door.'
 {rspfl/65}

A second context where the instrumental applicative has to be used is in questions about the instrument. These questions are formed using the question word *ti:* 'what, which' that is also used to question non-human A, S or O, as in (120a-c).

- (120) a. *ti: mijatüp*
ti: mi= jat -ü -pa
what B2(ABS)=happen-INV-INCI.I
 'What happened to you?' {lm1/15}
- b. *ti:jeʔ pukujwaʔ*
ti: =jeʔ ø= pukuj-w -aʔ
what=CLEFT B3(ABS)=move -COMI-NMZR
 'What is the thing that moves?' {id2/209}

- c. ti: tankayamü
 ti: tan= kay-am
 what A1(ERG)=eat-IRRI
 'What am I going to eat?' {aand/194}

When an instrument is questioned, the word ti: is followed by the verb prefixed by toj-. The verb in examples (121a, b) is active, whereas the verb in (121c) is passive.

- (121) a. ti:k ?itojme?tkotu je? nü:nü
 ti: =k ?i= toj- me?t+kot-u je? nü:n
 what=AN A3(ERG)=INSTR-press -COMI that tortilla
 'What did he press the tortilla with?' {rspf2/84}
- b. ti:k ?itojuyam ja:tu?k jaj ko:xo
 ti: =k ?i= toj- juy-am ja:+tuk ja? ko:xo
 what=AN A3(ERG)=INSTR-buy-IRRI another DEF day
 'What is she going to buy it with next day.'
 {olu6/53}
- c. ti: yaktojuyamü
 ti: ø= yak- toj- juy-am
 what B3(ABS)=PASS-INSTR-buy-IRRI
 'What kind of thing is going to be used to buy it?' {rspf2/599}

The third context in which the AC occurs obligatorily is in instrumental relative clauses. When the head of the relative clause is coreferential with the instrument within the relative clause, the verb in the relative clause is prefixed by toj-. The strategy used to relativize instruments is similar to the strategy used to relativize other core arguments. The relative clause is a

nominalization. In (122a), toj- transitivizes the intransitive verb pet 'ascend'. In (122b), toj- produces a ditransitive verb out of the transitive verb ni:+jützütz 'massage'.

- (122) a. jeʔk paworrealü kaʔ ʔitüpak ʔiniti: ʔitojpeta:meʔ
 yukpi
 jeʔ =k paworreal ø= ka:=ʔit -ü -pa =k
 that=AN peacock B3(ABS)=NEG=exist-INV-INCI.I=AN
- ʔi= ni- ti: [ʔi= toj- pet -am -ʔeʔ
 A3(PSR)=NEG-thing A3(ERG)=INSTR-ascend-IRRI-NMZR
- yuk -pi]
 upwards-LOC
 'The peacock doesn't have anything [to ascend to the sky with].' {zopil/40}
- b. ta taxto:kaypa taka:jaʔita:nüp
 tantojni:jützützta:meʔ tanküʔxta
- ta tax= to:k-ay -pa
 COND C1(LOCAL)=sell-APPL1-INCI.I
- ta= ka:-ja= ʔit -an -ü -pa
 B1(ABS)=NEG-MIRAT=exist-IRRD-INV-INCI.I
- [tan= toj- ni:+jützütz-am -ʔeʔ tan= küʔx+ta]
 A1(ERG)=INSTR-massage -IRRI-NMZR A1(PSR)=foot
 'If I sell it (the piece of meat) to you I am not going to have what [to massage my foot with].'
 {lonja/54-6}.

The fourth context in which the applied instrumental construction occurs obligatorily is in complex sentences of the following two types: 1) purposive and, 2) conjoined. Within these two types of complex structures, one of the

participants of the first clause is coreferential with an instrumental participant belonging to the following clause.

Purposive clauses following another clause express the use to which something is being put. This type of structure is introduced by the borrowed Spanish preposition para 'for, in order to.' In (123a-c), the applicative toj- transitivizes the intransitive verbs within the purposive clause. The verb stems without toj- in (123b-c) are intransitive noun incorporation compounds.

- (123) a. jeʔ ja:tukajü ʔinükxik takepe tuʔk kaxuʔn para tatojteniʔaʔn

jeʔ ja:+tuk+ʔaj ʔi= nükx-i =k
that another A3 (ABS)=go -COMD=AN

ta= kep -e tuk kaxun
C3 (ERG)=look_for-INCD one box

[para ta= toj- ten+ni:yʔ-an]
for C3 (ERG)=INSTR-stand_up -IRRD
'The other one went to look for a box in order to stand up on.' {rspf1/583}

- b. ka:da xama:na ʔimiʔn jaj ga:s para tatojyoxtunküxi jaʔ

ka:da xama:na ʔi= mi:nʔ-i jaʔ ga:s
each week A3 (ABS)=come -INCD DEF gas

[para ta= toj- yox+e-tun-küx-i jaʔ]
for C3 (ERG)=INSTR-work- do -PL3-INCD 3AN
'The gas comes each week for them (the owners of the tortilla factory) to work with.' {rp3/928}

- c. tawampe ʔü:s limuʔn para tantojtra:stepujpe
 tan= wa:nʔ-pe ʔü:tz limun
 A1(ERG)=want -INCI.T I lime
- [para tan= toj- tra:ste-puj -pe]
 for A1(ERG)=INSTR-dish- wash-INCI.T
 'I want lime to dish-wash with.' {rs8/230}

The following examples illustrate transitive verb roots within the purposive clause that have been ditransitivized by the applicative toj-.

- (124) a. tyakyüʔki tüpxi para tatojxotzaʔnak küpi
 ta= yak- yüʔk -i tüpx+i
 C3(ERG)=CAUS-be_ready-COMD rope
- [para ta= toj- xotz-aʔn =ak küpi]
 for C3(ERG)=INSTR-tie -IRR=AN firewood
 'He got the rope ready to tie the firewood with.'
- b. pükü:t tuʔk tüpxi para mixtojwotzaʔne:t yaʔaj
 kafeʔt kuyü
 pük -ü -:t tuk tüpx+i [para
 grab-IMPR-PL.SAP one rope for
- mix= toj- wotz-aʔn -e:t yaʔaj
 C2(ERG)=INSTR-pull-IRR-PL.SAP this
- kafet kuy]
 coffee tree
 'You guys, grab one rope to pull this coffee plant.' {olu28/733}
- c. tanʔu:kame:t tzoyü para taxtojna:pitzümaʔn yaʔaj
 tan= ʔu:k -am -e:t tzoy [para
 A1(ERG)=drink-IRRI-PL.SAP medicine for
- tax= toj- na:w -pitzüm -aʔn yaʔaj]
 C1(ERG)=INSTR-throw-DIR:out-IRR this
 'We are going to drink medicine so that I can throw this one up (strip of meat).' {lonja/89}

- d. koa ?iyakpitzümu je?koj para tatojtajana
 koa ?i= yak- pitzüm-u je? =koj
 hoe A3(ERG)=CAUS-exit -COMI that=just
- [para ta= toj- taj-an =na]
 for C3(ERG)=INSTR-dig-IRRD=still
 'That one took out the hoe to dig it (the ground)
 with.' {aand2/91}
- e. jemak tatu:ti kaxu?n para tatojpa:tana?
 je?+mü=ak ta= tu:t?-i kaxun
 there =AN C3(ERG)=put -COMD box
- [para ta= toj- pa:t-an =ja?]
 for C3(ERG)=INSTR-find-IRRD=3AN
 'He put a box there to use it to reach it (the
 piece of rag that was on the top of the tree).'
 {rspf1/598}

The other complex sentence that requires the use of the instrumental applicative is a conjoined structure. This type of structure conveys a sequence of two events. The first one introduces a participant that is used as an instrument in the second event. The coreferential participant is coded as core (125a-c) or oblique (125d) in the first clause, and as core in the second clause. The second clause requires the applicative toj- preceding the verb. Unlike the purposive instrumental construction, the conjoined complex construction does not contain a preposition or a connector intervening between the two clauses.

- (125) a. jaʔxü tuʔk ka:xaʔn tapüki tatojka:xexü jeʔk
yoʔojwa
jaʔ=xü tuk ka:x+an ta= pük -i
3AN=EV one comb C3(ERG)=grab-INCD

ta= toj- ka:x-e =xü jeʔ =k yoʔojwa
C3(ERG)=INSTR-comb-INCD=EV that=AN man
'She is grabbing a comb and combing that man with
it.' {rsch2/113}
- b. jaʔk majaw ʔipüki somwri:ya tatojmoyik ʔoyamej
jeʔk yoʔojwa
jaʔ=k majaw ʔi= pük -i somwri:ya
DEF=AN woman A3(ERG)=grab-INCD umbrella

ta= toj- mo:yʔ-i =k ʔoyamej jeʔ =k
C3(ERG)=INSTR-give -INCD=AN properly that=AN
yoʔojwa
man
'That woman is carrying an umbrella and is
hitting (giving hits) that man properly with it.'
{rschl/83}
- c. mi:s minpa:tu teʔej mi:s mintoʔu:kpe mintojkaype
mi:tz min= pa:t-u teʔej mi:tz min=
you A2(ERG)=find-COMI now you A2(ERG)=

toj- ʔu:k -pe min= toj- kay-pe
INSTR-drink-INCI.T A2(ERG)=INSTR-eat-INCI.T
'[My father buried the money there.] You found it
and now you are using it to get drunk, you are
using it to eat.' {café/105-7}
- d. jeʔ ʔu:raxüʔk tamoyi mü:t jeʔ pelo:ta tatojwopi
jeʔ ʔu:ra=xü=k ta= mo:yʔ-i mü:t jeʔ
that hour =EV=AN C3(ERG)=give -COMD with that

pelo:ta ta= toj- wop-i
ball C3(ERG)=INSTR-hit-COMD
'That's when he gave him (a hit) with that ball,
and he hit him with it.' {koya/195-6}

Conjoined complex sentences can be formed by more than one clause. Once the instrument has been introduced as a

pragmatically salient participant, all the verbs of the following conjoined clauses are prefixed by toj- if the events conveyed by such clauses include an instrument. The following example illustrates this.

- (126) a. jeʔxü teʔk ʔitojni:ja:xpe
 jeʔ =xü tek ʔi= toj- ni:+ja:x-pe
 that=EV truly A3(ERG)=INSTR-rub -INCI.T
 'With that one (strip) she rubs it (her foot).'
- b. ʔitojni:müʔspe jeʔ lonjanaʔk jeʔxüʔk ʔiküʔxta
 ʔi= toj- ni:+müʔtz-pe jeʔ lonja-nak
 A3(ERG)=INSTR-dunk -INCI.T that strip-DIM
- jeʔ =xü=k ʔi= küʔx+ta
 that=EV=AN A3(PSR)=foot
 'She touches her foot with that little strip.'
- c. ʔitojtzoyi:pe tej
 ʔi= toj- tzoy+ʔi:yʔ-pe tej
 A3(ERG)=INSTR-cure -INCI.T ADM
 'She cures it with it.' {lonja/59-61}

In sum, all of these contexts make it clear that the instrumental nominals that are being coded as core arguments via the AC are those that are pragmatically highly salient. In contrast, non-salient instruments are always marked by the instrumental preposition mü:t. Applied instruments are PO's of derived intransitive verbs and SO's of derived transitive verbs. Both types of objects can be clefted and relativized; but only the PO can be passivized,

and marked by the absolutive proclitic on the verb in inverse, reflexive and reciprocal constructions.

3.6. Additional Uses of the Instrumental Applicative

In most cases, the main function of the prefix toj- can be clearly established. The prefix is an applicative morpheme that brings into core argument status instrumental and locative participants that are coded as obliques when the verb is underived. However, there are a few cases in which the semantics of the verb with the form toj-V is not compositional, that is, the instrumental applicative and the verb root produce a meaning that is not predicted by the sum of the meanings of the individual elements. Two of these examples are toj+pük and toj+nax. In the first case, the verbal root pük means 'grab, take, put together,' as in (127a). Thus, the expected meaning of the derived form is 'grab/take/put together something using something,' but instead, the verb toj+pük means 'believe,' as in (127b).

- (127) a. minpükam minjüchi
 min= pük -am min= jütz+i
 A2 (ERG)=grab-IRRI A2 (PSR)=dough
 'You are going to put together your dough.'
 {mi2/202}

- b. mintojpükpe tantükawa:te?k
 min= toj+pük-pe tan= tükaw -a:t+tek
 A2(ERG)=believe-INCI.T A1(PSR)=father-PL_SAP
 'Do you believe in our father (God)?' {rsch1/215}
 (NOT: 'Do you take it with?')

The transitive verb nax means 'cross, pass,' as in (128a-b). The derived form toj+nax does not mean 'cross using something,' as would be expected, but 'suffer,' as in (129a-b).

- (128) a. ?inaxwa?kok rri:w
 ?i= nax -w -a? =koj =k rri:w
 A3(ERG)=cross-COMI-PERF=just=AN river
 'He had just crossed the river.' {ropa/138}
- b. ja?mej taxnaxi xiwitü?k
 ja?mej tax= nax -i xiwit-tük
 in_that_way C1(ERG)=pass-COMD year -PL
 'I passed through the years in that way.'
 {viaj3/215}
- (129) a. tatonaxa?n mü:t ?i?una?k
 ta= toj+nax-an mü:t ?i= ?unak
 C3(ERG)=suffer -IRRD with A3(PSR)=offspring
 'She is going to suffer with her son.' {rp3/97}
 (NOT: 'She is going to pass using something together with her son.')
- b. maktaxko xiwi?t taxtojnaxi
 maktaxko xiwit tax= toj+nax-i
 four year C1(ERG)=suffer -COMD
 'I suffer for four years.' {rp3/513}
 (NOT: 'I am going to pass using something four years.')

Examples in which the combination toj+V have lexicalized a non-compositional meaning are very rare. In fact, the only

instances within my corpus are the two verbs discussed above.

The prefix toj- occurs in three additional contexts where it does not register the "promotion" of an oblique instrument to core argument status. The non-canonical contexts in which toj- does not function as an instrumental applicative are: 1) before some adjectives, 2) before a group of transitive verbs of contact, i.e., verbs such as 'hit' and 'kick,' and 3) before the morphological causative yak-.

3.6.1. Adjectives

Three major subclasses of adjectives prefixed by toj- can be distinguished on the basis of the formal properties of the root. The first subclass consists of adjectival roots that must be prefixed by toj-. For instance, the forms we:to, tzutzu and wo:xi do not exist as independent roots. These roots are well-formed adjectives only if they are prefixed by toj-.

- (130) a. tojwe:to ?ikú?xta le:ncho
 Ø= toj+we:to ?i= kú?x+ta le:ncho
 B3 (ABS)=bow-legged A3 (ABS)=foot Lencho
 'Lencho is bow-legged.'

- b. tojtzutzu seme jamaj na?ka
 ø= toj+tzutzu seme jamaj na?ka
 B3(ABS)=narrow very that board
 'That board is very narrow.'
- c. tojwo:xi jamaj chi?wa
 ø= toj+wo:xi jamaj chi?wa
 B3(ABS)=spongy that squash
 'The squash is spongy.'

A second subclass of adjectives consists of roots that can appear with or without the prefix toj-. For instance, the forms pa?tpik 'deep,' tü?kx+ni:y?+ik 'cleared out, thinned out,' and wa?tz 'clean, empty' are well-formed adjectives with and without toj-. It is not completely clear what the semantic contribution of the prefix is, since some of the forms apparently maintain the same meaning in both their underived and derived form. Compare the following pairs:

- (131) a. pa?tpikchikna? nü:jü
pa?tpik-chik-na? nü:
 deep -DIM -ADJ well
 'The well is a little bit deep.'
- b. tojpa?tpikchikna? ya?+mej ?inükxi
tojpa?tpik-chik-na? ya?+mej ?i= nüxk-i
 deep -DIM -ADJ that_way A3(ABS)=go -INCD
 '(The grinding stone) was a little bit deep,
 that's the way (the buyers) got it.' {conv3/371}
- (132) a. tü?kxni?i?k kafe?t
tü?kx+ni:y?+ik kafet
 thinned_out coffee
 'The coffee is thinned out.'

- b. tojtü?kxni?i?k kuyjotü
toj+tü?kx+ni:y?+ik kuy+jot
 cleared_out field
 'The field is cleared out.'
- (133) a. wa?a?s tantükü ?i?iti
wa?tz tan= tük ?i= ?it -i
 clean A1(PSR)=house A3(ABS)=exist-INCD
 'My house is clean.' {rs2/90}
- b. tojwa?a?s ?i?itno jamaj kuwe:ta
toj+wa?tz ?i= ?it -nü -e jamaj kuwe:ta
 empty A3(ABS)=exist-already-INCD that bucket
 'That bucket is already empty.' {abeja/62}

The third subclass of adjectives consists of verb roots derived by the resultative (participle) suffix -Vk. The prefix toj- adds the sense of intensity or iteration. For instance, the participle kay-ek 'eaten' when derived by toj- means 'riddled,' as in (134).

- (134) porke san seme tojkayek tu?awtü?k ?i?itno
 porke san seme toj+kay+ek tu?aw-tük
 because very very riddled road -PL
- ?i= ?it -nü -e
 A3(ABS)=exist-already-INCD
 'Because the roads are very very riddled (with holes).' {rspf2/433}

The participle chip+ik 'scratched' prefixed with toj- means 'deeply scratched'.

- (135) ?ichipwa?kok ?i?a:ka seme tojchipikak
 ?i= chip -w -a? =koj =k ?i= ?a:ka
 A3 (ERG)=scratch-COMI-PERF=only=AN A3 (PSR)=cheek
- seme ø= toj+chip+ik =ak
 very B3 (ABS)=deeply_scratched=AN
 'He had already scratched his cheek, it was
 deeply scratched.' {C19/18/168}

Up to this point I have not found any clear motivations that explain the presence of the prefix toj- before adjectives. Some of the Sayultec adjectives exhibit the same type of derivation (Clark 1983, 1995). This is an indication that the use was not an Olutec independent development. More comparative work is needed in order to explain the semantic relations between the two uses of toj-, i.e., as an instrumental applicative before verbs, and as a derivational prefix before adjectives.

3.6.2. Contact Verbs

Olutec contact verbs such as tzuk 'cut with knife,' ka?tz 'cut into pieces with machete,' taj 'dig,' kup 'puncture,' wop 'hit,' kox 'hit with fist,' poj 'kick,' and wotz 'pull,' among others, exhibit a special behavior when they are simultaneously suffixed by the directional -?i:y? 'INWARDS' and prefixed by toj-. The argument structure of

contact verbs consists of an agent, a conflated theme, and a location (target) in core argument position. The prefix toj- does not function as an instrumental applicative with contact verbs since it does not bring oblique instruments into core argument status. The following two morphosyntactic facts confirm this. First, clauses that include verbs with the form toj-V-ʔi:yʔ are monotransitive and not ditransitive. That is, the derived verbal root takes the same two core arguments that are selected by its underived counterpart. The first argument is an agent who moves something so that it comes into contact with a goal/target/location (cf. Fillmore 1967, 1968; Dixon 1991; Levin 1993). In the following pairs, the examples in (a) are plain verb, whereas the examples in (b) are derived verbs.

(136) a. jeʔxük ʔitzuku ʔitewa
 jeʔ =xü=k ʔi= tzuk-u ʔi= tewa
 that=EV=AN A3(ERG)=cut -COMI A3(PSR)=buttock
 'It's said that he cut his buttocks.' {olu5/103}

b. jaj sewo:ya tatojtzukiyi
 jaj sewo:ya ta= toj- tzuk-ʔi:yʔ -i
 that onion C3(ERG)=INSTR-cut -INWARDS-COMD
 'She chopped the onion.' {rspf2/85}

(137) a. takoxiʔo:küpaʔ
 ta= kox -i -ʔo:k -ü -pa =jaʔ
 B1(ABS)=hit_{with} fist-NMZR-DESID-INV-INCI.I=3AN
 'They want to hit me.' {koya/20}

- b. jeʔk ʔitojkoxiyu
 jeʔ =k ʔi= toj- kox-ʔi:yʔ -u
 that=AN A3(ERG)=INSTR-hit-INWARDS-COMI
 'That one hit him.' {rschl/460}
- (138) a. taʔixpojwaʔkoj taʔaʔm
 tan= ʔüx- poj -w -aʔ =koj taʔaw -mü
 A1(ERG)=B.NECK-kick-COMI-PERF=just courtyard-LOC
 'I had already kicked it (the grinding stone)
 towards the courtyard.' {aandc/377}
- b. tojpojyüwaʔ
 ø= toj- poj -ʔi:yʔ -ü -w =jaʔ
 B3(ABS)=INSTR-kick-INWARDS-INV-COMI=3AN
 'He kicked him.' {rs8/47}
- (139) a. tanjaweʔtpe kayaʔn
 tan= jaweʔt-pe kay+an
 A1(ERG)=shake -INCI.T food
 'I am beating the food.'
- b. tatojaweʔtiʔ tüka:wku
 ta= toj- jaweʔt-ʔi:yʔ -i tük+ʔaw+kuy
 C3(ERG)=INSTR-shake -INWARDS-INCD door
 'He is pushing the door.' {piojo/94}

Instruments are marked by the preposition mü:t when they appear in clauses that include verbs with the formal shape toj-V-ʔi:yʔ, as in (140) and (141). This is the second fact that confirms that toj- in these contexts does not "promote" the instrument into core argumenthood.

- (140) mente jeʔk ʔiyöʔwe nüxkuk tatojtajiʔ na:xü mü:t
 wata:ka
 mente jeʔ =k ʔi= yoʔwe nüx-u =k
 meanwhile that=AN A3(PSR)=husband go -COMI=AN
- ta= toj- taj-ʔi:yʔ -i na:x mü:t wata:ka
 C3(ERG)=INSTR-dig-INWARDS-COMD earth with hoe
 'Meanwhile her husband went to dig the land with
 a hoe.' {rspf2/25}

- (141) jeʔ ʔu:ra ʔixiʔ xtojkupiʔ tanta:tzüʔk mü:t
 tanküʔjüpü
 jeʔ ʔu:ra ʔix+ʔi:yʔ-i tax= toj- kup
 that hour begin -COMD Cl(ERG)=INSTR-puncture

-ʔi:yʔ -i tan=ta:tzük mü:t tan= küp+jüp
 -INWARDS-INCD Al(PSR)=ear with Al(PSR)=finger
 'That's when I began puncturing my ear with my
 finger.' {rspf2/771}

In contrast, contact verbs without the directional suffix -ʔi:yʔ share the same morphosyntactic pattern as other transitive verbs prefixed by toj-. Under these conditions, the instrumental nominal is coded as a core argument, resulting in a ditransitive clause. In ditransitives, such as (142) to (146), the instrumental is the SO whereas the target/goal/location is the PO.

- (142) jeʔ kuchi:nu tantojtzukwaʔ papa:ya ʔitüw ni:wi
 jeʔ kuchi:nu tan= toj- tzuk-w -aʔ papa:ya
 that knife Al(ERG)=INSTR-cut-COMI-NMZR papaya

 ø= ʔit -ü -w ni:wi
 B3(ABS)=exist-INV-COMI chilli_pepper
 'The knife I cut the papaya with had chilli
 pepper.'
- (143) ʔü:s machi:ti tantojkaʔtzu
 ʔü:s machi:ti tan= toj- kaʔtz-u
 I machete Al(ERG)=INSTR-cut -COMI
 'I cut it with a machete.'

- (144) jaʔk ʔitu:taype tuʔk tüpxinaʔk mü:tak tatojwotze
 jaʔ=k ʔi= tu:tʔ-ay -pe tuk tüpx+i-nak
 he=AN A3(ERG)=put -APPL1-INCI.T one rope -DIM
 mü:t=ak ta= toj- wotz-e
 and =AN C3(ERG)=INSTR-pull-INCD
 'He is tying one little rope₁ (to the branch_j) and
 pulling it_j down with it₁.' {olu28/720}
- (145) tantojwopuk kawa:yu tuʔk tüpxi
 tan= toj- wop-u =k kawa:yu tuk tüpx+i
 A1(ERG)=INSTR-hit-COMI=AN horse one rope
 'I hit the horse with a rope.'
- (146) tantojkupe ʔi:tzümü kuchi:nu
 tan= toj- kup -pe ʔi:tzümü-tük
 A1(ERG)=INSTR-puncture-INCI.T pig -PL
kuchi:nu
 knife
 'I stab the pigs with a knife.'

Therefore, in order to account for the presence of the instrumental applicative in contexts such as (136b) to (139b), an explanation is required. There are at least two clues that can be used to solve this puzzle. First, in all the cases where the prefix toj- does not "advance" an instrument, the verb root is suffixed by the directional -ʔi:yʔ. This suffix describes the trajectory of an entity that passes through a boundary when it moves into a location. The nominal expressing the location is overtly marked as oblique with a locative postposition. The examples in (147) are intransitive. In (147a), the directional indicates that the cat (figure) moves through the frame of a window at the moment in which it is jumping.

In the passive clause in (147b), the directional indicates that the stick will pass below the surface of the soil when buried.

- (147) a. yokxi:pak wenta:najem
 ø= yokx-ʔi:yʔ -pa =k wenta:na-jem
 B3 (ABS)=jump-INWARDS-INCI.I=AN window -LOC
 '(The cat) jumps in through the window.'
 {aand/103}
- b. yam ʔiyaktajiʔaʔn jeʔ kuyü
 yaʔ -mü ʔi= yak- taj-ʔi:yʔ -aʔn jeʔ kuy
 this-LOC A3 (ABS)=PASS-dig-INWARDS-IRRD that tree
 'The stick is going to be buried here.' {cafe/17}

The verbs of the examples in (148) are transitive. They convey the motion of a figure (theme) by an agent. The directional indicates that the figure is moved towards a specific location explicitly marked as an oblique phrase.

- (148) a. tana:wiyi jeʔ kawakü kaʔkajotpi
 ta= na:w -ʔi:yʔ -i jeʔ kawak
 C3 (ERG)=throw-INWARDS-COMD that banana

 kaʔka -jot -pi
 basket-innards-LOC
 'He threw that banana inside the basket.'
 {rspfl/462}
- b. porke je:pak xtajiyi don jwan
 porke jeʔ -pi =ak tax= taj-ʔi:yʔ -i don
 because that-LOC=AN C1 (ERG)=dig-INWARDS-COMD Mr.

 jwan
 John
 'Because I buried Mr. John there.' {rp2/267}

- c. yamak tyakmuki? ?iwo:lsajotpi
ya?+mü=ak ta= yak+muk-?i:y? -i
here =AN C3(ERG)=gather -INWARDS-INCD
- ?i= wo:lsa-jot -pi
A3(PSR)=bag -innards-LOC
'He is gathering (the avocados) inside his bag.'
{rspfl/275}

These examples show that the directional suffix -?i:y? modifies the subcategorization frame of the verb. Clauses that include a verb suffixed with -?i:y? have an obligatory (though oblique) location as part of their argument structure. This is obvious in examples (147a-b) and (148a-c) where the nominal referring to the location is marked by a locative postposition. This leads us to the second clue that will be used to explain the presence of the instrumental applicative in examples such as (136b) to (139b).

All the verbs affixed by both toj- and -?i:y? are members of the set of contact verbs. Change of state verbs such as je?tz 'snap,' jo:y+ta:k? 'split, break,' kit+tuk 'break, twist,' kü:tz 'rip, tear, split,' papx 'snap,' tatz+wakx 'break, split' do not take the combination of affixes toj-V-?i:y?. Authors such as Fillmore (1967, 1968), Dixon (1989), Levin (1993) inter alia, have suggested that contact verbs, such as 'hit,' differ from change of state verbs, such as 'break,' with respect to the semantic role of the second core argument. 'Hit' verbs take an overt

location argument whereas 'break' verbs take an overt theme one. The fact that Olutec 'hit' verbs select for a locative argument can be clearly appreciated in paraphrastic constructions. For instance, a hitting event can be conveyed by a simple verb as wop 'hit,' (149a), or by ditransitive verbs that explicitly subcategorize for three arguments: the hitter (agent), the entity that is moved (theme), and the target of hitting (location), as in (149b-c). The theme wop-e 'a hit' is a nominalization of the verb wop.

- (149) a. ka:nu:nkakü tawopiy tantükaw
 ka:=nu:nka=k tan= wop-i -y
 NEG=never =AN A1(ABS)=hit-COMD-INVD.C

 tan= tükaw
 A1(PSR)=father
 'My father never hit me.' {rp2/21}
- b. mü: xmoʔaʔn wope mintewajem
 mü:t tax= mo:yʔ-aʔn wop-e
 and C1(LOCAL)=give -IRRD hit-NMZR

 min= tewa -jem
 A2(PSR)=buttock-LOC
 'I will smack you on your buttock.' (Lit. I will
 give you hits on your buttocks.) {olu4/219}
- c. miyaktükiyaʔxanüp wope
 mi= yak- tük+ʔi:yʔ-aʔx -an+ü+pa wop-e
 B2(ABS)=CAUS-enter -APPL1-INV+IRRI hit-NMZR
 'They are going to hit you.' (Lit. 'They are
 going to put hits on you.') {olu4/230}

The assumption is that the directional -ʔi:yʔ suffixed to contact verbs, such as wop 'hit,' explicitly indicates that the entity at the end of the causal chain is a location. Recall that nominals expressing the locative role of verbs with the shape V-ʔi:yʔ have to be marked as obliques. Consequently, since the goal/target/locative participant of contact verbs suffixed by -ʔi:yʔ is not a core argument of the root without the suffix, the claim is that the applicative toj- is used in these contexts to bring into core argument status such an argument and thus is no longer marked as an oblique.

- (150) mejo:rak ʔitojwopiyüno jama:k ʔuxpiʔn
 mejo:r=ak ʔi= toj- wop-ʔi:yʔ -nü -i
 better=AN A3 (ABS)=INSTR-hit-INWARDS-already-INCD

 jamaj=k ʔuxpin
 that =AN alligator
 'Even better, that alligator was already hitting
 him.' {pesca/205}

Additional evidence for this interpretation comes from the fact that toj- not only "advances" canonical instruments but also canonical locatives, as the pair in (151) illustrates.

- (151) a. tukak yoʔjwa petuk kuywimpi
 tuk=ak yoʔjwa ø= pet -u =k kuy -win-pi
 one=AN man B3 (ABS)=ascend-COMI=AN tree-top-LOC
 'A man went up to the top of that tree.'
 {rspf1/111}

- b. tantojpetu na?kxikoj ma:nkukuyü
 tan= toj- pet -u na?kxi=koj ma:nku-kuy
 A1(ERG)=INSTR-ascend-COMI when =just mango -tree
 'I climbed the mango trees in those days.'
 {viaj2/35}

In sum, contact verbs have two counterparts: the simple form (V) and the complex form (toj-V-?i:y?). In (152), the simple verb and complex verb are used under similar conditions and apparently without any semantic difference.

- (152) a. ?ixi?ixü?k jama:k yo?jwa taka?tzek kuyü
 ?ix+?i:y?-i =xü=k jamaj=k yo?jwa
 begin -COMD=EV=AN that =AN man

 ta= ka?tz-e =k kuy
 C3(ERG)=cut -INCD=AN tree
 'That man began to cut the tree.' {miel/34}
- b. jama:k yo?jwa ja?me:k tatojka?tzi? pa:jü
 jamaj=k yo?jwa ja?mej =k
 that =AN man in_that_way=AN

 ta= toj- ka?tz-?i:y? -i pa:
 C3(ERG)=INSTR-cut -INWARDS-INCD bush
 'That man cut the bushes in that way.' {rspf2/37}

More research needs to be done in order to determine the morphosyntactic or semantic conditions that trigger the use of the two alternates.

3.6.3. Causatives

Olutec exhibits two causative prefixes. The selection of one or the other depends on the number of core arguments of the verb to which the causative prefix attaches.

Intransitive verbs take the prefix yak-, (153b), whereas transitive verbs take the prefix ta:k-, (154b). The causative ta:k- plus a transitive verb produces a ditransitive verb.

- (153) a. naʔkxeʔk ʔitükaw ʔiʔo:ki
 naʔkxej=k ʔi=tükaw ʔi=ʔo:k-i
 when =AN A3(PSR)=father A3(ABS)=die-COMD
 'When my father died [...]' {rp3/198}

b. yak- Causative for Intransitive = Transitive

- naʔkxeʔk xyakʔo:ki jeʔk ʔowanaʔk
 naʔkxej=k tax= yak- ʔo:k-i jeʔ =k
 when =AN C1(ERG)=CAUS-die -COMD that=AN
 ʔowa-nak
 parrot-DIM
 'That is when I killed that little parrot.'
 {abeja/5}

- (154) a. yaʔaj ʔikaype pu:ro tzuʔchi puʔtz+ʔaj
 yaʔaj ʔi= kay-pe pu:ro tzuʔtz+i puʔtz+ʔaj
 this A3(ERG)=eat-INCI.T only meat rotten
 'This one (the buzzard) eats only rotten meat.'
 {zopil/229}

b. ta:k- Causative for Transitive = Ditransitive

tanta:kayu jaʔ chipintzü:ʔpi
 tan= ta:k-kay-u jaʔ chipin+tzü:pʔ+i
 A1(ERG)=CAUS-eat-COMI 3AN edible_green
 'I made her eat chipile (type of edible green).'
 {deaa/143}

The prefix ta:k- is a complex morpheme that originated from the combination of an instrumental applicative toj-, plus the causative yak-.

There are two problems that are going to be addressed here: First, the syntactic status of the two objects in ditransitive causatives, and second, the semantic motivation for using the combination of an instrumental applicative and a causative morpheme to create a new causative marker. It will be shown that the etymological source of the complex prefix ta:k- is semantically motivated since it captures two of the properties of causatives of transitive verbs. On the one hand, the prefix yak- introduces an external causer that induces an agentive causee to do an action. On the other hand, the instrumental applicative toj- makes it possible for the theme of the base verb to be included in the argument structure of the clause.

The causative yak- derives monotransitive verbs from agentive and nonagentive intransitive verbs. The subject of intransitive verbs becomes the object of the causative. When the causative is affixed to agentive ambitransitive verbs, the theme may not be expressed in the clause as a core argument. For instance, the theme of the agentive ambitransitive verb ʔu:k 'drink' is omitted in the causative clause in (155b).

(155) a. tanʔu:kuʔaʔa:t tzoj
 tan= ʔu:k -u -ʔaʔ -a:t tzoj
 A1 (ERG)=drink-COMI-PERF-PL.SAP medicine
 'We have drunk the medicine.' {lonja/103}

b. mü:tak xyakʔu:kaʔne:t
 mü:t=ak tax= yak- ʔu:k -aʔn -e:t
 and =AN C1 (ERG)=CAUS-drink-IRRD-PL.SAP
 'And we are going to make him drink.' {diab1/33}

The only way to maintain the theme as an overt participant within the clause is by incorporating it into the verb. In incorporating structures, the theme appears between the causative marker and the verb root.

(156) CAUSATIVE-NOUN-VERB
 a. tyaknü:ʔu:ki pa:kax
 ta= yak- nü:- ʔu:k -i pa:kax
 C3 (ERG)=CAUS-water-drink-INCD cow
 'He is giving water to the cows to drink.'
 {mil/308}

- b. mü:tak ?iposi:yopixük tyakafet?u:ki
 mü:t=ak ?i= posi:yo-pi =xü=k
 and =AN A3(PSR)=mug -LOC=EV=AN
- ta= yak- kafet- ?u:k -i
 C3(ERG)=CAUS-coffee-drink-INCD
 'And she makes it (the bird) drink coffee out of
 her mug.' {rsch2/87}

Examples such as (156a, b) are syntactically monotransitive. The only two core arguments are the causer (the person who instigates the action) and the causee (the person who drinks the liquid). An incorporated theme does not retain any of the syntactic properties assigned to core arguments. It cannot be modified, it cannot be cross-referenced by an absolutive proclitic or a third-person plural marker on the verb, and it cannot be relativized. In addition, the incorporated theme is always non-referential and low in topicality. Additional evidence that the incorporated theme is a syntactically inert argument comes from incorporating constructions in which the agentive ambitransitive verb root is not derived by the causative marker, as illustrated in (157). In these constructions the verb is intransitive, as shown by the fact that its subject is marked by the absolutive proclitic instead of the ergative which cross-references the agent of transitive clauses.

- (157) minkafetʔu:kaʔn tzu:p
 min= kafet- ʔu:k -aʔn tzu: -pi
 A2 (ABS)=coffee-drink-IRRD night-LOC
 'You are going to drink coffee at night.'
 {C11b/11/20}

Thus, causative constructions with agentive ambitransitive verbs such as (155b) and (156a, b) have their causer functioning as subject, their causee functioning as primary object, and the theme of the base verb as an inert (or absent) participant.

The verb ʔu:k 'drink,' and many other agentive ambitransitive verbs co-occurring with the causative ta:k-, form ditransitive verb stems, as in (158a-c). The argument structure of a verb derived by ta:k- (< toj+yak) includes a causer, a causee, and a theme of the base verbs.

- (158) a. minta:kʔu:kamaʔ minpakikpaʔ nü:jü
 min= ta:k-ʔu:k -am =jaʔ min= pakikpaʔ nü:
 A2 (ERG)=CAUS-drink-IRRI=3AN A2 (PSR)=cold water
 'You are going to make him drink your cold water.' {rss10/23}
- b. taxa:kʔe:pam jumü minmaʔjaʔn
 tax= ta:k-ʔe:p-am jumü min= ma:jʔ-aʔn
 C1 (LOCAL)=CAUS-see -IRRI where A2 (ABS)=sleep-IRRD
 'I will show you where are you going to sleep.'
 {olu28/124}
- c. ʔimajaw tata:kjuyi tzoyü
 ʔi= majaw ta= ta:k-juy-i tzoy
 A3 (PSR)=woman C3 (ERG)=CAUS-buy-INCD medicine
 'He sent his wife to buy a remedy.' {comel/121}

The causee (agent of the base verb) is the PO of the derived causative clause, i.e., it is the participant cross-referenced by the absolutive on the verb in the inverse construction, as in (159a, b).

- (159) a. yaʔak tanmü:taʔaw tata:kkayüw tzanaʔy
 yaʔaj=ak tan= mü:taʔaw
 this =AN A1(PSR)=neighbor
 ta= ta:k-kay-ü -w tzanay
 B1(ABS)=CAUS-eat-INV-COMI snake
 'My neighbor gave me snake to eat.' {rs4/226}
- b. mü:tak tantzüʔ tanta:kpüʔkxiy jaʔ paʔaknü:nü
 mü:t=ak tan= tzüʔ tan= ta:k-püʔkx
 and=AN A1(PSR)=mother A1(ABS)=CAUS-make_tortilla
 -i -y jaʔ paʔak-nü:nü
 -COMD-INV.D.C 3AN sweet-tortilla
 'And my mother made me make sweet tortillas.'
 {C9/61/554}

The causee is also the argument cross-referenced by the absolutive in the generic (unspecified) agent construction that is functionally a passive.

- (160) taja:ta:kmotowüw
 ta= ja:- ta:k-motow -ü -w
 B1(ABS)=GEN_A-CAUS-listen-INV-COMI
 'Somebody made me listen to it.'

The rationale that explains why the causative ta:k- grammaticalized from the instrumental applicative toj- and the causative yak- is as follows. On the one hand, the

function of the causative yak- is to introduce an external causer. The causative derivation only occurs with intransitive verbs (of both types, agentives and nonagentives.) The function of the instrumental applicative in this case fused with yak- is to introduce a participant that is selected by the semantics of the verb but that had to be left out due to the structural restrictions of the simple causative derivation (i.e., the causee becomes the PO). Out of the many applicatives that the language has, the instrumental allows that a prominent participant enter into the argument structure of the clause as a SO when the PO slot is already occupied. It is, then, very likely that toj- originally encoded the notion of instrument and that later on, it grammaticalized as a general applicative for coding pragmatically salient themes of agentive ambitransitive verbs. In a similar way, English may use the preposition 'with' to specify the theme of verbs such as feed (e.g. I fed it with rice).

Altogether, the fact that the instrumental fused with the causative yak- can be easily motivated. The form ta:k- is just an additional example of the many that have been reported in the literature of grammaticalization where two

or more morphemes that occur frequently together become one inseparable unit in the course of time.

4. Associative Applicative mü:-

Associatives are entities that are involved in a situation or perform an action in the company of the subject or of the object of the clause. For instance, in the English sentence John goes to the market with his child, the nominal phrase with his child is an associative. The same is true for the phrase with mashed potatoes in he ate his peas with mashed potatoes. Other terms used to refer to the nominal that express accompaniment are 'comitative' and 'sociative' (Blake 1994:156). In Olutec, the applicative prefix mü:- (ASSOC1) brings into core argument status associative participants that are not licensed by the semantics of the verb root. For instance, the intransitive verb nükx 'go' takes only one argument. The extra nominal expressing accompaniment is marked by the preposition mü:t 'with'¹⁴ when the verb is underived, as in (161a). In contrast, the derived verb mü:-nükx 'take, go together with' takes the associative nominal as a second core argument. In (161b), the phrase ?ipiyu tza?e 'his

grilled chicken' is an associative nominal acting as the primary object of the clause.

- (161) a. jeʔ ko:xo tükxi:tüʔs mü:tak xuʔnitük
 jeʔ ko:xo tan= nükx-i -:t -ütz mü:t=ak
 that day A1 (ABS)=go -COMD-PL.SAP-EXCL with=AN

xuʔni-tük

dog -PL

'That day we went with the dogs.' {olu26/73}

- b. ʔipiyu tzaʔe ʔimü:nükxpek ya:p
 ʔi= piyu tza:yʔ+e
 A3 (PSR)=chicken grilled

ʔi= mü:- nükx-pe =k yaʔ+pi

A3 (ERG)=ASSOC1-go -INCI.T=AN here

'He takes his grilled chicken here.' (Lit. 'He goes with his grilled chicken here.') {aand/277}

4.1. Associatives vs. Conjoined Nouns

Clauses with an associative nominal marked by mü:t, as in (161a), differ both semantically and formally from clauses that include a conjoined NP, as in (162). In (161a) the associative phrase mü:tak xuʔnitük 'with the dogs' is not a core argument of the clause. In contrast, the phrase mü:tak jeʔ jaytzüʔnak 'and the little old woman,' in (162), which is also preceded by mü:t, is part of a coordinate nominal phrase functioning as the subject of the clause.

- (162) jeʔk naʔwunaʔk mü:tak jeʔ jaytzüʔnaʔk nükxi
 taʔe:pküxi
 jeʔ =k naʔaw -ʔunak mü:t=ak jeʔ jaytzüʔ -nak
 that=AN old_man-DIM and =AN that old_lady-DIM
 nükx-i ta= ʔe:p-küx-i
 go -INCD C3(ERG)=see -PL3-INCD
 'The little old man and the little old woman were
 going to see him (their son).' {hijomez/26}

In coordinated structures, the first conjunct may be an overt NP, as in (162) and (163), or may not be expressed by an independent noun or pronoun, as in (164).

- (163) ʔü:sü mü:tak taʔajchi tajamati:tüʔs xunkü:kpi
 ʔü:tz mü:t=ak tan= ʔajchi
 I and =AN A1(PSR)=older_brother
 tan= jamat -i -:t -ütz xujun+kü:k-pi
 A1(ABS)=arrive-INCD-PL.SAP-EXCL Almagre -LOC
 'I and my older brother arrived in Almagre.'
 {olu28/489}
- (164) takaypa:tüʔs mü:t tanʔawoʔk
 ta= kay-pa -:t -ütz mü:t tan= ʔawok
 B1(ABS)=eat-INCI.I-PL.SAP-EXCL and A1(PSR)=child
 'I and my children eat.' {rp3/189}

When the two conjuncts are overt nominals, they can be part of a discontinuous nominal expression. In the following examples the two conjuncts are separated by the verb. The conjunction mü:t appears always preceding the second conjunct.

- (165) a. ja:jaʔk chu:chunaʔk ʔikepküxpe mü:tak ʔixuʔninaʔk
 jaʔ=ak chu:chu-nak ʔi= kep -küx-pe
 DEF=AN child -DIM A3(ERG)=look_for-PL3-INCI.T
 mü:t=ak ʔi= xuʔni-nak
 and =AN A3(PSR)=dog -DIM
 'The little kid and his dog are looking for it
 (the frog).' {idl/97}
- b. jeʔ ʔu:raxüʔk koya ʔijüyta:küxi mü:tak ʔuxpiʔn
 jeʔ ʔu:ra=xü=k koya ʔi= jüyta:kʔ-küx-i
 that hour =EV=AN rabbit A3(ABS)=play -PL3-COMD
 mü:t=ak ʔuxpin
 and =AN alligator
 'At that time the rabbit and the alligator were
 playing.' {koya/181}

The conjoined nominal phrase refers to more than one entity and this is overtly encoded on the verb when the complex nominal is a core argument. Recall that core arguments with third person plural reference may be cross-referenced on the verb by a plural suffix -küx. Similarly, the suffix -Vt 'PL_SAP' (plural for speech act participants) cross-references first and second person core arguments with plural reference.

- (166) a. 2nd Plural "S"
 jem minxokaʔne:t
 jeʔ+mü min= xok -aʔn -e:t
 there A2(ABS)=be_lying-IRR-PL.SAP
 'You (pl.) are going to lie down there.'
 {olu28/294}

b. 1st Plural "PO"

tantükawa:tekak tantzoyiyüpa:tü?s

tan= tükaw -a:tek =ak

A1 (PSR)=father-PL.SAP=AN

tan= tzoy+?i:y?-ü -pa -:t -ütz

A1 (ABS)=cure -INV-INCI.I-PL.SAP-EXCL

'Our Lord is curing us.' {rs2/43}c. 1st Plural "A"

tajuyame:t tu?k warri?l ?ampanü:jü

tan= juy-am -e:t tuk warril ?an+pa+nü:

A1 (ERG)=buy-IRRI-PL.SAP one barrel hard liquor

'We are going to buy a barrel of hard liquor.'

{diab1/32}

Since conjoined nominals in core argument position always have plural reference, they may be cross-referenced on the verb by a plural suffix. When the two conjuncts are third- person, the plural marker on the verb is -kūx, as illustrated by (162), (165a-b), and (167a-b).

- (167) a. ?imajawakü mü:tak je?ej tri:stek ?itijkūxnej
 ?i= majaw-ak mü:t=ak je? tri:ste=k
 A3 (PSR)=woman-AN and =AN that sad =AN

?i= tij -kūx-nü -i

A3 (ABS)=stay-PL3-already-COMD

'His wife and he stayed very sad there.'

{viaj2/207}

- b. ʔiʔitküxi chu:chunakakü mü:tak xuʔni mü:tak tuʔk
weka

ʔi= ʔit -küx-i chu:chu-nak-ak mü:t=ak
A3(ABS)=exist-PL3-INCD child -DIM-AN and =AN

xuʔni mü:t=ak tuk weka
dog and =AN one frog

'The little kid, the dog, and the frog are
there.' {id2/3}

When one of the conjuncts is first or second person, the plural marker on the verb is -Vt 'PL_SAP,' as illustrated by (163), (164) and (168).

- (168) a. jaʔmej xtojnaxi:tüʔs mü:tak yaʔaj jaymaʔjiw
jaʔ+mej tax= toj+nax-i -:t -ütz
in_that_way Cl(ERG)=suffer -COMD-PL.SAP-EXCL

mü:t=ak yaʔaj jaymaʔjiw
and=AN this deceased

'That is the way I and the deceased one (my
husband) suffered.' {rp3/586}

- b. tükxu:tüʔs yoxtumpaʔaj mü:tak jeʔkü
ta= nüx-u -:t -ütz yox+e-tun-pa+ʔ
B1(ABS)=go -COMI-PL.SAP-EXCL work -do -NF

mü:t=ak jeʔ =k
and =AN that=AN

'I and he went to work.' {olu4/3}

In sum, even though both associative and conjoined nominals are marked by mü:t, they can be clearly distinguished by their morphosyntactic behavior. First, associatives are oblique arguments, whereas conjoined nominals are part of a larger phrase that functions as a

clausal argument. And second, oblique associatives cannot be cross-referenced by the person or plural marking on the verb, whereas the complex conjoined core phrase can be explicitly marked as a plural argument on the verb.

4.2. Oblique Associatives vs. Core Associatives

The pair of examples in (161) shows that the associative nominal can be expressed either as a core or as a non-core argument in clauses with the same verbal root. This means that the applicative derivation is triggered by pragmatic factors, such as the degree of topicality of the associative nominal. Constructions with pragmatically highly salient associatives are likely to have a verb derived by the applicative mú:-.

There are seven morphosyntactic features that indicate that the applied associative is a clausal core argument. First, associative nominals are unflagged within AC's, whereas the same nominals are marked by the preposition mú:t 'with' when the verb is underived. The following pairs show this. The examples with bare verbs in (a) have the associative nominal marked as oblique, whereas the examples

with derived verbs in (b) have the associative nominal unmarked.

- (169) a. $\text{?ijamatik pro:we na?wunakü mü:t je? nü:nü}$
 $\text{?i= jamat -i =k pro:we na?aw -?unak mü:t}$
 A3(ABS)=arrive-COMD=AN poor old_man-DIM with
je? nü:n
 that tortilla
 'The little old man arrived there with those tortillas.' {desob/35}
- b. $\text{?imü:jamatuk tu?k li:troxü preside:nte}$
 $\text{?i= mü:- jamat -u =k tuk li:tro=xü}$
 A3(ERG)=ASSOC1-arrive-COMI=AN one liter =EV
preside:nte
 Presidente
 'He brought a liter of Presidente (hard-liquor brand).' {lm2/145}
- (170) a. $\text{yamak ?i?iti mü:t ?ikawa:yu}$
 $\text{ya?+mü=ak ?i= ?it -i mü:t ?i= kawa:yu}$
 here =AN A3(ABS)=exist-INCD with A3(PSR)=horse
 'Here he is with his horse.' {diab2/17}
- b. $\text{jemak tamo?itno jama:k}$
 $\text{je?+mü=ak ta= mü:- ?it -nü -i}$
 there =AN C3(ERG)=ASSOC1-exist-already-INCD
jamaj=k
 that =AN
 'He was already there with that one.' {zopil/88}
- (171) a. $\text{dejem tamini xujunkü:kpi mü:tak ta?ajchi}$
 $\text{de+jem tan= mi:n?-i xujun+kü:k-pi}$
 after_that A1(ABS)=come -COMD Almagre -LOC
mü:t=ak tan= ?ajchi
 with=AN A1(PSR)=older_brother
 'After that I came to Almagre with my older brother.' {olu28/486}

- b. jaʔmej taxmü:mini tanrra:ncho nikü mo:kü
 jaʔmej tax= mü:- mi:nʔ-i
 in_that_way C1(ERG)=ASSOC1-come -COMD
- tan= rra:ncho nikü mo:k
 A1(PSR)=ranch half_dried corn
 'That is how I brought the half dried corn to my
 ranch.' {lm3/381}
- (172) a. porke jeʔk sye:mpre ʔampiwuk mü:t ʔü:s
 porke jeʔ=k sye:mpre ø= ʔampiw-u =k
 because he =AN always B3(ABS)=chat -COMI=AN
- mü:t ʔü:tz
 with I
 'Because he always chatted with me.' {pesca/6}
- b. ja:tukak majaw tamü:ʔampi:peʔ
 ja:+tuk=ak majaw tan= mü:- ʔampiw-pe -ʔ
 another=AN woman A1(ERG)=ASSOC1-chat -INCI.T-NMZR
 'I chat with the other woman.' {rspf2/54}
- (173) a. ʔiju:ninyo mü:t jama:k majaw
 ʔi= ju:n+ni:yʔ-nü -e mü:t jamaj=k
 A3(ABS)=sit -already-INCD with that =AN
- majaw
 woman
 'He was already sitting there with that woman.'
 {zopil/103}
- b. yaʔk yoʔjwa ʔimü:ju:ni:kotpek tuʔk majaw
 yaʔ =ak yoʔjwa ʔi= mü:- ju:n+ni:yʔ-kot
 this=AN man A3(ERG)=ASSOC1-sit -VCLF3D
- pe =k tuk majaw
 -INCI.T=AN one woman
 'This man is sitting together with one woman.'
 {rsch2/63}

(174) a. piyü?kpak mü:t ?i?una?k ?ikü?tükjem
 ø= piyü?k-pa =k mü:t ?i= ?unak
 B3 (ABS)=run -INCI.I=AN with A3 (PSR)=offspring

?i= kü? -tük-jem
 A3 (PSR)=hand-PL -LOC
 'He is running with his son in his arms.'
 {rschl/250}

b. ?ixi?k tamü:piyü?kta?ki ?imajaw
 ?ix+?i:y?-i =k ta= mü:- piyü?k-ta:k?
 begin -COMD=AN C3 (ERG)=ASSOC1-run -suddenly

-i ?i majaw
 -INCD A3 (PSR)=woman
 'All of a sudden he began chasing his wife.'
 {rspf2/98}

Second, applied associatives with plural reference can be cross-referenced by the third person plural suffix -kūx on the verb. This property is shared only by core arguments.

(175) ya?k tamü:nükxkūxpe
 ya? =ak tan= mü:- nükx-kūx-pe
 this=AN A1 (ERG)=ASSOC1-go -PL3-INCI.T
 'I take these ones.' {id3/135}

(176) pero mimü:minkūxuk ya?aj
 pero min= mü:- mi:n?-kūx-u =k ya?aj
 but A2 (ERG)=ASSOC1-come -PL3-COMI=AN this
 'But you brought these ones.' {koya/217}

In contrast, oblique associatives with plural reference are not cross-referenced by the suffix -kūx. If the verb root of the following examples were followed by -kūx, the outcome would be an ill-formed construction.

- (177) ʔa:pu:t tükxi mü:tak mesko xujta:tunaʔawtük
 ʔaw+pu:t tan= nüx-i mü:t=ak metzko
 middle A1(ABS)=go -INCD with=AN two

xujta:tu-naʔaw-tük
 soldier -AUGM -PL
 'I was going in the middle with two big
 soldiers.' {id3/538}
- (178) jem tawaʔktiʔmpoʔk mü:t jeʔtüʔk
 jeʔ+mü tan= waʔk-ti:yʔ-i =ʔampok mü:t
 there A1(ABS)=walk-ITER -INCD=also with

jeʔ -tük
 that-PL
 'I also walk with them there.' {vg/826}
- (179) tyoxtunu mü:tak chu:chuwoʔk
 ta= yox+e+tun-u mü:t=ak chu:chu-wok
 B1(ABS)=work -COMI with=AN child -DIM
 'I worked with the little children.' {deaa/76}

Third, applied associatives referring to third-person animates can be marked on the verb by the enclitic =(a)k. Only third-person animate core arguments have this property. In examples (180a-e), the enclitic =ak cross-references the associative nominal, which is the only third-person animate within the clause.

(180) =ak Follows the Verb

- a. mimü:tükiʔa:mak yaʔaj tanʔapu
 min= mü:- tük+ʔi:yʔ-am =ak yaʔaj
 A2 (ERG)=ASSOC1-enter -IRRI=AN this
 tan= ʔapu
 A1 (PSR)=grandfather
 'You are going inside with my grandfather.'
 {burdel/69}
- b. porke tamü:kayamak kumpa:ne
 porke tan= mü:- kay-am =ak kumpa:ne
 because A1 (ERG)=ASSOC1-eat-IRRI=AN friend
 'Because I am going to eat with my friend.'
 {rs9/92}
- c. tamü:nükxame:tak yaʔaj ʔapu witpaʔ
 tan= mü:- nükx-am -e:t =ak
 A1 (ERG)=ASSOC1-go -IRRI-PL.SAP=AN
 yaʔaj ʔapu wit -pa+ʔ
 this grandfather walk-NF
 'We are going to take this grandfather out for a
 walk.' {burdel/11}
- d. tamü:kapxame:tak yaʔaj majaw
 tan= mü:- kapx-am -e:t =ak yaʔaj majaw
 A1 (ERG)=ASSOC1-talk-IRRI-PL.SAP=AN this woman
 'We are going to talk with this woman.'
 {burdel/65}
- e. ʔal mixmü:miʔnanak jeʔej
 ʔal mix= mü:- mi:nʔ-an =ak jeʔ
 when C2 (ERG)=ASSOC1-come -IRRD=AN that
 'As soon as you bring that (animal)[...]' {koya/30}

In contrast, animate associatives with oblique status do not share this feature. The animate enclitic either does not show up within the clause, as in (181a-c), or it follows the preposition mü:t, as in (182).

(181) =(a)k is Absent

- a. minkaya?n mü:t min?awo?k
 min= kay-a?n mü:t min= ?awok
 A2 (ABS)=eat-IRRD with A2 (PSR)=offspring
 'You will eat with your son.' {vg2/366}
- b. jem tawa?kti?mpo?k mü:t je?tü?k
 je?+mü tan= wa?k-ti:y?-i =?ampok mü:t je?tük
 there A1 (ABS)=walk-ITER -INCD=also with they
 'I also walk there with them.' {vg/826}
- c. ?ü:s tasufri:rtunu na?kxikoj mü:t tanjayma?
 yo?jwa
 ?ü:tz ta= sufri:r-tun-u na?kxi=koj mü:t
 I B1 (ABS)=suffer -DO -COMI when =just with
tan= jayma? yo?jwa
 A1 (PSR)=deceased man
 'I suffered in those days with my late husband.'
 {id3/753}

(182) =ak Follows the Preposition mü:t

- a. je? ko:xo tükxi:tü?s mü:tak xu?nitük
 je? ko:xo tan= nüx-i -:t -ütz mü:t=ak
 that day A1 (ABS)=go -COMD-PL.SAP-EXCL with=AN
 xu?ni-tük
 dog -PL
 'That day we went with the dogs.' {olu26/73}
- b. tükxpa kape?nüp mü:tak ya?aj ta?awo?k
 ta= nüx-pa kape?nü:-pi mü:t=ak ya?aj
 B1 (ABS)=go -INCI.I Acayucan-LOC with=AN this
 tan= ?awok
 A1 (PSR)=offspring
 'I am going to Acayucan with my son.' {id3/139}
- c. ja?mej tantojnaxu mü:tak je?ja?
 ja?mej tan= toj+nax-u mü:t=ak je? =ja?
 in that way A1 (ERG)=suffer -COMI with=AN that=he
 'I suffered in that way with that one.' {rp3/525}

- d. ʔü:s ja:koj yam taʔitpa tantükmü mü:tak taʔunak
yoʔjwaʔaj
ʔü:tz jaʔkoj yaʔ+mü ta= ʔit -pa tan=
I only here B1 (ABS)=exist-INCI.I A1 (PSR)=

tük -mü mü:t=ak tan= ʔunak yoʔjwa+ʔaj
house-LOC with=AN A1 (PSR)=offspring male
'I am just here in my house with my male son.'
{aand/475}
- e. jumü tantükju:niʔ mü:tak tanmajaw
jumü tan= tük+ju:n+ni:yʔ-i mü:t=ak
where A1 (ABS)=live -INCD with=AN

tan= majaw
A1 (PSR)= woman
'[...] where I am going to live with my wife.'
{deaa/241}

Fourth, applied associatives relativize in the same way as do core arguments, i.e., with nominalized relative clauses whose head is not recoverable by a pronoun within the RC. Examples (183a-c) are headless relative clauses modifying associatives. The applied associative modified by the relative clause appears underlined. The relative clause appears between brackets.

- (183) a. jeʔ ʔu:ra jeʔ ja:tukaj ʔimü:witkotpeʔej
jeʔ ʔu:ra jeʔ ja:+tuk+ʔaj [ʔi=
that hour that another A3 (ERG)=

mü:- wit -kot -pe -ʔeʔ]
ASSOC1-walk-VCLF3D-INCI.T-NMZR
'At that time, the other one with whom he was
walking [...]' {rspf1/605}

- b. jeʔk koʔke tamü:minuʔaj jeʔk minta:kaype
 jeʔ =k koʔke [tan= mü:- mi:nʔ-u -ʔaʔ]
 that=AN fish A1(ERG)=ASSOC1-come -COMI-NMZR

jeʔ=k min= ta:k-kay-pe
 he =AN A2(ERG)=CAUS-eat-INCI.T
 'You are feeding him with the fish that I
 brought.' {pesca/223}

- c. jeʔk tamü:yoxtumpeʔej pitzümu jaʔ
 jeʔ =k [tan= mü:- yox++tun-pe -ʔeʔ]
 that=AN A1(ERG)=ASSOC1-work -INCI.T-NMZR

pitzümu jaʔ
 ø= pitzüm-u jaʔ
 B3(ABS)=exit -COMI 3AN
 'The one I work with left.' {apuesta/134}

Fifth, similarly to the single object argument of canonical transitive verbs, the applied associative is indexed by the absolutive proclitic on the verb in the inverse, as in (184a-e).

- (184) a. jeʔk dye:go tamü:kapxüwna jaʔ
 jeʔ =k dye:go ta= mü:- kapx-ü -w =na
 that=AN Diego B1(ABS)=ASSOC1-talk-INV-COMI=still

jaʔ
 3AN
 'Diego still talked to me.' {mil/351}

- b. tamü:nükxiyak doktor ʔitükü
 tan= mü:- nükx-i -y =ak doktor
 A1(ABS)=ASSOC1-go -COMD-INVD.C=AN doctor

ʔi= tük
 A3(PSR)=house
 'He took me to the doctor's home.' {rp3/273}

- c. jeʔk mimü:ʔitüpü ke miʔawoʔk
 jeʔ =k mi= mü:- ʔit -ü -pa
 that=AN B2 (ABS)=ASSOC1-exist-INV-INCI.I

 ke min= ʔawok
 than A2 (PSR)=offspring
 'He is more with you than your sons.' {lm4/606}
- d. ʔimü:nükxiyaʔ
ʔi= mü:- nükx-i -y =jaʔ
 A3 (ABS)=ASSOC1-go -COMD-INV.D.C=3AN
 '(The death) took her away.' {aandc/148}
- e. jeʔk mü:piyüʔküp wü:niʔk xuʔninaʔk
 jeʔ =k ø= mü:- piyüʔk-ü -pa wü:nik
 that=AN B3 (ABS)=ASSOC1-run -INV-INCI.I wasp

 xuʔni-nak
 dog -DIM
 'The wasp is chasing the little dog.' {id1/221}

Sixth, the subject of the derived stem binds with the applied associative in reflexive and reciprocal constructions. This shows that the associative is the primary object of the clause. The verb in both constructions follows the inverse pattern.

- (185) a. tanimü:nükxünüpampoʔk
 ta= ni- mü:- nükx-nü -ü -pa =ʔampok
 B1 (ABS)=RFLX-ASSOC1-go-already-INV-INCI.I=also
 'I am also already departing.' (Lit. 'I am also already taking myself.') {id3/121}
- b. tanimü:kapxüp
 ta= ni- mü:- kapx-ü -pa
 B1 (ABS)=RFLX-ASSOC1-talk-INV-INCI.I
 'I am talking to myself.'

- c. despwesü nimü:kapxkükünüwak ?oyame:k
 despwes ø= ni- mü:- kapx-kük-ü -nü
 after B3(ABS)=RECP-ASSOC1-talk-PL3-INV-already
 -w =ak ?oyamej =k
 -COMI=AN properly=AN
 'After that, they talked to each other properly.'
 {rschl/519}
- d. nimechi ?inimü:kapxkükij
 ni+metzi ?i= ni- mü:- kapx-kük-i -j
 pair A3(ABS)=RECP-ASSOC1-talk-PL3-INCD-INVD.I
 'They were talking to each other.' {rs5/9}
- e. jemak ?inimü: ?itkükij
 je?+mü=ak ?i= ni- mü:- ?it -kük-i
 there =AN A3(ABS)=RECP-ASSOC1-exist-PL3-INCD
 -j
 -INVD.I
 'They are together over there.' {aand/131}
- f. mesko ja:kok ?inimü:witkükij
 metzko ja?+koj=k ?i= ni- mü:- wit -kük
 two only =AN A3(ABS)=RECP-ASSOC1-walk-PL3
 -i -j
 -INCD-INVD.I
 'Only these two were walking.' {id2/43}

And seventh, the passive of associative constructions takes the applied argument as its subject. The subject of passives is marked on the verb with the absolutive proclitic. The absolutive in (186a-e) refers to the applied associative.

- (186) a. kyen sa:we ta yakmü:nükxnüwa? ja?
 kyen sa:we ta
 who knows COND
- \emptyset = yak- mü:- nükx-nü -w -a? ja?
 B3(ABS)=PASS-ASSOC1-go -already-COMI-PERF 3AN
 'Who knows if he has already been taken.'
 {aandb/239}
- b. yakmü:piyü?kpa xu?nina?k
 \emptyset = yak- mü:- piyü?k-pa xu?ni-nak
 B3(ABS)=PASS-ASSOC1-run -INCI.I dog -DIM
 'The little dog is being chased.' {idl/222}
- c. ya:pa:ke? ?iyakmü:mini je?k mawro
 ya?+pi=ak=je? ?i= yak- mü:- mi:n?-i
 here =AN=CLEFT A3(ABS)=PASS-ASSOC1-come -COMD
- je? =k mawro
 that=AN Mauro
 'It is here that Mauro was brought.' {olul/48}
- d. ?ixinyo tra:ste ?iyakmü:ka?pownokoj
 ?ix+?i:y?-nü -e tras:te ?i=
 begin -already-INCD dishes A3(ABS)=
- yak- mü:- ka? -pow -nü -e =koj
 PASS-ASSOC1-descend-again-already-INCD=just
 'The dishes were already brought down again.'
 {zopil/108}
- e. tayakmü:nükxpa kuypi
 ta= yak- mü:- nükx-pa kuy -pi
 B1(ABS)=PASS-ASSOC1-go -INCI.I stick-LOC
 'I am being taken to jail.'
- f. miyakmü:minu mu:kü?p
 mi= yak- mü:- mi:n?-u
 B2(ABS)=PASS-ASSOC1-come -COMI
- mu:k? -ü -pa
 get_drunk-INV-INCI.I
 'You were brought here drunk.'

When the subject of the passive has plural reference, the verb may be additionally suffixed by -kùx, which marks plurality for third-person core arguments.

- (187) yakmü:nükxkùxu ja? nüpüne?
 ø= yak- mü:- nükx-kùx-u ja? nü+pün=je?
 B3 (ABS)=PASS-ASSOC1-go -PL3-COMI 3AN DUB =that
 'They were taken, who knows where.' {id3/640}

In sum, these seven morphosyntactic properties indicate that applied verbal roots form transitive verbs and that the associative argument of AC's is the second core argument of the clause (i.e., the PO).

4.3. Mü:- with Intransitive vs. Transitive Verb Roots

The applicative mü:- may be prefixed to both intransitive and transitive verb roots. In both cases, the verb stems that result are monotransitive. This is one of the main formal differences between the instrumental and the associative derivations. Recall that the instrumental applicative toj- prefixed to intransitive roots produces transitive verbs, while the same applicative prefixed to transitive roots produces ditransitive verbs (cf. § 3). In

ditransitive instrumental constructions, the theme acts as the PO and the added instrument acts as the SO.

Similarly to the instrumental applicative, the associative applicative mü:- prefixed to intransitive roots produces monotransitive stems. This is clearly shown by the marking of aspect and person. Compare the following pairs. The underived verb takes the incomplete for intransitives -pa, whereas the derived verb takes the incomplete for transitives -pe. The "S" of the underived root is marked with the absolutive proclitic, whereas the "A" of the derived verb, which corresponds to the same semantic role, is marked with the ergative proclitic.

(188) a. Intransitive

tukak yoʔjwa mimpak jeʔ ʔu:ra mü:t ʔimachi:ti
 mü:t ʔija:chanaʔk
 tuk=ak yoʔjwa ∅= mi:nʔ-pa =k jeʔ ʔu:ra
 one=AN man B3 (ABS)=come -INCI.I=AN that hour

mü:t ʔi= machi:ti mü:t ʔi= ja:cha-nak
 with A3 (PSR)=machete and A3 (ABS)=ax -DIM
 'At that hour a man comes with his machete and
 his little ax.' {rspf2/13}

b. Derived Transitive

ʔimü:mimpek ʔikayaʔn
ʔi= mü:- mi:nʔ-pe =k ʔi= kay+an
 A3 (ERG)=ASSOC1-come -INCI.T=AN A3 (PSR)=food
 'He is bringing his food.' {aand/273}

(189) a. Intransitive

yajkok ?itpa mü:t ?ita:tatü?k
 ya? =koj =k ø= ?it -pa mü:t
 this=just=AN B3(ABS)=exist-INCI.I with

?i= ta:ta -tük
 A3(PSR)=grandson-PL
 'This one is with his grandsons.' {aand/34}

b. Derived Transitive

je?k ?imü: ?itpe ?ixu?ninakü
 je?=k ?i= mü:- ?it -pe ?i= xu?ni-nak
 he=AN A3(ERG)=ASSOC1-exist-INCI.T A3(PSR)=dog-DIM
 'He is with his little dog.' {idl/39}

(190) a. Intransitive

?oyamento ta nüxpak mü:t tapünü
 ?oyamento ta ø= nüx-pa =k mü:t ta+pün
 now COND B3(ABS)=go -INCI.I=AN with someone
 'Now, if he goes with someone [...]' {aand/434}

b. Derived Transitive

?imü:nüxnpak yowa?aj
?i= mü:- nüx-nü -pe =ak yowa+?aj
 A3(ERG)=ASSOC1-go -already-INCI.T=AN new
 'He is already taking the new one.' {idl/328}

(191) a. Intransitive

ma:pak chu:chunakü mü:tak ?ixu?nina?k
ø= ma:j?-pa =k chu:chu-nak
 B3(ABS)=sleep-INCI.I=AN child -DIM

mü:t=ak ?i= xu?ni-nak
 with=AN A3(PSR)=dog -DIM
 'The little child is sleeping with his little
 dog.' {idl/64}

b. Derived Transitive

ʔita:tak ʔimü:ma:pe
 ʔi= ta:ta =k ʔi= mü:- ma:jʔ-pe
 A3(PSR)=grandson=AN A3(ERG)=ASSOC1-sleep-INCI.T
 'She sleeps with her grandsons.' {lm3/148}

(192) a. Intransitive

yamü jeʔk chu:chunakok ju:ni:pak mü:tak ʔixuʔni
 nü:kü:kpi

yaʔ+mü jeʔ =k chu:chu-nak=koj =k
 here that=AN child -DIM=just=AN

∅= ju:n+ni:yʔ-pa =k mü:t=ak
 B3(ABS)=sit -INCI.I=AN with=AN

ʔi= xuʔni nü: -kü:k -pi
 A3(PSR)=dog water-hollow-LOC
 'Here, the little kid is sitting with his dog in
 the puddle.' {rschl/679}

b. Derived Transitive

yaʔk yoʔjwa ʔimü:ju:ni:kotpek tuʔk majaw
 yaʔ =ak yoʔjwa ʔi=
 this=AN man A3(ERG)=

mü:- ju:n+ni:yʔ-kot -pe =k tuk majaw
 ASSOC1-sit -VCLF3D-INCI.T=AN one woman
 'This man is sitting together with one woman.'
 {rsch2/63}

However, unlike the instrumental applicative that derives ditransitive verbs out of monotransitive roots, the associative applicative mü:- prefixed to transitive roots produces monotransitive verbal stems. That is, the derived verb always subcategorizes for only two core arguments: an agent and an associative. The associative argument is the

only object of the clause. The theme can be either omitted or incorporated. In both cases this participant is syntactically inert. The example (193a) is a monotransitive clause with two core arguments: an agent ('the cat') and a theme ('the gristle'). The associative participant ('the dog') appears as an oblique nominal. The clause in (193b), which includes the same verbal root prefixed with the applicative mü:-, is also monotransitive. The two core arguments involved are: the agent ('I') and the applied associative ('with my friend'). The semantic theme is omitted from the clause.

(193) a. ʔe:mexüʔk ʔikaype mixtuʔn mü:t xuʔni
 ʔe:m+e =xü=k ʔi= kay-pe mixtun mü:t xuʔni
 gristle=EV=AN A3(ERG)=eat-INCI.T cat with dog
 'The cat is eating gristle with the dog.'
 {rspf2/490}

b. Theme is Omitted

porke tamü:kayamak kumpa:ne
 porke tan= mü:- kay-am =ak kumpa:ne
 because A1(ERG)=ASSOC1-eat-IRRI=AN friend
 'Because I am going to eat with my friend.'
 {rs9/92}

The underived verb ʔetz 'dance,' when occurring in transitive constructions, takes an agent and a theme as core arguments, as shown in (194a). The same verb, when derived by the applicative mü:-, takes an agent and an

associative. The theme in the AC is omitted, as (194b) illustrates.

- (194) a. ku:mwya taʔesküxi
 ku:mwya ta= ʔetz -küx-i
 cumbia C3(ERG)=dance-PL3-INCD
 'They were dancing cumbia.' {vg/652}
- b. Theme is Omitted
- jeʔxük majaw tamü:ʔetze
 jeʔ =xü=k majaw ta= mü:- ʔetz -e
 that=EV=AN woman C3(ERG)=ASSOC1-dance-INCD
 'He (the devil) was dancing with that woman.'
 {diab2/93}

If the theme of the transitive verb is not omitted, it may appear incorporated in the derived stem between the applicative affix and the verb root. For instance, the underived transitive verb tun 'do, make' in (195a) has an agent (min= 'you') and a theme (yox+e 'work') as core arguments. In (195b, c) the nominal yox+e, referring to the theme, appears incorporated. The agent and the associative are the only two core arguments of the applied construction.

- (195) a. mintununa jeʔ yoxe
 min= tun-u =na jeʔ yox+e
 A2(ERG)=do -COMI=still that work
 'Did you still do that job?' {burdel/115}

Theme is Incorporated

- b. jeʔkeʔ mimü:yoxtunu
 jeʔ =k =jeʔ min= mü:- yox+e-tun-u
 that=AN=CLEFT A2(ERG)=ASSOC1-work- do -COMI
 'And it is him you worked with.' {lm4/563}
- c. tajayko tamü:yoxtunu
 tan= jayko tan= mü:- yox+e-tun-u
 A1(PSR)=older_sister A1(ERG)=ASSOC1-work-do -COMI
 'I worked with my older sister.' {rs7/40}

The following are additional examples of associative AC's with incorporated themes:

- (196) a. mü:t mesko tamü:ʔawoktuni
 mü:t metzko ta= mü:- ʔawok- tun -i
 and two C3(ERG)=ASSOC1-offspring-make-COMD
 'And he made two children with her.' {lm4/53}
- b. pün pü:keʔ ʔimü:tzukintunu
 pün pü:k=jeʔ ʔi= mü:- tzukin-tun-u
 who DUB =CLEFT A3(ERG)=ASSOC1-fight- do -COMI
 'Who knows who did he fight with?' {rp3/291}

In sum, the associative applicative prefixed to both intransitive and transitive verbal roots produces monotransitive verbs. In both cases the applied associative acquires the properties of the PO of the clause. When the associative acts as the PO of the derived verb, the semantic theme is either omitted or incorporated. The Relational Grammar analysis offered for AC's (Aissen 1983, 1987, Blake 1990, Chung 1976) accurately accounts for the

grammatical status of participants involved in the Olutec applicative associative construction with transitive verbs. The basic idea is that the oblique associative "advances" from an oblique status to a 2 (object) status and that the applicative prefix registers such an advancement. The advanced argument behaves as 2 with respect to person and number marking, and operations such as reciprocalization and passivization. The advancement of the associative puts the theme in chômage. That means that the theme loses all the object properties and becomes a syntactically inert argument or "chômeur". (In §5 below, I will describe a double object construction in which both the theme and the associative are maintained as core arguments.)

4.4. Transitive Verbs Prefixed by mü:-ni-

The applicative mü:- does not register the promotion of an associative nominal to core argument status when it appears before the reciprocal prefix ni- in combination with a small set of transitive verbs. Instead, the derived verb with the form mü:-ni-Transitive V takes the same number of core arguments that are selected by the underived transitive root. In the following pairs of examples, the

verbal roots pa:t 'find, meet,' wa:n? 'want, love' and yak+tij 'abandon, leave someone behind' appear in the underived and derived forms.

- (197) a. je?k mawro ?ila:rio tapa:tik tu?k majaw yamü
 pu?mayem
 je? =k mawro ?ila:rio ta= pa:t-i =k tuk
 that=AN Mauro Ilario C3(ERG)=find-COMD=AN one
 majaw ya?+mü pu?may -jem
 woman here Jaltipan-LOC
 'Mauro Ilario found a woman here, in Jaltipan.'
 {olul/251}
- b. je:pxük tamü:nipa:tij tamü?ku sawi:na ?itzü?
 je?+pi=xü=k ta= mü:- ni- pa:t-i -j
 there =EV=AN C3(ERG)=ASSOC1-RECP-find-INCD-INVD.I
 tan= mü?ku sawi:na ?i= tzü?
 A1(PSR)=sister Sabina A3(PSR)=mother
 'She met the mother of my sister Sabina there.'
 {rp3/72}
- (198) a. ?ika:wanuxü?k ?iko:tükaw
 ?i= ka:=wa:n?-u =xü=k ?i= ko:+tükaw
 A3(ERG)=NEG=want -COMI=EV=AN A3(PSR)=step-father
 'She didn't like her step-father.' {aandc/8}
- b. tamü:niwa?ne:k je? yo?jwa
 ta= mü:- ni- wa:n?-nü -e -j =k
 C3(ERG)=ASSOC1-RECP-want -already-INCD-INVD.I=AN
 je? yo?jwa
 that man
 'He is already on good terms with that man.'
 {rschl/499}

- (199) a. $\text{?iyaktijuk tamü?ku je?k jwan moli:na}$
 $\text{?i= yak+tij-u =k tan= mü?ku je? =k}$
 A3(ERG)=abandon-COMI=AN A1(PSR)=brother that=AN

 jwan moli:na
 Juan Molina
 'Juan Molina abandoned my sister.' {rp3/639}
- b. ?imü:niyaktijüwa?
 $\text{?i= mü:- ni- yak+tij-ü -w =ja?}$
 A3(ERG)=ASSOC1-RECP-abandon-INV-COMI=3AN
 'She separated from him.' {aand/438}

The examples in (b) show three characteristics that are not shared by canonical associative constructions. First, the complex applied verbs do not subcategorize for an extra associative nominal. Second, in addition to the associative prefix, the verb is marked by the reciprocal prefix, ni-, occurring between the verb root and the applicative marker. And third, the presence of the reciprocal prefix in the (b) examples does not produce canonical reciprocal meanings.

In canonical reciprocal constructions, the transitive root is overtly marked as an intransitive stem by the prefix ni-, which is also a reflexive marker. Reciprocal verbs have a plural subject marked with the absolutive proclitic and a plural verbal suffix. Reciprocals, like reflexives, follow the inverse pattern. These features are illustrated in the (b) examples below:

(200) a. Active

tapa:tixü?k tu?k xu?ni yükükaj
 ta= pa:t-i =xü=k tuk xu?ni yükük+?aj
 C3(ERG)=find-COMD=EV=AN one dog black
 'He found a black dog.' {deaa/33}

b. Reciprocal

?inipa:tküxiya?
 ?i= ni- pa:t-küx-i -y =a?
 A3(ABS)=RECP-find-PL3-COMD-INVD.C=AN
 'They met each other.' {rschl/89}

(201) a. Active

mü:tak ja?mej mixwa?ne
 mü:t=ak ja?mej mix= wa:n?-e
 and =AN in that way C2(ERG)=want -INCD
 'And you love her in that way.' {zopil/217}

b. Reciprocal

?iniwanküxa?neja?
 ?i= ni- wa:n?-küx-a?n+e+j =ja?
 A3(ABS)=RECP-want -PL3-INV+IRRD=3AN
 'They are going to love each other.' {rschl/471}

Note that the verbs of examples (197b)-(199b), although being prefixed by ni-, do not follow the same pattern for marking person and number that is found in regular reciprocal constructions, such as the ones illustrated in (200b) and (201b). The examples (197b)-(199b) have an ergative proclitic and do not include a plural suffix. In contrast, reciprocal stems mark person with an absolutive proclitic and number with a plural suffix.

The normal reciprocal marking pattern is also attested with derived associative verbs, as illustrated in (202b)-(204b). The verbs of these examples take the canonical reciprocal morphology and register the expected reciprocal meaning. Similarly to the cases in (200) and (201), the verbs in (202)-(204) mark their subject with the absolutive proclitic and the plural suffix. In addition, the inverse marker is suffixed to the verbal stem. Another important feature to notice in these examples is that the reciprocal prefix ni- precedes the associative prefix mü:-. The same morphemes appear in the opposite order, mü:-ni-, when the verb does not convey reciprocal meaning, (197b)-(199b).

(202) a. Active

tamü:witi tajüyi
 ta= mü:- wit -i
 C3(ERG)=ASSOC1-walk_around-INCD

tan= jüyi
 A1(PSR)=brother_in_law
 'He was walking with my brother in law.'
 {olu26/23}

b. Reciprocal

nimü:witkükünüp je?tük
 ø= _____ ni- mü:- wit -kük-nü -ü -pa
 B3 (ABS)=RECP-ASSOC1-walk-PL3-already-INV-INCI.I

je? -tük
 that-PL
 'They are already taking each other for a walk.'
 {id2/44}

(203) a. Active

nükxixük tamü:kapxe pa:ne
 nükx-i =xú=k ta= mü:- kapx-e pa:ne
 go -COMD=EV=AN C3 (ERG)=ASSOC1-talk-INCD priest
 'He went to talk with the priest.' {lm1/31}

b. Reciprocal

despwesü nimü:kapxkükünüwak ?oyame:k
 despwes ø= _____ ni- mü:- kapx-kük-ü -nü
 after B3 (ABS)=RECP-ASSOC1-talk-PL3-INV-already

-w =ak ?oyamej =k
 -COMI=AN properly=AN
 'After that, they were talking with each other properly.' {rschl/519}

(204) a. Active

?imü:minüpxük ?iyowe
 ?i= mü:- mi:n?-nü -pe =xú=k
 A3 (ERG)=ASSOC1-come -already-INCI.T=EV=AN

?i= yo?we
 A3 (PSR)=husband
 'She was already bringing her husband.'
 {olu5/138}

b. Reciprocal

nimü:minküxüpak nimechi
 ∅= ni- mü:- mi:nʔ-küx-ü -pa =k
 B3 (ABS)=RECP=ASSOC1-come -PL3-INV-INCI.I=AN

ni+metz+i
 pair
 'The two of them are bringing each other.'
 {rspf1/532}

Consequently, the fact that examples such as (197b)-
 (199b) take the prefixes mü:- and ni- in that order but
 without adding an extra associative nominal and without
 expressing the canonical reciprocal meaning requires an
 explanation. The claim is that the derived verbs with the
 shape mü:-ni-V take the associative prefix because they
 refer to events in which the second subcategorized
 participant is not an affected theme but a human
 associative with his own volition.¹⁵ The same verbs take the
 reciprocal prefix because they describe a situation that
 may be equally true even if the agent participant is
 conveyed as object and the associative participant is
 conveyed as subject. That is, an example such as (197b)
 glossed as 'She met the mother' also implies the reverse
 situation in which the mother met the daughter. Examples of
 verbs which follow this pattern are: mü:-ni-küʔpa:t
 'marry,' mü:-ni-küʔtzi:yʔ 'shake hands,' mü:-n-inax 'meet
 on the way,' mü:-ni-nükx 'get along with somebody,' mü:-ni-

pa:t 'meet somebody, bump into somebody,' mü:-ni-pük 'live together,' mü:-ni-tzüm 'look like,' mü:-ni-tzukintun 'fight,' mü:-ni-wa:n? 'love,' mü:-ni-?ixkap 'know somebody,' mü:-ni-chu?xchikx 'greet,' etc.

The person proclitic on a verb with the shape mü:-ni-V is always ergative because the situation is not encoded as reciprocal. These situations are portrayed by the speaker as asymmetrical, i.e., with a controlling agent acting on the associative.

(205) a. tamü:nipüküwa?

tan= mü:- ni- pük -ü -w =ja?
 A1(ERG)=ASSOC1-RECP-grab-INV-COMI=3AN
 'I got together with her.' {lm3/112}

b. jumük mixmü:nipa:tiyü

jumü =k mix= mü:- ni- pa:t-i -y
 where=AN C2(ERG)=ASSOC1-RECP-find-COMD-INVD.C
 'Where did you meet with him.' {mil/55}

c. tamü:nikü?pa:tanüpa?

tan= mü:- ni- kü?+pa:t-an+ü+pa =ja?
 A1(ERG)=ASSOC1-RECP-marry -INV+IRRO=3AN
 'I will marry with her.' {aandc/74}

d. ka:nu:nka xmü:niyaktijiy

ka:=nu:nka tax= mü:- ni- yak+tij-i -y
 NEG=never C1(ERG)=ASSOC1-RECP-abandon-COMD-INVD.C
 'I never abandoned her.' {rp3/591}

- e. tamü:niwa?ne:k je? yo?jwa
 ta= mü:- ni- wa:n?-nü -e -j =k
 C3(ERG)=ASSOC1-RECP-want -already-INCD-INVD.I=AN
 je? yo?jwa
 that man
 'She is already in love with that man.'
 {rschl/499}
- f. tamü:nichu?uxchikxi:xü je?k yo?jwa
 ta= mü:- ni- chu?ux+chikx-i -y =xü
 C3(ERG)=ASSOC1-RECP-greet -COMD-INVD.C=EV
 je? =k yo?jwa
 that=AN man
 'He greeted that man.' {rs3/33}
- g. ?al tamü:ninaxiyakü
 ?al ta= mü:- ni- nax -i -y =ak
 when C3(ERG)=ASSOC1-RECP-cross-COMD-INVD.C=AN
 'When he met with him on the way [...]' {vg/172}
- h. mü:t ?imü:ni?ixkapüpu püna?
 mü:t ?i= mü:- ni- ?ix+kap-ü -pa
 and A3(ERG)=ASSOC1-RECP-know -INV-INCI.I
 pün=ja?
 DUB=3AN
 'It is likely that he knows him.' {olu26/40}
- i. despuesü tamü:nitzukintuniyakü
 despues ta= mü:- ni- tzukin+tun-i
 later_on C3(ERG)=ASSOC1-RECP-fight -COMD
 -y =ak
 -INVD.C=AN
 'Later on he fought with him.' {olu9/104}

When the two co-participants involved in the event are portrayed as having the same degree of control, the verb stem is marked as a normal reciprocal predicate. The person proclitic preceding the reciprocal marker, ni-, is not

ergative but rather absolutive, and the verb follows the inverse pattern. Note that the verb stems under these conditions do not carry the associative applicative, mü:-.

- (206) a. nimechik ?inipüküxiy jama:k jaytzu? sintzo?ye
mü:tak ya?ak tujpa?aj

ni+metz+i=k ?i= ni- pük -kük-i -y
pair =AN A3 (ABS)=RECP-grab-PL3-COMD-COMD.I

jamaj=k jaytzu? sin+tzo?y+e mü:t=ak ya? =ak
that =AN deer shameless and =AN this=AN

tuj+pa+?
hunter

'The two of them got together, the shameless deer
and the hunter.' {olu27/30}

- b. ?inipa:tküxiya?

?i= ni- pa:t-kük-i -y =a?
A3 (ABS)=RECP-find-PL3-COMD-INVD.C=AN
'They met each other.' {rschl/89}

- c. tanikü?pa:tanüpa:t

ta= ni- kü?+pa:t -an+ü+pa -:t
B1 (ABS)=RECP-get_marry-INV+IRRI-PL.SAP
'We are going to get married.' {rs5/7}

- d. ?inikü?pa:tküxiyxük je? ko:xo

?i= ni- kü?+pa:t -kük-i -y =xü=k je?
A3 (ABS)=RECP-get_marry-PL3-COMD-INVD.C=EV=AN that

ko:xo

day

'They got married that day.' {rs5/18}

- e. ?iniwanküxa?neja?

?i= ni- wa:n? -kük-a?n+e+j =ja?
A3 (ABS)=RECP-want -PL3-INV+IRRD=3AN

'They are going to love each other.' {rschl/471}

4.5. The Associative Applicative in Context

The applicative mü:- indicates that the associative nominal is a pragmatically salient participant in the discourse. The following are the contexts where the associative construction is required: 1) when the associative is in contrastive focus (clefted) or is highly emphatic, 2) when the associative is questioned, 3) when the associative is relativized, and 4) when there is a complex sentence and one of the participants of the first clause is coreferential with the semantic associative of a conjoined clause in second position.

When the associative is clefted, the verb that follows always carries the applicative mü:-.

- (207) a. jeʔkeʔ mimü:yoxtunu
jeʔ =k =jeʔ min= mü:- yoxe-tun-u
 that=AN=CLEFT A2(ERG)=ASSOC1-work-do -COMI
 'It is him you worked with.' {lm4/563}
- b. jeʔmpokeʔ ?imü:nükxpe
jeʔ =mpok=jeʔ ?i= mü:- nükx-pe
 that=also=CLEFT A3(ERG)=ASSOC1-go -INCI.T
 'It is also with him that he goes.' {mi2/179}
- c. tuʔk meʔpxeka:keʔ tamü:nükxi
tuk meʔpx+ek=ak=jeʔ ta= mü:- nükx-i
 one load =AN=CLEFT C3(ERG)=ASSOC1-go -INCD
 'It is a load (of firewood) that she is
 carrying.' {rspf2/43}

- d. jeʔ xuʔnikeʔ ʔimü:witpe
 jeʔ xuʔni=k =jeʔ ʔi= mü:- wit -pe
 that dog =AN=CLEFT A3(ERG)=ASSOC1-walk-INCI.T
 'It is the dog he is walking with.' {olu26/79}

Associatives in initial position are usually emphatic. This type of fronting differs from clefting in that the nominal in initial position does not carry the clefting marker =jeʔ. Fronted associatives trigger the use of applicative morphology on the verb.

- (208) a. chiʔtikchiknaʔ jaʔ ta:najtinaʔk tamü:witküxi
 chiʔt+ik-chik-naʔ jaʔ ta:najti-nak
 unfolded-DIM -ADJ DEF basket -DIM

ta= mü:- wit -küx-i
 C3(ERG)=ASSOC1-walk-PL3-INCD
 'With the little unfolded bag, he was walking.'
 {aandc/341}

- b. mü:tak ʔixuʔninaʔk jemak tamü:ʔiti
 mü:t=ak ʔi= xuʔni-nak jeʔ+mü=ak
 and =AN A3(PSR)=dog -DIM there =AN

ta= mü:- ʔit -i
 C3(ERG)=ASSOC1-exist-INCD
 'And with his little dog over there, he was.'
 {id1/288}

- c. ja:jaʔk ʔixuʔninakü ʔinasküʔjemak tamü:nüxno
 ja= jaʔ=k ʔi= xuʔni-nak ʔi= natzküʔ
 MIRAT=DEF=AN A3(PSR)=dog -DIM A3(PSR)=neck

-jem=ak ta= mü:- nüx-nü -e
 -LOC=AN C3(ERG)=ASSOC1-go -already-INCD
 'With his little dog on his neck, he is already going.'
 {id2/190}

The second syntactic context where the AC has to be used is in questions that ask for the identity of the associative nominal. Questions about the associative are formed using the question word ti: 'what, which' if the associative has a non-human referent (209a, b), or pün 'who' if the associative has a human referent (210a-c).

- (209) a. ti: mimú:mimpe
ti: min= mú:- mi:n?-pe
 what A2(ERG)=ASSOC1-come -INCI.T
 'What are you bringing?' {aandc/179}
- b. tza:teküsü ti: tamü:nükxpe:tüsü
 tza:tek-ütz ti: tan= mú:- nükx-pe
 we -EXCL what A1(ERG)=ASSOC1-go -INCI.T

 -:t -ütz
 -PL.SAP-EXCL
 'What do we take?' {café/98}
- (210) a. pün ?imü:nükxu
pün ?i= mú:- nükx-u
 who A3(ERG)=ASSOC1-go -COMI
 'Who did he go with?' {rp3/148}
- b. pün pü:ke? ?imü:tzukintunu
pün pü:k=je? ?i= mú:- tzukin+tun-u
 who DUB =CLEFT A3(ERG)=ASSOC1-fight -COMI
 'Who knows who did he fight with?' {rp3/291}
- c. pün ?imü:tijamü
pün ?i= mú:- tij -am
 who A3(ERG)=ASSOC1-stay-IRRI
 'Who is he going to stay with?' {rspf2/780}

The third context in which the associative applicative is obligatory is when an associative nominal is

relativized. When the head of the relative clause is coreferential with the associative within the relative clause, the verb in the relative clause is prefixed by mü:-.

- (211) a. jeʔ ʔu:ra ʔinümi tanʔami:go tamü:nükxwaʔ
 jeʔ ʔu:ra ʔi= nüm-i tan= ʔami:go
 that hour A3(ERG)=say-INCD A1(PSR)=friend

[tan= mü:- nükx-w -aʔ]
 A1(ERG)=ASSOC1-go -COMI-NMZR
 'At that time, my friend with whom I went says
 [...]' {olu28/234}

- b. ka:naspa:tiyu jeʔ mesko warrilaj tüʔni
 tamü:nükxwaʔ

∅= ka:=natz+pa:t+ʔi:yʔ-u jeʔ metzko warril
 B3(ABS)=NEG=be_enough -COMI that two barrel

tü:nʔ+i [tan= mü:- nükx-w -aʔ]
 shit A1(ERG)=ASSOC1-go -COMI-NMZR
 'The two barrels of shit I carried weren't
 enough.' {olu4/162}

- c. ʔiyakü:wuxü jeʔ majaw jeʔxü tzanaʔy ʔimü:jamatwaʔ
 ʔiyoʔwe

ʔi= yak+kü:wʔ-u =xü jeʔ majaw jeʔ =xü tzanay
 A3(ERG)=cook -COMI=EV that woman that=EV snake

[ʔi= mü:- jamat -w -aʔ ʔi= yoʔwe]
 A3(ERG)=ASSOC1-arrive-COMI-NMZR A3(PSR)=husband
 'The woman cooked the snake that her husband
 brought.' {rs4/111}

- d. tomekak seme jumü ?iyoxtuni ya?k tamü: ?itpe?
 tomek =ak seme jumü ?i= yox+e+tun-i
 nearby=AN very where A3(ABS)=work -INCD

ya? =ak [tan= mü:- ?it -pe -?]
 this=AN A1(ERG)=ASSOC1-exist-INCI.T-NMZR
 'It is very close where she is working, the one I
 am with.' {burdel/43}

- f. je? karre:ta ?imü:witu?aj nüpü:ke? ?oyi
 ta?ixna:we

je? karre:ta [?i= mü:- wit -u -a?]
 that narrow_cart A3(ERG)=ASSOC1-move-COMI-NMZR

nü+pü:k=je? ?oy -i ta= ?üx+na:w-e
 DUB =CLEFT go&return-COMD C3(ERG)=throw -INCD
 'I don't know where he went to put the narrow
 cart he used to go around with.' {viaj2/233}

The fourth context in which the associative construction occurs obligatorily is in complex sentences of the adverbial and conjoined type. In these complex structures, one of the participants of the first clause is coreferential with an associative participant belonging to the following clause. The second clause requires the applicative mü:- preceding the verb. The complex construction may or may not contain a connector intervening between the two clauses.

- (212) a. jem pü:k tyakpitzümküxi para tamü:nükxküxi
 ?itükmü
 je?+mü pü:k ta= yak- pitzüm-küx-i para
 there DUB C3(ERG)=CAUS-exit -PL3-INCD for

 ta= mü:- nükx-küx-i ?i= tük -mü
 C3(ERG)=ASSOC1-go -PL3-INCD A3(PSR)=house-LOC
 'I think they take it (the food) out from there
 in order to take it (go with it) to their
 houses.' {aand/804-5}
- b. wo:lsajotpi? ?itükiyi ?asta ?ixik ?imü:?eswa? je?
 wo:lsa
 wo:lsa-jot -pi =k ?i= tük+?i:y?-i
 bag -innards-LOC=AN A3(ABS)=enter -COMD

 ?asta ?ixi =k ?i= mü:- ?etz -w =ja?
 until similar=AN A3(ERG)=ASSOC1-dance-COMI=3AN

 je? wo:lsa
 that bag
 'He went inside the bag. It looked like he was
 dancing with the bag.' {rsch2/506}
- c. segi:do mimpak tu?k mixtuna?w yükükaj je?k
 ?imü:wa?kti:pe
 segi:do ø= mi:n?-pa =k tuk mixtun-na?w
 often B3(ABS)=come -INCI.I=AN one cat -AUGM

 yükük+?aj je? =k ?i= mü:- wa?k-ti:y?-pe
 black that=AN A3(ERG)=ASSOC1-walk-ITER-INCI.T
 'One big black cat often comes here. That one (my
 female cat) walks with it.' {aand/57-8}
- d. je?xü rro:yo tuminü ?iyaxü?k ?itzumpe yam
 ?imü:nükxnüpa?
 je? =xü rro:yo tumin ?iyaj=xü=k
 that=EV roll money here =EV=AN

 ?i= tzum-pe ya?+mü
 A3(ERG)=tie -INCI.T here

 ?i= mü:- nükx-nü -pe =ja?
 A3(ERG)=ASSOC1-go -already-INCI.T=3AN
 'That roll of money here, she is tying it here.
 She is already taking it.' {aand/270-1}

- e. che:ncho marti?n ta?ixkapuke? tamü:wa?ktiyuk wepü
kopakjotpi
che:ncho martin tan= ?ix+kap-u =k =je?
Chencho Martin A1(ERG)=know -COMI=AN=that
- tan= mü:- wa?k-ti:y?-u =k wew -pi
A1(ERG)=ASSOC1-walk-ITER -COMI=AN there-LOC
- kopak -jot -pi
mountain-innards-LOC
'I knew Chencho Martin. I used to walk with him
in the mountains.' {aandc/223}
- f. jemak mixpa:ti jemak mixmü:kapxi
je?+mü=ak mix= pa:t-i
there =AN C2(ERG)=find-COMD
- je?+mü=ak mix= mü:- kapx-i
there =AN C2(ERG)=ASSOC1-talk-COMD
'You found her there. You spoke with her there.'
{deaa/69-70}
- g. ka:ʔoyak ja:tukaj ?imü?ku ?ika:mü:ʔitiʔo:kpe ja?
ø= ka:=ʔoya=k ja:+tuk+ʔaj ?i= mü?ku
B3(ABS)=NEG=good=AN another A3(PSR)=brother
- ?i= ka:=mü:- ?it -i -ʔo:k -pe ja?
A3(ERG)=NEG=ASSOC1-exist-INCD-DESID-INCI.T 3AN
'His other brother is bad. He does not want to be
with him.' {lm4/638-9}

To sum up, the associative participant is coded as a core argument in contexts in which it refers to a pragmatically salient argument. Applied associatives are not marked by overt oblique case and have all the properties of canonical PO's. They can be clefted, relativized, passivized, and marked by the absolute proclitic on the verb in inverse, and reciprocal

constructions. The associative applicative has different effects on the argument structure of the verb root depending on the root's original valence. The applicative increases the valence of intransitive verbs by one, creating a slot for a PO. With transitive roots, the applicative does not increase the valence but rather rearranges the assignation of the syntactic slot that is normally occupied by the semantic theme (Comrie 1985). Transitive roots plus the applicative result in monotransitive verbs with an agent, an omitted or incorporated theme, and an associative functioning as the only object of the clause.

5. A Complex Associative Applicative [tomo-] < toj+mü:-

The instrumental applicative toj- in combination with the associative applicative mü:- has resulted in a second associative applicative, toj-mü:- (ASSOC2). The phonetic expression of this complex applicative is tomo-. This applicative creates ditransitive verbs from monotransitive ones. Toj+mü:- brings into core argument status an extra associative participant, resulting in a double object construction. The extra associative may be a co-agent,

i.e., a participant that acts together with another agent over a theme. For instance, in (213), the two participants who eat the fried blood are the first person, tan=, and the third person, pro:wenak 'the poor little (woman)'. The applicative makes possible the expression of the third person associative as a core argument. In (213), the associative functions as the PO and the theme as the SO.

(213) Core Associative is a Co-Agent

jumü ?i?iti fri:to tajuype tantomokaypek
 pro:wena?k
 jumü ?i= ?it -i fri:to tan= juy
 where A3(ABS)=exist-INCD fried_ A1(ERG)=buy

-pe tan= toj+mü:-kay-pe =k pro:we-nak
 -INCI.T A1(ERG)=ASSOC2- eat-INCI.T=AN poor -DIM
 'In the place where there is fried blood I buy
 it. I eat it with the poor little woman.'
 {aandc/200-2}

The extra associative may also be a co-theme, i.e., a participant that together with another theme is affected by an agent. For instance, in (214), the second person agent, min=, is eating both the food (theme) and the warm tortillas (associative). The applicative creates a second object slot that is occupied by the associative nominal.

(214) Core Associative is a Co-Theme

toypa nü:nü mintomokaype min kayaʔn
toy+pa nü:n min= toj+mü:-kay-pe
 warm tortilla A2(ERG)=ASSOC2- eat-INCI.T

 min= kay+an
 A2(PSR)=food
 'You are eating your food with warm tortillas.'
 {rs2/123}

The extra associative referring to a co-agent or a co-theme may be expressed as an oblique argument by the preposition mü:t. Transitive verb roots do not take the applicative prefix toj+mü:- when the associative is overtly oblique. Compare (213) and (214) with the following examples:

(215) a. Oblique Associative is a Co-Agent

nüxpak takaye mü:t ʔita:tatük
 nüx-pa =k ta= kay-e mü:t
 go -INCI.I=AN C3(ERG)=eat-INCD with

ʔi= ta:ta -tük

A3(PSR)=grandson-PL

'He is going to eat it (the roasted chicken) with his grandsons.' {aand/278}

b. Oblique Associative is a Co-Theme

takaye jeʔ toypa kayaʔn mü:t ni:wi
 ta= kay-e jeʔ toy+pa kay+an mü:t ni:wi
 C3(ERG)=eat-INCD that warm food with chili
 'He is eating that warm food with chili.'
 {rs9/121}

The combination of the applicatives toj- plus mü:- preceding intransitive roots exhibits formal and semantic peculiarities that are absent when the same combination of applicatives appears before transitive verb roots. First, the sequence toj-mü:- does not undergo phonological erosion before intransitive roots, i.e., the phonetic shape tomo-, illustrated in (213) and (214) with transitive verb roots, is not attested with intransitive roots. And second, transitive roots plus toj+mü:- subcategorize for an extra associative; whereas intransitive roots plus toj-mü:- subcategorize for two extra thematic nominals. The prefix mü:- makes it possible for the extra associative to be coded as a core argument. Similarly, the applicative toj- brings into core argument status an extrathematic instrument. Thus, toj-mü:- increases the valence of an intransitive verb by two. The result is a ditransitive stem with the meaning 'X uses Z along with Y when doing something.' Compare the following examples:

(216) a. Associative

tu?k ja:rru tzintzanya?a?w x mü:mi?n
 tuk ja:rru tzintzay-na?w tax= mü:- mi:n?-i
 one jar gut -AUGM C1 (ERG)=ASSOC1-come-INCD
 'I was bringing a jar full of guts.' {vg2/416}

b. Instrumental

tantojminuk kawa:yu
 tan= toj- mi:nʔ-u =k kawa:yu
 A1 (ERG)=INSTR-come -COMI=AN horse
 'I came by horse.'

c. Instrumental + Associative

tantojmü:minuk tuʔk nü:tzü kuxtaʔt
 tan= toj- mü:- mi:nʔ-u =k tuk nü:tz
 A1 (ERG)=INSTR-ASSOC1-come -COMI=AN one armadillo

 kuxtat
 sack
 'I brought one armadillo in the sack.'

(217) a. Associative

ʔikoʔpakwinmü tamü:nükxi xuʔninaʔk
 ʔi= koʔpak-win-mü ta= mü:- nükx-i
 A3 (PSR)=head -top-LOC C3 (ERG)=ASSOC1-go -INCD

xuʔni-nak
 dog -DIM
 'He is taking the little dog on top of his head.'
 {id2/192}

b. Instrumental

ja:tukak tuʔaʔw ʔitojnükxu
 ja:+tuk=ak tuʔaw ʔi= toj- nükx-u
 another=AN road A3 (ERG)=INSTR-go -COMI
 'He went using the other road.' {rspf1/373}

c. Instrumental + Associative

ti:k ʔitojmü:nükxam doktoʔr ʔitükmü
 ti:=k ʔi= toj- mü:- nükx-am
 what=AN A3 (ERG)=INSTR-ASSOC1-go -IRRI

doktor ʔi= tük- -mü
 doctor A3 (PSR)=house-LOC
 'What is he going to use when he takes her (his wife) to the doctor's clinic.' {vg2/532}

(218) a. Associative

jeʔk ʔimü:yoxtunu
 jeʔ =k ʔi= mü:- yox+e+tun-u
 that=AN A3(ERG)=ASSOC1-work -COMI
 'He worked with him.' {lm4/566}

b. Instrumental

jemak ʔiʔoyiy ʔina:xü tatojyoxtuni
 jeʔ+mü=ak ʔi= ʔoy -i -y ʔi= na:x
 there =AN A3(ABS)=exist-COMD-INVD.C A3(PSR)=land

ta= toj- yox+e+tun-i
 A3(ERG)=INSTR-work -COMD
 'He had his land there. He worked it.'
 {C1/50/298}

c. Instrumental + Associative

tantojmü:yoxetunuk xi:mu tarpa:la
 tan= toj- mü:- yox+e+tun-u =k xi:mu
 A1(ERG)=INSTR-ASSOC1-work -COMI=AN Simon

tarpa:la
 shovel
 'I worked with Simon using shovels.'

Thus, what examples (216c)-(218c) illustrate is the presence of multiple applicatives appearing together within the same stem. In contrast, the form tomo- shown in examples (213) and (214) is the reanalysis of what historically was a sequence of two applicatives into a new applicative. This new applicative brings into core argument status an extra associative, creating a ditransitive clause out of a transitive clause.

5.1. The Syntactic Status of the Applied Associative Argument: Primary vs. Secondary Object

When a transitive verb is derived by an applicative, the applied argument acquires the syntactic properties of an object. The argument structure of the clause includes two asymmetric objects: primary and secondary (cf. Dryer 1986, Bresnan and Moshi 1990). A primary object (PO) has all or most of the properties of the only object of monotransitive clauses, whereas a SO has only a few of these properties.

Double object constructions with the dative/benefactive applicative convey the theme as a SO and the benefactive as a PO. Double object constructions with the instrumental applicative code the theme as a PO and the instrumental as a SO. There are two possible ways in which the theme and the associative may be coded in double object constructions with the associative toj-mü:-. In one of them, the theme is coded as a PO and the associative as a SO; whereas in the second one, the theme is conveyed as a SO and the associative as a PO. The factor that determinates the specific syntactic status of the theme and

the applied associative is the ranking of each of these nominals in the prominence hierarchy: 1 > 2 > 3animate > 3inanimate. The non-subject participant occupying the highest position within this hierarchy will convey all the morphosyntactic properties of the PO of the clause. In contrast, the non-subject participant occupying the lowest position within the prominence hierarchy will be the argument functioning as the clausal SO.

The following four morphosyntactic properties shared by both the theme and the applied associative are true of core arguments, and only of core arguments. This means that none of these properties can be used to distinguish between Primary vs. Secondary Objects. First, both the theme and the applied associative may appear as independent (non-incorporated) and unflagged (unmarked by an adposition) nominals in the AC.

- (219) pi:nak po:poʔ ʔarrosü taxtomoyo:me tanxüknü:jü
 pi:nak po:poʔ ʔarrotz tax= toj+mü:-yo:m-e
 little white rice C1(ERG)=ASSOC2- mix -INCD
- tan= xük+nü:
 A1(PSR)=bean broth
 'I mix a little bit of white rice (THEME) with my
 bean broth (ASSOCIATIVE).' {rspf2/569}

- (220) tantomoʔe:puk ja:tuʔk yoʔjwa tanmajaw
 tan= toj+mü:-ʔe:p-u =k ja:+tuk yoʔjwa
 A1 (ERG)=ASSOC2- see-COMI=AN another man
- tan= majaw
 A1 (PSR)=woman
 'I saw my wife (THEME) with another man
 (ASSOCIATIVE).'

Second, both the theme and the associative may be cross-referenced on the verb by the third person plural marker. The third-person plural suffix -küx cross-references the theme in (221a), and the associative in (221b).

- (221) a. tantomotzaküxuk kafeʔt
 tan= toj+mü:-tzak-küx-u =k kafet
 A1 (ERG)=ASSOC2- send-PL3-COMI=AN coffee
 'I sent them (THEME) with coffee.'
- b. tantomotzaküxuk xi:mu
 tan= toj+mü:-tzak-küx-u =k xi:mu
 A1 (ERG)=ASSOC2- send-PL3-COMI=AN Simon
 'I sent Simon with them (ASSOCIATIVE).'

Third, both the theme and the associative with third-person animate reference may be marked on the verb by the enclitic =(a)k. Only third-person animate core arguments have this property. The enclitic =ak cross-references the theme in (222a), and the associative in (222b).

- (222) a. ka:na tantomokaya:mak je? tzana?y
 ka:na tan= toj+mü:-kay-am =ak je? tzanay
 salt A1(ERG)=ASSOC2- eat-IRRI=AN that snake
 'I ate the snake (THEME) with salt.'
- b. tantomokomu:tusak ?arro?s
 tan= toj+mü:-kom -u -:t -ütz =ak ?arrotz
 A1(ERG)=ASOCC2- plant-COMI-PL.SAP-EXCL=AN rice
 'We planted rice together with him
 (ASSOCIATIVE).' {C23/67/532}

Fourth, both themes and associatives relativize with nominalized relative clauses. The relativized argument is not marked within the RC by a relative pronoun. In the following two examples the nominal modified by the relative clause appears underlined and the relative clause appears between brackets. In (223) the nominal modified by a RC is coreferential with the theme within the relative clause.

- (223) ?imü:ta?awak ?inüxkik tanüme? ja? tukaj ?inü:xü
 ?itomotunwa? ?iprime?r majaw
- ?i= mü:ta?w =ak ?i= nüx-i =k ta=
 A3(PSR)=neighbor=AN A3(ABS)=go -COMD=AN C3(ERG)=
 nüm-a? -i ja? tuk+aj ?i= nü:xü
 say-APPL1-INCD 3AN one A3(PSR)=daughter
- [?i= toj+mü:-tun -w -?a? ?i= primer majaw]
 A3(ERG)=ASSOC2-make-COMI-NMZR A3(PSR)=first woman
 'His_i neighbor_j went to tell that to one of his_i
 daughters_k, the one_k he_i had with his_i first wife.'
 {C7/30/39}

In (224) the nominal modified by a RC is coreferential with the applied associative within the relative clause.

- (224) jeʔk yoʔjwa mintomokaywaʔ tzanayü ʔo:knüwaʔ
 jeʔ =k yoʔjwa [min= toj+mü:-kay-w -ʔaʔ
 that=AN man A2 (ERG)=ASSOC2- eat-COMI-NMZR
 tzanay] ø= ʔo:k-nü -w =jaʔ
 snake B3 (ABS)=die -already-COMI=3AN
 'The man you ate snake with has already died.'

In addition to the above syntactic properties that are exclusive to core arguments, there are two other syntactic properties that can be used to distinguish Primary vs. Secondary Objects within associative double object constructions. First, a PO is marked with the absolutive proclitic in the inverse pattern. The SO within the same construction appears unmarked. In the associative double object construction, the outranking object in person or animacy is the argument marked on the verb with the absolutive proclitic. Thus, the PO may be either the theme or the associative. In (225), the theme, ta= 'first person,' is the PO since it outranks the associative, kata 'Catalina,' in person.

- (225) Theme is the PO
 xi:muk tatomoʔe:pküxüwaʔ kata
 xi:mu=k ta= toj+mü:-ʔe:p-ü -w =jaʔ kata
 Simon=AN B1 (ABS)=ASSOC2- see -INV-COMI=3AN Cata
 'Simon saw me with Cata.'

In contrast, in (226), the associative, ta= 'first person,' is the PO since it outranks the theme, xük 'beans,' in person and animacy.

(226) Associative is the PO

che:mukü tatomokomüwak xükü
 che:mu=k ta= toj+mü:-kom -ü -w =ak xük
 Chemo =AN B1(ABS)=ASSOC2- plant-INV-COMI=AN beans
 'Chemo planted the beans with me.'

A second property that is restricted to PO's can be seen in passives of double object constructions. The subject of this type of passive always corresponds to the PO that is marked on the verb with the absolutive proclitic. The passive subject may be either the theme or the associative. The theme functions as the passive subject when it outranks the associative within the person and animacy hierarchy. In (227), the theme, tzanay 'snake,' is the subject of the passive construction since it outranks the associative, ?arrotz 'rice,' in animacy.

(227) Theme is the Subject of Passive

tzana?y yaktomokaya:ma? ?arro?s
tzanay ø= yak-toj+mü:-kay-am =ja? ?arrotz
 snake B3(ABS)=PASS-ASSOC2-eat-IRRI=3AN rice
 'The snake is going to be eaten with rice.'

In (228), the theme, mi= 'you,' is the passive subject since it outranks the associative, ja:tuk majaw 'another woman,' in person.

- (228) miyaktomoʔe:puk ja:tuk majaw
mi= yak- toj+mü:-ʔe:p-u =k ja:+tuk majaw
 B2(ABS)=PASS-ASSOC2- see -COMI=AN another woman
 'You were seen with another woman.'

In contrast, the associative nominal functions as the passive subject when it outranks the theme nominal in person or animacy. The examples in (229a-c) illustrate this pattern.

(229) Associative is the Subject of Passive

- a. lyoʔn yaktomokayamak yaʔk ʔi:pxtü:xi
lyon ø= yak- toj+mü:-kay-am =ak yaʔ=k
 Leon B3(ABS)=PASS-ASSOC2- eat-IRRI=AN this=AN
 ʔi:px+tü:xi
 fer-de-lance
 'Leon is going to eat the fer-de-lance along with somebody else.'
- b. miyaktomokomu xükü
mi= yak- toj+mü:-kom -u xük
 B2(ABS)=PASS-ASSOC2- plant-COMI beans
 'You planted the beans along with somebody else.'
- c. tayaktomomoʔe:pamak jeʔ tzoʔka xmü:ʔampiw-i
ta= yak- toj+mü:-ʔe:p-am =ak jeʔ tzoʔka
 B1(ABS)=PASS-ASSOC2- see -IRRI=AN that witch
 tax= mü:- ʔampiw-i
 C1(ERG)=ASSOC1-talk -INCD
 'I am going to be seen talking to the witch.'

When the theme and the associative rank the same in person and animacy, the subject of passive is assigned to the pragmatically more salient of the two participants. The highest ranked nominal in topicality is usually the one that appears first in the clause, as in (230) and (231), or the one that is anaphorically recovered from a previous clause, as in (232).

- (230) jeʔjeʔ yaktomokaypa jotkomemüʔki
 jeʔ =jeʔ ø= yak- toj+mü:-kay-pa
 that=CLEFT B3(ABS)=PASS-ASSOC2- eat-INCI.I

 jot+kom+e+mü:kʔ+i
 meat_tamal
 'And it is together with that (cacao drink) that
 the meat tamal is eaten.' {mi2/158}
- (231) mü:t ʔiyaktomojopno ʔoyamej jeʔ kakaʔw jeʔ
 ʔarrosü

 mü:t ʔi= yak- toj+mü:-jop-nü -i
 and A3(ABS)=PASS-ASSOC2- mix-already-INCD

 ʔoyamej jeʔ kakaw jeʔ ʔarrotz
 properly that cacao that rice
 'And the cacao is mixed together with the rice.'
 {C9/38/398}

(232) kawak nüxpa ?iyaktajpitzümi pichi ?i
yaktomoyo:me ?i yaktomojützi

kawak nüx-pa ?i= yak- taj-pitzüm -i
banana go-INCI.I A3(ABS)=PASS-dig-DIR:out-INCD

pitz+i ?i= yak- toj+mü-yo:m-e
leached_cornmeal A3(ABS)=PASS-ASSOC2-mix -INCD

?i= yak-toj+mü:-jütz -i
A3(ABS)=PASS-ASSOC2-grind-INCD

'The banana (root)_i is going to be pulled out and
it_i is mixed with leached cornmeal_j, and it_i is
ground with it_j.' {C11b/6/4}

To sum up, clauses with the complex prefix toj+mü:- are the only AC's where the PO properties are not consistently assigned to the same semantic participant within a clause. This pattern differs from other multi-object constructions, such as instrumental and beneficiary applicatives, where the PO properties are always assigned to the same semantic participant. This is because the highest-ranking participant in animacy in double object instrumental clauses is usually fulfilled by the theme, and in double object beneficiary clauses is always fulfilled by the beneficiary. In double object associative constructions, either of the two objects may outrank the other one in animacy or saliency. This flexibility allows either the theme or the associative to qualify as PO of the clause.

5.2. The Contexts that Trigger the Use of toj+mü:-

There is a clear difference in the degree of saliency between the associative participants occurring as core arguments versus those occurring as oblique nominals. The pragmatic saliency of applied associative nominals is higher than the saliency of the same semantic roles coded as oblique arguments. This can be clearly seen when the contexts that trigger the use of the AC are compared with the contexts where the associative is conveyed as an oblique argument. The AC is the only morphosyntactic device available when the associative argument is clefted, questioned, relativized, or when it has been introduced in a previous clause and is maintained as a prominent topic in the flow of discourse.

Clefted associative nominals appear in initial position and are marked by the enclitic =je?. Transitive roots are always derived by toj+mü:- when the associative nominal is clefted.

- (233) a. ja:je? je? mintomokayam
jaj =je? je? min= toj+mü:-kay-am
 that=CLEFT that A2(ERG)=ASSOC2- eat-IRRI
 'It is with that (ground tomato) you are going to
 eat that (the tamal).' {mi2/208}

- b. chuwa:keʔ tantomokaywaʔ tzanaʔy
chuwa=k =jeʔ tan= toj+mü:-kay-w =aʔ tzanay
 John =AN=CLEFT A1(ERG)=ASSOC2- eat-COMI=3AN snake
 'It is together with John that I ate snake.'

Questions about the associative nominal have to be expressed as AC's. In this type of construction, the question word that refers to the identity of the associative precedes the rest of the clause.

- (234) a. pün mintomoni:ki:pu me:xa
pün min= toj+mü:-ni:+ki:p-u me:xa
 who A2(ERG)=ASSOC2- clean -COMI table
 'With whom did you clean the table?'
- b. pün mintomokayuk tzanaʔy
pün min= toj+mü:-kay-u =k tzanay
 who A2(ERG)=ASSOC2- eat-COMI=AN snake
 'With whom did you eat the snake?'
- c. ti: mintomokayu piyutzuchi
ti: min= toj+mü:-kay-u piyu- tzuʔtz+i
 what A2(ERG)=ASSOC2- eat-COMI chicken-meat
 'With what did you eat the chicken?'

The third context that triggers the use of toj+mü:- is when an associative nominal is relativized. The noun modified by a relative clause is coreferential with the associative argument within a relative clause. The suffix -(ʔa)ʔ nominalizes the verb within the relative clause.

- (235) a. jeʔ nü:nü tantomokaywaʔ tzuʔchi, pakpaʔk
jeʔ nü:nü [tan= toj+mü:-kay-w -aʔ
 that tortilla A2(ERG)=ASSOC2- eat-COMI-NMZR
 tzuʔtz+i] ø= pakpak
 meat B3(ABS)=hard
 'The tortillas I ate the meat with were hard.'
- b. jeʔ puʔü mintomoyo:mwaʔ xükü ʔitüp ʔampani:wi
jeʔ puʔ [min= toj+mü:-yo:m-w -ʔaʔ xük]
 that powder A3(ERG)=ASSOC2- mix -COMI-NMZR beans
 ø= ʔit -ü -pa ʔan+pa+ni:wi
 B3(ABS)=exist-INV-INCI.I poison
 'The powder you mixed the beans with has poison.'
- c. jeʔ yoʔjwa mintomokaywaʔ tzanayü ʔo:k-u jaʔ
jeʔ yoʔjwa [min= toj+mü:-kay-w -ʔaʔ
 that man A2(ERG)=ASSOC2- eat-COMI-NMZR
 tzanay] ø= ʔo:k-u jaʔ
 snake B3(ABS)=die -COMI 3AN
 'That man you ate the snake with died.'

The fourth context in which toj-mü:- occurs obligatorily is in complex sentences of the conjoined and juxtaposed type. In these complex structures, the associative is coreferent with a previously introduced argument carrying a different semantic role within the clause. The associative of the conjoined or juxtaposed clause is a continuous topic and is coded as a core argument via the AC. Conjoined and juxtaposed complex constructions may or may not contain a connector or other conjunction intervening between the two clauses. The

nominal that is coreferential with the applied associative appears underlined in the following examples.

- (236) ʔarrosü ʔapa:rte jeʔ mixyakʔonatoyaʔn para
 mixtomokaynoʔoneʔ minʔu:piʔk
ʔarrotz ʔapa:rte jeʔ mix= yak+ʔona+toy-an
 rice apart that C2(ERG)=fry -IRRD

 para mix= toj+mü:-kay-nü -an =jeʔ
 for C2(ERG)=ASSOC2- eat-already-IRRD=that

 min= ʔu:p+ik
 A2(PSR)=chilli_sauce
 'Rice_i apart, you are going to fry it_i in order
 that you can eat your chilli sauce together with
it_i.' {mi2/186-7}
- (237) taxyakʔonatoye jeʔ xükü, san seme jokchiʔk, jaʔ
 jütütnü:nü tantomokaype
 tax=yak+ʔona+toy-e jeʔ xük san seme jokchik
 C1(ERG)=fry -INCD that beans very very tasty

 jaʔ jütüt-nü:nü tan= toj+mü:-kay-pe
 DEF thin -tortilla A1(ERG)=ASSOC2 -eat-INCI.T
 'I fry beans. They are very tasty. I eat thin
 tortillas with them.' {rspf2/560}
- (238) a. minni:piwam minchi:pintzüʔpi
 min= ni:+piw-am min= chi:pin+tzü:pʔ+i
 A2(ERG)=pick -IRRI A2(PSR)=pigweed
 'You are going to pick your pigweed_i' {mi2/199}
- b. mü:t mixtuʔtaʔaʔn minxükü ʔo sino minmüʔki
 mü:t mix= tu:tʔ-aʔ -an min= xük
 and C2(ERG)=put -APPL1-IRRD A2(POSS)=beans

 ʔo sino min= mü:kʔ+i
 or otherwise A2(PSR)=tamal
 'and you are going to add it_i to your beans or to
 your tamales.' {mi2/200-1}

c. minpükam minjüchi mü:t mixtomoyo:maʔn
 min= pük -am min= jützi
 A2 (ERG)=grab-IRRI A2 (PSR)=dough
 mü:t mix= toj+mü:-yo:m-aʔn
 and C2 (ERG)=ASSOC2- mix -IRRD
 'You are going to grab your dough, and you are
 going to mix it, with it_i.' {mi2/202-3}

(239) mü:t mixtunan minchipin moʔtze para mixtomokayan
 minmüʔki
 mü:t mix= tun -an min= chipin moʔtze
 and C2 (ERG)=make-IRRD A2 (PSR)=tomato ground
 para mix= toj+mü:-kay-an min= mü:kʔi
 for C2 (ERG)=ASSOC2- eat-IRRD A2 (PSR)=tamal
 'You are going to prepare your ground tomato_i in
 order that you can eat your tamal with it_i.'
 {mi2/205}

In contrast, oblique associatives marked by mü:t 'with' express participants that are low in saliency, i.e., participants that have not been introduced before and that are not going to be important referents in the subsequent paragraphs. Oblique associatives are not anaphorically recoverable in juxtaposed and conjoined clauses. When the referent of an oblique associative is reintroduced again in subsequent clauses, this participant is expressed with an overt nominal phrase. For instance, the clause in (240) comes from a story of a man who found two heavy sacks on the road in his way home. The man believes that the sacks contain money, and loads them in his cart. Once he is at home, he discovers that instead of money the sacks contain

rocks. The narrator tells the listener that what he is saying is a true story that happened when he was younger. In those times, the narrator met the protagonist of the story and his son. The storyteller refers to the man with the anaphoric pronoun ja? and introduces a new referent, the man's son, with an oblique phrase.

- (240) ʔü:s taʔixkapuna ja? mü:tak ʔiʔunaʔk
 ʔü:tz tan= ʔix+kap-u =na ja? mü:t=ak
 I A1(ERG)=know -COMI=still 3AN and =AN
- ʔi= ʔunak
 A3(PSR)=offspring
 'I even met him and his son.' {viaj2/244}

This new referent, which is not important for the story, is not conveyed as a core argument via the applicative toj-mü:- construction. Instead, the referent is mentioned again six clauses later with the oblique phrase marked by mü:t.

- (241) taʔixkapuna ja? mü:t ʔiʔunaʔk
 tan= ʔix+kap-u =na ja? mü:t
 A1(ERG)=know -COMI=still 3AN and
- ʔi= ʔunak
 A3(PSR)=offspring
 'I even met him and his son.' {viaj2/250}

The following example comes from a conversation between two speakers. They are gossiping about an old lady

who begs for money in the neighboring town. The example (242) comes from a segment in which one of the speakers tells the other one that the old lady buys meat with the money she obtains in the neighboring town. When she brings the meat home, she eats it in the company of her grandsons. The oblique phrase (mü:t) ?ita:tatük '(with) her grandsons' is a referent that has not been introduced previously in the conversation.

- (242) nüxpak takaye mü:t ?ita:tatük
 nüx-pa =k ta= kay-e mü:t
 go -INCI.I=AN C3(ERG)=eat-INCD with

 ?i= ta:ta -tük
 A3(PSR)=grandson-PL
 'She is going to eat it with her grandsons.'
 {aand/278}

The same speaker mentions the same participant twenty-four clauses later. Instead of using the toj-mü:- AC to reintroduce the non-important participant, the speaker uses a full nominal phrase.

- (243) nümpak ?itunamak tanta:ta tantükü
 nüm-pa =k ?i= tun-am =ak tan= ta:ta
 say-INCI.I=AN A3(ERG)=do-IRRI=AN A1(PSR)=grandson

 tan= tük
 A1(PSR)=house
 'She (the old lady) says: "My grandson is going
 to build my house." {aand/292}

In sum, there are two patterns for conveying the associative nominal within transitive clauses. Pragmatically salient associatives are coded as core arguments via the applicative toj+mü:-. Non-salient associatives are expressed as oblique nominals. This contrast makes clear that the main function of the applicative toj+mü:- is to index pragmatically salient non-licensed participants as direct core arguments of the clause.

6. The Purpose, Reason or Motive Applicative toko-

Participants coding purposes, reasons or motives may be registered on the verb complex by the applicative toko- 'REASON'. For instance, the verb root jü:y? 'cry' plus the applicative toko- results in the complex verb toko-jü:y? 'cry for a reason.' The applicative toko- originated historically from the combination of the instrumental applicative toj- prefixed to the lexical prefix ko:-. This lexical prefix has been reconstructed as a 'benefactive' marker for Proto-Mixe-Zoque by Wichmann (1995: 534). The Olutec form ko:- exhibits various functions and meanings. It occurs with nouns adding the meaning 'step, half,

foster,' as in ko:-ʔunak [STEP-son] 'fosterchild' and ko:-tükaw [STEP-father] 'step-father.' The same lexical prefix occurring with verbs functions as a directional 'downwards' in combination with the suffix -ta:kʔ as in ko:-wotz-ta:kʔ 'pull downwards' < wotz 'pull,' and ko:-wop-ta:kʔ 'crush' < wop 'hit.' Ko:- before some verbs adds a benefactive or malefactive sense, as in ko:-chikx [BENEFACTIVE-have] 'take care of somebody' and ko:-kapx [BENEFACTIVE-speak] 'defend.' Finally, in many cases the combination ko:- plus a verb results in a semantically non-compositional verb complex, such as ko:-ma:jʔ [BENEFACTIVE-sleep] 'dream about.'

Reasons, purposes or motives may be expressed by either nominal phrases or clauses that occur after the subordinator porke 'because,' borrowed from Spanish porque.¹⁶ The verb takes the applicative toko- when the participant expressing reason is pragmatically salient. In (244a) the nominal phrase expressing the reason of crying is not registered on the verb in any way. In contrast, in (244b), the reason participant is registered on the verb by the applicative toko-. Note that the question word ti: 'what' is not preceded by porke.

- (244) a. tajüpa porke por tanmajaw
 ta= jü:yʔ-pa porke por tan= majaw
 B1 (ABS)=cry -INCI.I because for A1 (PSR)=woman
 'I am crying for my wife.' {olu5/33}

- b. ti: mitokojüypa
 ti: mi= toko- jü:y?-pa
 what B2 (ABS)=REASON-cry -INCI.I
 'Why are you crying?' {olu5/32}

6.1. The Syntactic Status of the Applied Argument

Unlike the other Olutec applicatives that increase the valence of the verb by one, the prefix toko- does not create a new core argument slot within the clause. A verb exhibits the same valency with or without toko-. The only function of the applicative toko- is to make explicit that the clause contains a pragmatically salient reason or motive participant. This type of function of an applicative morpheme is well known in Mayan languages. For instance, in some Mayan languages (e.g. Ixil, Cakchiquel) one and the same verbal affix can function as a true applicative that rearranges the argument structure of the clause, or as a marker that registers a pragmatically salient participant without coding it as a core argument. In Mayan linguistics, the use of the applicative as a verb-changing operator has been analyzed as a voice alternation or as a process of "promotion" or "advancement" from oblique to direct object

(cf. Norman 1978, Ayres 1983, Aissen 1990, Smith-Stark 1994). In contrast, Mayanists have used the term "registration" (Norman 1978, Aissen 1990) or "indexation" (Ayres 1983) to refer to the process by which the cognate morpheme signals only "object extraction" (i.e., non-core arguments occurring in questions, relative clauses, focus or topic clauses) without marking a change in grammatical relations. The function of the Olutec applicative toko- is similar to the phenomenon known as registration by Mayanists.

Non-verbal predicates and intransitive verbs prefixed by toko- stay intransitive. Note that the subject within examples (245a-c) is expressed by the absolutive proclitic. Note, also, that the aspect marker following the verb root in (245b and c) is -pa (incompletive for intransitives) and not -pe (incompletive for transitives).

(245) a. toko- + Non-Verbal Predicate = Intransitive

tamoyuk tzoyü tokota?nükak seme ?ipu?pu
 tan= mo:y? -u =k tzoy
 A1(ERG)=give -COMI=AN medicine

∅= toko= ta?nük=ak seme ?i= pu?pu
 B3(ABS)=REASON=big =AN very A3(PSR)=belly
 'I gave him medicine because he has a big belly.'

b. toko- + Intransitive Verb = Intransitive Verb

ti:k yaʔaj ka:tokokaypa
 ti =k yaʔaj ø= ka:=toko- kay-pa
 what=AN this B3(ABS)=NEG=REASON-eat-INCI.I
 'Why isn't he eating?' {olu6/102}

c. ti: mika:tokoma:pa
 ti: mi= ka:=toko- ma:jʔ-pa
 what B2(ABS)=NEG=REASON-sleep-INCI.I
 'Why aren't you sleeping.'

When a transitive verb is prefixed by toko-, the verb stays transitive. The causative verb yak-tij 'abandon' is monotransitive in both its simple (246a) and derived form (246b). In its simple form, the clause expressing reason is not registered in the verb. In contrast, the applicative toko- before yak+tij indicates that the transitive clause includes an additional pragmatically salient nominal phrase expressing reason. This phrase encoding reason stays as a peripheral participant as will be shown below.

(246) a. ʔiyaktiju jeʔ tükü porke ʔiyakʔo:kuk tuʔk
 ʔi= yak- tij -u jeʔ tük
 A3(ERG)=CAUS-stay-COMI that house

porke ʔi= yak- ʔo:k-u =k tuk
 because A3(ERG)=CAUS-die -COMI=AN one
 'He abandoned that house because he killed one (man).'

b. mü:t pak teʔejü ti: mintokoyaktiju tanka:rrojotpi
mesko ni:nyo

mü:t pak teʔej ti: min= toko- yak- tij -u
and ADM now what A2 (ERG)=REASON-CAUS-stay-COMI

tan= ka:rro-jot -pi metzko ni:nyo
A1 (PSR)=car -innards-LOC two child
'And now, why did you abandon the two children
inside my cart?' {rschl/77}

When a non-agentive bivalent verb takes the applicative toko-, the verb stays syntactically bivalent. The derived verb küj-tij 'be left for someone,' illustrated in (247a), belongs to the class of non-agentive bivalent verbs. The semantic theme is the land, and the semantic benefactive is the person who inherited it. The verb follows the inverse pattern since the human benefactive outranks the inanimate theme in saliency. The applicative toko- added to the verb küj-tij in (247b) does not change the number of syntactic arguments available within the clause. The applicative only registers the peripheral participant ti: 'what' as a thematically prominent argument of the clause.

- (247) a. ʔiküjtijüniyakü na:xüko jeʔ tanti:yu
 ʔi= küj- tij -nü -i -y =ak
 A3 (ABS)=APPL2-stay-already-COMD-INVD.C=AN

 na:x =koj jeʔ tan= ti:yu
 earth=just that A1 (PSR)=uncle
 'The land was left for my uncle.' {vg3/238}
- b. ti:k tokoküjtijüwü tantiyu tra:nki
 ti: =k ø= toko- küj- tij -ü -w
 what=AN B3 (ABS)=REASON-APPL2-stay-INV-COMI

 tan= tiyu tra:nki
 A1 (PSR)=uncle Tranquilino
 'Why was it (the land) left for my uncle
 Tranquilino?' {vg3/171}

Since the toko- AC does not change the verb valency, it is clear that "reason", "motive" and "purpose" do not possess any of the syntactic properties associated to objects (secondary or primary). That is, they are not cross-referenced on the verb by the absolutive proclitic or the plural marker; they are not the subjects of passives; and they do not trigger the inverse pattern when they outrank the subject argument in saliency. In the inverse clause in (248), the first person absolutive proclitic cross-references the benefactive PO. In contrast, the applied reason participant does not cross-reference the person proclitic on the verb.

(248) ti: pü:k yaʔaj tatokotunaʔxüp
 ti: pü:k yaʔaj
 what DUBIT this

ta= toko- tun-aʔx -ü -pa
 B1(ABS)=REASON-do -APPL1-INV-INCI.I
 'Why is he doing that to me?' {lm3/17}

In the passive clause in (249), the absolutive and plural markers cross-reference the theme and not the reason participant that is also registered by the applicative toko-.

(249) yaʔk na:xko:te:kutük kaʔutküküwaʔ
 ʔiyaktokochiküxi ʔina:xü

yaʔaj=ak na:x-ko:te:ku-tük
 this =AN land-owner -PL

ø= ka= ʔut -kük-ü -w =jaʔ
 B3(ABS)=NEG=like-PL3-INV-COMI=3AN

ʔi= yak- toko- chik -kük-i
 A3(ABS)=PASS-REASON-take_away-PL3-INCD

ʔi= na:x
 A3(PSR)=land

'The landowners didn't like that because their land was taken away from them.' {vg2/278}

6.2. The Reason Applicative in Context

The applicative toko- occurs in a clause when a nominal expressing reason is a highlighted participant in

the discourse. The following are the two contexts where the applicative is syntactically required: 1) when the reason participant is in contrastive focus (clefted) or is highly emphatic, and 2) when the associative is questioned.

When the reason is clefted, the verb that follows always carries the applicative toko-.

- (250) a. jeʔmü:ta:keʔ ka:yaktokochikuxü jaʔ
jeʔ+mü:t=ak=jeʔ
 for_that=AN=CLEFT

∅= ka:-yak- toko- chik -u =xü jaʔ
 B3 (ABS)=NEG-PASS-REASON-take_away-COMI=EV 3AN
 'It is because of that, that it (their land) was not taken away.' {vg2/296}

- b. jeʔmü:takeʔ tatokokayi tzanaʔy para
 ʔiküjkeʔkaʔne:k xikü
jeʔ+mü:t=ak=jeʔ ta= toko- kay-i tzanay
 for_that=AN=CLEFT C3 (ERG)=REASON-eat-COMD snake

para ʔi= küj- ke:kʔ-aʔn+e=k xikü
 for A3 (ABS)-APPL2-move -IRRD =AN mange
 'It is because of that, that he ate the snake. He did it in order to get rid of the mange.'

- c. ti:keʔ mintokoʔixna:pe jeʔ chu:chunaʔk
ti:=k=jeʔ min= toko- ʔüx+na:w-pe
 what=AN=CLEFT A2 (ERG)=REASON-throw -INCI.T

jeʔ chu:chu-nak
 that small -DIM
 'Why is it that you are throwing that little boy?' {rschl/47}

The applicative toko- appears obligatorily before the verb when the nominal expressing reason is questioned, as

shown in (244b), (245), (246b), (247b) and (248). There are two question words that are used to inquire about the reason or motive: por 'for,' which was borrowed from Spanish, and ti 'what'. The two words can appear in combination before the derived verb, as in (251).

- (251) por ti tanka:tokowinjützam mintuku
 por ti: tan= ka:=toko- win+jütz-am
 for what A1(ERG)=NEG=REASON-scrape -IRRI

 min= tuku
 A2(PSR)=cloth
 'Why shouldn't I iron your clothes?' {rp2/572}

However, the simple form ti is more commonly attested when the reason participant is questioned.

- (252) a. ti?k ?itokoyu:ku yam
 ti: =k ?i= toko- yu:k-u ya?+mü
 what=AN A3(ERG)=REASON-hide-COMI here
 'Why did he hide it here?' {rp2/345}
- b. ti: mintokokaype
 ti: min= toko- kay-pe
 what A2(ERG)=REASON-eat-INCI.T
 'Why are you eating it?' {lm4/98}
- c. ti: mintokoyoxtuna?am je? yo?jwa
 ti: min= toko-yox+e+tun-a?-am je? yo?jwa
 what A2(ERG)=REASON-work-APPL1-IRRI that man
 'Why are you going to work for that man?'
 {olu28/648}

In other contexts in which the reason participant is involved, the applicative toko- is optional, i.e., its presence is motivated by pragmatic factors. The following are pairs of examples that include a verb followed by a clause expressing reason. In the examples in (a), the reason participant is not registered on the verb, whereas in the examples in (b), the first verb takes the applicative toko- signaling that the clause includes a thematically prominent participant expressing reason. Note that the subordinator porke introduces the reason clause in both cases.

- (253) a. tanümpe ?ü:sü porke tantükawak tanüma?xüw
 tan= nüm-pe ?ü:tz porke
 A1(ERG)=say-INCI.T I because

 tan= tükaw =ak ta= nüm-a?x -ü -w
 A1(PSR)=father=AN B1(ABS)=say-APPL1-INV-COMI
 'I am saying that because my father told me
 that.' {café/77}
- b. tantokonümpe porke ?oyi x?e:pe
 tan= toko- nüm-pe
 A1(ERG)=REASON-say-INCI.T

 porke ?oy -i tax= ?e:p-e
 because go_&_return-COMD C1(ERG)=see -INCD
 'I am saying that because I went to see it.'
 {milagro/19}

- (254) a. ?iyakmo?anxü kaye porke yu:jüxük ?itüp
 ?i= yak- mo:y?-an =xü kay-e
 A3(ABS)=PASS-give -IRRD=EV eat-NMZR

porke yu: =xü=k ø= ?it -ü -pa
 because hunger=EV=AN B3(ABS)=exist-INV-INCI.I
 'He will be given food because he is hungry.'
 {rs3/37}

- b. tantokomoyu tu?k piyunakü porke kujumikak ?i?iti
 tan= toko- mo:y?-u tuk piyu -nak porke
 A1(ERG)=REASON-give -COMI one chicken-DIM because

kujum -ik =ak ?i= ?it -i
 be_sick-PCP=AN A3(PSR)=exist-INCD
 'I gave him a little chicken because he is sick.'

- (255) a. mintzu:kxa:mak ta?na porke nüknüpa?
 min= tzu:kx-am =ak ta?na porke
 A2(ERG)=kiss -IRRI=AN a_lot because

ø= nükn-nü -pa =ja?
 B3(ABS)=go -already-INCI.I=3AN
 'You are going to kiss him many times because he
 is leaving.'

- b. mintokotzu:kxa:mak ta?na porke nüknüpa?
 min= toko- tzu:kx-am =ak ta?na porke
 A2(ERG)=REASON-kiss -IRRI=AN a_lot because

ø= nükn-nü -pa =ja?
 B3(ABS)=go -already-INCI.I=3AN
 'You are going to kiss him many times because he
 is leaving.' {AA/VER/2000}

In sum, similar to other applicatives, toko- occurs in contexts in which the non-licensed nominal or clause expressing reason is pragmatically salient. The difference between toko- and the other applicatives is that the

applied nominal expressing reason does not become a core argument of the clause. The applicative toko- makes explicit that in addition to the core arguments licensed by the verb, the clause contains an important participant expressing reason. This type of behavior of an applicative morpheme has not been discussed in the literature. Formal treatments of applicative and voice constructions do not consider this type of morpheme as a true applicative since clauses that include morphemes equivalent to toko- exhibit the same grammatical relations to the ones attested in constructions with underived verbs. I consider toko- a true applicative because it shares the same slot occupied by other applicative prefixes and because it is used under the same syntactic conditions that trigger the use of canonical applicatives.

From a functional and diachronic point of view, constructions of the type illustrated by toko+V are of particular interest since they can be argued to be the first stage out of which canonical AC's evolved.

7. Multiple Applicatives

Olutec is one of the few reported languages in which more than one applicative can occur with a base verb. There are languages in which the same applicative may be affixed more than once to the same verb base. For instance, in Huastec (Constable 1989) and Sierra Popoluca (Marlett 1986), the benefactive applicative can appear twice within the same verb stem to encode events that include four participants. In these two languages clauses such as 'the man brought the corn for the woman on the kid's behalf' convey the third (woman) and fourth (kid) participants as applied arguments. On the other hand, a base verb in Northern Interior Salish languages (Samkoe 1994) and Kinyarwanda (Kimenyi 1980) may be derived by more than one applicative marker with different form and function. In Salishan languages, a benefactive applicative may co-occur with a stimulus applicative. In Kinyarwanda, a locative applicative may co-occur with a benefactive applicative. Olutec multiple applicative constructions are of the type exhibited by Salishan languages and Kinyarwanda, i.e., applicatives with different form and function may occur attached to the same verb base.

My corpus contains several instances in which a verb is affixed by two applicatives. Some of the combinations are shown in (256) to (260). The intransitive base verbs shown in (256a-c) contain the associative applicative, mü:-, and the benefactive applicative, -ja:y?. The derived verb stems are ditransitive. The associative functions as SO and the benefactive as PO. The PO status of the benefactive is confirmed by the person marking on the verb. In (256a), the proclitic tax= indexes a relation between first-person agent acting on second-person PO. The proclitic ta= in (256c), which is an inverse clause, refers to the recipient (PO).

(256) Associative + Addressee/Benefactive/Recipient

- a. ?iyaj taxmü:minayu ja?
 ?iyaj tax= mü:- mi:n?-ay -u ja?
 here C1 (LOCAL)=ASSOC1-come -APPL1-COMI 3AN
 'Here, I brought these (animals) for you.'
 {koya/206}
- b. je?k ?imü:nükxayu ?iyo?we kama?p
 je? =k ?i= mü:- nükx-ay -u
 that=AN A3 (ERG)=ASSOC1-go -APPL1-COMI
- ?i= yo?we kama -pi
 A3 (PSR)=husband corn_field-LOC
 'She took that one (a big fish) to her husband
 (who was working) in the field.' {rspf2/82}

- c. jeʔxükü tamü:minaʔxüp ʔitzümi
 jeʔ =xü=k ta= mü:- mi:nʔ-aʔx -ü -pa
 that=EV=AN B1 (ABS)=ASSOC1-come -APPL1-INV-INCI.I

 ʔi= tzüm+i
 A3 (PSR)=load
 'That one used to bring the load to me.'
 {viaj2/240}

The intransitive verb nax 'cross' plus the instrumental toj- results in the transitive verb tojnax 'suffer'. This verb is prefixed by the associative mü:- in (257). The result is the ditransitive verb mü:tojnax 'suffer with somebody'. The applied associative is the PO of the clause.

(257) Associative + Instrumental

jeʔk tamü:tojnaxi
 jeʔ =k ta= mü:- toj- nax -i
 that=AN C3 (ERG)=ASSOC1-INSTR-cross-INCD
 'She is going to suffer with him.' {rp3/141}

In the following examples the transitive verb tzuktuk 'cut,' (258a), and puj 'wash,' (258b), co-occur with both the instrumental and benefactive applicatives. The clause contains four core arguments: an agent, a theme, a benefactive and an instrument. The benefactive functions as the clausal PO. This is shown by the fact that the absolutive cross-references the benefactive in (258b).

(258) Instrumental + Addressee/Benefactive/Recipient

- a. jaʔk kuchi:nu ʔitojtzuktukayu
 jaʔ=k kuchi:nu ʔi= toj- tzuk+tuk-ay -u
 DEF=AN knife A3(ERG)=INSTR-cut -APPL1-COMI
 'He (the monster) cut her nose with the knife.'
 {rsch2/372}
- b. ka:nanü:jü tantojpujayiy tanwinü
 ka:na-nü: tan= toj- puj -ay -i -y
 salt- water A1(ABS)=INSTR-wash-APPL1-COMD-INVD.C

 tan= win
 A1(PSR)=eye
 'She washed out my eye with salty water.'
 {rp3/C/339}

When the reason applicative toko- co-occurs with other applicatives, the argument structure of the clause is determined only by the inherent arguments of the base verb plus the ones brought by the applicatives other than toko-. For instance, the transitive verbs, yoxetun 'work,' (259a), and tun 'do,' (259b), derived by the benefactive applicative are ditransitive verbs. The applicative toko- registers the reason participant, ti: 'what,' as a pragmatically salient participant, not as a core argument.

(259) Reason + Addressee/Benefactive/Recipient

- a. ti: mintokoyox²tuna²am je² yo²jwa
 ti: min= toko- yox+e+tun-a² -am je²
 what A2(ERG)=REASON-work -APPL1-IRRI that
 yo²jwa
 man
 'Why are you going to work it (the land) for that
man?' {olu28/648}
- b. ti: pü:k ya²aj tatokotuna²xüp
 ti: pü:k ya²aj ta= toko- tun-a²x -ü
 what DUB this B1(ABS)=REASON-do -APPL1-INV
 -pa
 -INCI.I
 'Why is he doing that to me?' {lm3/17}

The same pattern can be seen in clauses with non-agentive intransitive verbs derived by the applicative küj-. The derived verb küj-tij 'be left for someone' includes the theme and the benefactive as core arguments. When this verb is prefixed by toko-, the verb valency stays intact.

(260) Reason + Benefactive

- ti:k tokoküjtijüwü tantiyu tra:nki
 ti: =k ø= toko- küj- tij -ü -w
 what=AN B3(ABS)=REASON-APPL2-stay-INV-COMI
 tan= tiyu tra:nki
 A1(PSR)=uncle Tranquilino
 'Why did he keep it (the land)?' {vg3/171}

Among the multiple syntactic objects occurring in AC's, only one may function as PO. In multiple AC's, the PO

status is always assigned to the non-subject participant that ranks the highest within the saliency hierarchy (1 > 2 > 3proximate > 3obviative). Three has been the maximum number of objects found among the tokens of multiple applicative clauses within my corpus. When one of the applied arguments is a benefactive/ addressee/recipient, no other applied argument can function as PO, as shown in (261a, b). The four participants conveyed as core arguments in (261a) are: the agent (he) functioning as subject, the associative (corn) and the instrumental (sack) functioning as SO's, and the benefactive (first-person) functioning as PO. In (261b), the associative (Simon) and the theme (your house) are the SO's, whereas the benefactive (second-person) is the PO.

(261) a. tatojmü:mina?xüw je?k kustatü mo:kü
 ta= toj- mü:- mi:n?-a?x -ü -w je? =k
 B1 (ABS)=INSTR-ASSOC1-come -APPL1-INV-COMI that=AN

kustat mo:k
 sack corn
 'He brought the corn in a sack for me.'

b. sa:rak mitomona?tza?xanüpak xi:mu mintükü
 sa:ra=k mi= toj+mü:-na?tz-a?x -an+ü+pa =k
 Sara =AN B2 (ABS)=ASSOC2- paint-APPL1-INV+IRRI=AN

xi:mu min= tük
 Simon A2 (PSR)=house
 'Sara and Simon are going to paint your house for you.'

In sum, constructions with multiple applicatives create multiple object clauses. Saliency is the most important factor that decides which of the multiple objects takes the PO status. Since benefactives, addressees, and recipients are prototypically animate, Olutec has syntacticized this participant as the canonical PO argument of multiple applicative clauses.

8. Conclusions

Olutec applicative constructions, as have been defined in this chapter, are constructions that allow the coding of peripheral participants as pragmatically salient participants. The definition used here is different from the one offered by most of the syntactic theories as well as the one most commonly used in the typological literature. It is usually assumed that applicative constructions bring into object position oblique participants that are not selected by the argument frame of the base verb root. Some of the AC's examined here conform to the expected patterns predicted by syntactic theories

(e.g. -ja:y? and mü:- AC's), but others do not. Olutec has AC's in which the applied argument behaves as a subject of an extended intransitive (küj- AC), as a SO (toj- AC), as Secondary or Primary Object (toj+mü:- AC), or as oblique (toko- AC). Constructions in which the applied argument does not acquire Object status wouldn't be considered AC's by Relational Grammarians and many typologists (cf. Mithun 1999; Peterson 1999 inter alia). Both syntactic theories and cross-linguistic studies have only dealt with a limited set of constructions that fit into a structurally based definition. The various constructions investigated in this chapter are treated as AC's because they exhibit a distinctive functional and structural profile and because they are marked by a set of morphemes that belong to two distinct paradigms. The verbs of AC's included in this study bear an applicative morpheme any time a peripheral participant is questioned, relativized, focused or when it is treated as a topic within a clause-chaining construction. Neither the changes in valency nor the argument structure rearrangements have been taken as defining features of Olutec AC's. This is because these two features are not shared by all constructions. Thus, the basic claim of the definition used here is that the basic function of AC's is to indicate that the applied argument

has greater discourse saliency or topic continuity than would otherwise be expected (cf. Rude 1985, 1986a, 1986b).

The assignation of the PO status within AC's depends on factors such as transitivity of the base verb, saliency/animacy of the arguments involved in the clause, and semantic role of the applied object. The applied object always functions as PO when it is added to intransitive base verbs. The situation is different when the applied argument is added to transitive verbs. In these circumstances, the most salient of the objects involved in the clause functions as PO.

The changes in argument structure that take place with different applicatives affixed to the various verb types are summarized in (262). The following abbreviations are used APPL-ARG: applied argument, SUBJ: subject, O: single object of monotransitives, SO: Secondary Object, PO: Primary Object, and XXX non-existing structure.

(262) Status of Arguments in Applicative Constructions

	<u>INTRANSITIVE</u> <u>BASE VERB</u>		<u>TRANSITIVE</u> <u>BASE VERB</u>
<u>-ja:y?</u> (APPL1: 'benefactive')	base SUBJ -> SO APPL-ARG -> S		base O -> SO APPL-ARG -> PO
<u>küj-</u> (APPL2: 'benefactive')	base SUBJ -> SO APPL-ARG -> S		XXX XXX
<u>toj-</u> (INSTR: 'instrumental')	base SUBJ -> S APPL-ARG -> PO		base O -> PO APPL-ARG -> SO
<u>mü:-</u> (ASSOC1: 'associative')	base SUBJ -> S APPL-ARG -> PO		base O -> INERT APPL-ARG -> PO
<u>toj+mü:-</u> (ASSOC2: 'associative')	XXX XXX		base O -> PO/SO APPL-ARG -> PO/SO
<u>toko-</u> (REASON: 'reason')	base SUBJ -> S APPL-ARG -> OBL		base O -> PO APPL-ARG -> OBL

Thus, what is considered a canonical AC with the applied argument functioning as PO may have evolved from a construction in which the applied argument functioned as the pragmatically salient participant of the clause without any change or rearrangement in the argument structure of the clause. The AC that takes the prefix toko- is a synchronic manifestation of this stage. In a second stage, the pragmatically salient applied object was reanalyzed as a syntactic object (Secondary or Primary), creating

ditransitive constructions when occurring with transitive base verbs. This second stage is synchronically attested by AC's including the morphemes -ja:yʔ, toj-, mü:-, and toj+mü:-. In the least syntacticized of the AC's, the PO status is determined by the ranking of the competing arguments in the saliency hierarchy (1 > 2 > 3 (animate > inanimate > proximate > obviative)). When the base object outranks the applied object in saliency, the first one stays as PO. When the situation is reversed, the base object is the SO and the applied object is the PO. The AC that takes the prefix toj+mü:- is the synchronic manifestation of this stage. Three AC's (-ja:yʔ, toj-, mü:-) have syntacticized the principle by which the PO status is assigned to the most salient of the two competing objects in such a way that only one semantic participant of ditransitive constructions may behave as PO, leaving out the possibility of alternations based on pragmatic factors. In associative AC's, only the associative may function as PO. In benefactive AC's, only the benefactive/recipient may function as PO. In contrast, in instrumental ditransitive AC's only the theme may function as PO.

The ditransitive AC that contains a theme and a benefactive/recipient/addressee has grammaticalized as the only option for coding the benefactive/recipient/addressee

role within the clause. Olutec does not have adpositions to mark extra-thematic benefactives/recipients/addressees. Thus, it is clear that what originally was a derived alternative way to code a relation between three participants has been completely reanalyzed as a basic construction. Additional comparative research in other Mixe-Zoquean languages could shed light on other paths of syntacticization of the AC within this language family.

Notes

¹ Shibatani (1996) maintains that the morphology that brings the benefactive into core argument status should not be considered a subtype of applicative. His claim is that benefactives differ from other applicatives in that the former cannot occur with intransitive base verbs. This restriction does not apply for Olutec and many other languages (cf. Austin 1997, Marlett 1986, Constable 1989 *inter alia*.)

² Nahuatl (Uto-Aztecan) contains only the benefactive applicative (Sullivan 1976). Tepehua (Totonacan) exhibits four applicatives: benefactive, instrumental, directional and comitative (Watters 1988, 1989, 1996). Among the Mayan languages, Huastec (Constable 1989) exhibits two applicatives (instrumental and benefactive/dative), Ki'iche' has only the instrumental (Campbell 2000), whereas Tzotzil only contains the benefactive/dative (Aissen 1987). Among the Mixe-Zoquean languages, Sierra Popoluca exhibits the instrumental and the benefactive applicative (Marlett 1986), whereas Sayultec (Sayula Popoluca) has the associative, the instrumental and the benefactive/dative (Clark 1983).

³ Some notable exceptions are Rude 1985, 1986a, 1986b, and Peterson 1999.

⁴ Within the texts and conversations that are part of my corpus, I have found just a couple of examples that contain the applicative -ja:y? with monovalent verbs.

⁵ The suffix -kùx may cross-reference third-person core arguments with plural reference only.

(a) i. 3rd Plural "S"

xujta:tutük nüxkùxnüwa?
xujta:tu-tük ø= nüx-kùx-nü -w =ja?
 soldier -PL B3(ABS)=go -PL3-already-COMI=3AN
 'The soldiers already left.' {id3/279}

ii. 3rd Plural "PO"

je:p taxyaktijküxi kawa:yutük
 je?+pi tax= yak- tij -küx-i kawa:yu-tük
 there C1(ERG)=CAUS-stay-PL3-INCD horse -PL
 'I am abandoning the horses there.' {ropa/96}

iii. 3rd Plural "A"

ya?mejko ta?e:pküxij tanmü?kutük
 ya?mej =koj tan= ?e:p-küx-i -j
 this_way=just A1(ABS)=see -PL3-INCD-INVD.I

tan= mü?ku -tük
 A1(PSR)=brother-PL
 'My brothers were looking at me in this way.'
 {id3/541}

However, the suffix -küx does not occur obligatorily in clauses that contain a 3rd person plural referent functioning as a core argument. As an illustration consider (b i) to (b iii). In these examples the verbs are not suffixed by -küx even though a third person plural referent is acting as a clausal core argument.

(b) i. 3rd plural "S"

pa?ko ?iwa?ktiyi tzu:kna?awtü?k
 pa?ko ?i= wa?k+ti:y?-i tzu:k-na?w-tük
 many A3(ABS)=walk quick-COMD mouse-AUGM-PL
 'Big mice were walking around.' {aand/6}

ii. 3rd Plural "PO"

?o:kikak ?imini ?ipa:sutükü tapiwkote
 ?o:k+ik=ak ?i= mi:n?-i ?i= pa:su-tük
 dead =AN A3(ABS)=come -COMD A3(PSR)=step -PL

ta= piw+kot-e
 C3(ERG)=gather -INCD
 'The dead person came to gather his steps.'
 {aandc/167}

iii. 3rd Plural "A"

miʔe:panüpak minta:tatük
 mi= ʔe:p-an+ü+pa =k min= ta:ta -tük
 B2 (ABS)=see -INV+IRRI=AN A2 (PSR)=grandson-PL
 'Your grandsons are going to take care of you.'
 {aand/330}

⁶ Olutec does not allow ditransitive constructions whose theme and recipients are both speech act participants, e.g. 'the man gave me to you' or 'the men send you to me.' The theme of ditransitive constructions is always third-person.

⁷ The plural marker for speech act participants, -(V):t, can mark plural agents and recipients, but not themes. The third-person plural, -küx, can mark plural agents, themes and recipients.

⁸ The passive of mo:yʔ, unlike the passive of the rest of the Olutec derived ditransitive verbs, does not trigger inverse marking on passives. This pattern separates mo:yʔ ditransitive constructions from the rest of the ditransitive constructions found in the language.

⁹ The Olutec expression mo:yʔ kwe:nta 'realize, figure out' is a calque from the Spanish expression darse cuenta [give-consideration] which also means 'realize, figure out.'

¹⁰ Within my corpus, the non-applicative construction type shown in (a) was overwhelmingly more frequent than the one in (b). However, speakers offered both types as equivalent constructions in elicitation.

¹¹ Reconstructed as *tuk- 'instrument' for Proto-Mixe (Wichmann 1991).

¹² There are two possible morpheme orders for the passive marker yak- and the instrumental applicative toj- before the verb root. The examples in (113) show the order passive-instrumental-V. Notice that under this order, the theme is marked by the absolutive proclitic. The opposite order: instrumental-passive-V is also attested. When the affixes follow this last order, the theme is marked by the ergative proclitic. In both morphological arrangements, the verb follows the direct pattern. The alternate positions of the instrumental applicative and passive marker do not

carry any apparent semantic differences. The motivations for using one or the other morpheme arrangement have not been determined. The following are examples in which the same verb root occurs with the same affixes in different order. The cases in (a) illustrate the ABS-PASS-INSTR order. The cases in (b) illustrate the ERG-INSTR-PASS order.

- (i) a. $t\ddot{u}kpxi\ yakt\ddot{o}jtzumuk\ sa:ra\ ?asta\ ?ixi\ ?i:tz\ddot{u}m\ddot{u}na?k$
 $t\ddot{u}kpxi\ \emptyset = \underline{yak- toj-} \quad tzum-u \quad =k\ sa:ra\ ?asta$
 rope $B3(ABS)=PASS-INSTR-tie \quad -COMI=AN$ Sara even
 $?ixi\ ?i:tz\ddot{u}m\ddot{u}-nak$
 like pig $-DIM$
 'Sara was tied with a rope, like a little pig.'
- b. $t\ddot{u}kpxi\ ?itojyaktzumuk\ sa:ra\ ?asta\ ?ixi\ ?i:tz\ddot{u}m\ddot{u}na?k$
 $t\ddot{u}kpxi\ ?i = \underline{toj- yak-} \quad tzum-u \quad =k\ sa:ra\ ?asta$
 rope $A3(ERG)=INSTR-PASS-tie \quad -COMI=AN$ Sara even
 $?ixi\ ?i:tz\ddot{u}m\ddot{u}-nak$
 like pig $-DIM$
 'Sara was tied with a rope, like a little pig.'
- (ii) a. $tayaktojpuju\ xapu?n$
 $ta = \underline{yak- toj-} \quad puj \quad -u \quad xapun$
 $B1(ABS)=PASS-INSTR-wash-COMI$ soap
 'I was washed with soap.'
- b. $tantojyakpuju\ xapu?n$
 $tan = \underline{toj- yak-} \quad puj \quad -u \quad xapun$
 $A1(ERG)=INSTR-PASS-wash-COMI$ soap
 'I was washed with soap.'

¹³ Mayan languages that "promote" instruments to core argument status use the applicative construction in similar syntactic environments (Cf. Craig 1978, Dayley 1981, 1985a, 1985b, Smith Stark 1994.)

¹⁴ In addition to the adpositional function, $m\ddot{u}:t$ is also a conjunction. It coordinates nominals and clauses. In (a)-(b), the conjunction $m\ddot{u}:t$ 'and' occurs between the nominals. Both conjuncts together form a phrase functioning as the clausal subject.

(a) ?e:mexü?k ?ikaype mixtu?n mü:t xu?ni
 ?e:m+e =xü=k ?i= kay-pe mixtun mü:t xu?ni
 gristle=EV=AN A3(ERG)=eat-INCI.T cat and dog
 'The cat and the dog eat gristle.' {rspf2/490}

(b) je? ?u:rak ?imini je?kü sansunü mü:tak je?nakü
 je? ?u:ra=k ?i= mi:n?-i je? =k sansun
 that hour =AN A3(ABS)=come -COMD that=AN Sanson

mü:t=ak je? -nak

and =AN that-DIM

'At that time, Sanson and the other little one came.'

{lm2/311}

In (c)-(d), the coordinated nominals function as the direct object of the clause.

(c) je?k chu:chuna?k ?ipa:tnüw ?iweka mü:tak je? xu?ni
 je? =k chu:chu-nak ?i= pa:t-nü -w
 that=AN small -DIM A3(ERG)=find-already-COMI

?i= weka mü:t=ak je? xu?ni

A3(PSR)=frog and =AN that dog

'The little boy already found his little frog and the dog.' {rschl/689}

(d) taxtojtzuki? sewo:ya mü:t tuxu?k ni:wi
 tax= toj+tzuk+?i:y?-i sewo:ya mü:t tuxuk ni:wi
 C1(ERG)=cut -INCD onion and green chili
 'I chop onion and green chili.' {rspf2/558}

In (e) the coordinated nominals function as the Primary Object of a ditransitive clause.

(e) ya?aj ma:xtüki?aj tu:jü ?imini tanko?tzowayuk
 tantükawa:te?k kri:sto mü:tak tantzü?te?k del karmen
 ya?aj ma:xtüki+?aj tu: ?i= mi:n?-I
 this day_before_yesterday rain A3(ABS)=come -COMD

tan= ko?tzow-ay -u =k tan= tükaw -tek
 A1(ERG)=request-APPL1-COMI=AN A1(PSR)=father-PL.SAP

kri:sto mü:t=ak tan= tzü? -tek del karmen
 Christ and =AN A1(PSR)=mother-PL.SAP of the Carmen

'I asked Our Lord Christ and Our Mother Carmen (the Virgin) for the rain that came yesterday.' {rs1/15-16}

When two clauses describe two events in chronological order, the two conjuncts are coordinated by mü:t 'and then'.

- (f) piʔkxikaj ʔi:tzümü tzuʔchi ʔoyamej taxkayantuni mü:t
 taxyakʔonatoye
 piʔkx+ik+ʔaj ʔi:tzümü tzuʔtz+i ʔoyamej
 firm pig meat well
- tax= kay+an+tun-i mü:t tax= yak+ʔona+toy-e
 C1(ERG)=cook -INCD and C1(ERG)=fry -INCD
 'I cook pieces of pork well and then I fried them.'
 {rspf2/517-19}
- (g) tajanu jeʔk majawü mü:t taʔo:knüw
 tan= jan-u jeʔ =k majaw mü:t
 A1(ERG)=lie-COMI that=AN woman and
- ta= ʔo:k-nü -w
 B1(ABS)=die-already-COMI
 'I deceived that woman and then I died.' {olu6/172}
- (h) jeʔk miyaktzaʔmamü mü:tak mixkayan
 jeʔ =k min= yak- tza:mʔ -am mü:t=ak
 that=AN A2(ERG)=CAUS-get_fat-IRRI and =AN
- mix= kay-an
 C2(ERG)=eat-IRRD
 'You are going to make it (the pig) fat and then you are going to eat it.' {rs2/108-9}

¹⁵ Givón (1984:102) refers to such verbs as "verbs with a reciprocal/associative object".

¹⁶ San Miguel Chimalapa Zoque exhibits the postposition goʔ 'because, for' following nouns and purposive clauses (Johnson 2000). The Zoque postposition may be related to the purposive applicative found in Olutec. Thus, this would imply that there was a diachronic point in Olutec where ko: was a postposition that further on was incorporated into the verb, and then reanalyzed as a purposive applicative together with the instrumental toj-.

APPENDIX A

LIST OF ABBREVIATIONS

+	More than one morpheme joined
-	Affix
=	Clitic
1	First person
2	Second person
3	Third person
3AN	Third-person anaphoric pronoun
A	Set A pronominal proclitic (ergative for independent, absolutive for dependent, possessor of nouns)
ABS	Absolutive
AC	Applicative construction
ADJ	Adjectivizer
ADM	Admirative
ADVZR	Adverbializer
AN	Animate clitic
APPL1	Applicative 1 which brings recipients, benefactives, malefactives and locatives into the verb argument structure
APPL2	Applicative 2 which brings benefactives malefactives into the argument structure of intransitive verbs
ASSOC1	Associative applicative 1
ASSOC2	Associative applicative 2
AUGM	Augmentative
AUGM.FEM	Augmentative feminine
B	Set B pronominal proclitic (absolutive for independent)
B.NECK	Body-part prefix: Related to the back of the neck
BACK	Body-part prefix: Related to the back
BE	Denominalizer meaning "be"
BEN	Benefactive
BODY	Body-part prefix: Related to the body
C	Set C pronominal proclitic (ergative for dependent)
CAUS	Causative
CFCT	Counterfactual
CIRC	Body-part prefix: Related to a circumvention

CFCT	Counterfactual
CIRC	Body-part prefix: Related to a circumvention
CLEFT	Clefting particle
COMD	Completive for dependent
COMI	Completive for independent
COND	Conditional
DEF	Definite article
DESID	Desiderative
DIM	Diminutive
DIR	Directional
DNMZR	Denominalizer
DO	Denominalizer meaning "do"
DUB	Dubitative modal (pün)
EP	External possessor
EPC	External possessor construction
ERG	Ergative
EV	Evidential
EXCL	Exclusive
EXCLAM	Exclamatory particle
EYE	Body-part prefix: Related to the eye
FEM	Feminine
HAVE	Denominalizer meaning "have"
HEAD	Body-part prefix: Related to the head
HON	Honorific
IMPR	Imperative
IN	Incorporated Noun
INCD	Incompletive for dependent
INCEPT	Inceptive
INCH	Inchoative denominalizer
INCI.I	Incompletive for independent with intransitive verbs
INCI.T	Incompletive for independent with transitive verbs
INDEF_A	Indefinite agent (in non-promotional passives)
INSTR_	Instrumental applicative
INTENS	Intensifier (/o:k)
INTERJ	Interjection (/u:ta)
INV	Inverse for independent
INV+IRRI	Inverse plus irrealis for independent
INVD.C	Inverse for dependent completive
INVD.I	Inverse for dependent incompletive
INV.LOCAL	Inverse for local constructions
IP	Internal possessor
IRRD	Irrealis for dependent
IRRI	Irrealis for independent
ITER	Iterative
LNKR	Linker for associated motion constructions

LOC	Locative postposition
LOCAL	Local relation (where two SAPs are involved)
MIRAT	Mirative
MASC	Masculine
MOUTH	Body-part prefix: Related to the mouth
N	Noun
NEG	Negative
NF	Non-finite
NI	Noun Incorporation
NMZR	Nominalizer
NMZR INSTR	Nominalizer which derives verbs into instrumental nouns
OPT	Optative
PA	Possessor ascension
PASS	Passive
PCP	Participle
PERDUR	Perdurative
PERF	Perfect
PL	Plural marker on nouns
PL.SAP	Plural for speech act participants
PL1.OP	Plural for first person primary object
PL3	Plural marker on verbs for third-person core arguments
PMZ	Proto-Mixe-Zoque
PO	Primary object
PSM	Possessum
PSR	Possessor
RC	Relative clause
RECP	Reciprocal
REDUP	Reduplication
REPET	Repetitive (again)
RFLX	Reflexive
RN	Relational noun
SAP	Speech act participants (first and second person)
SO	Secondary object
STATZR	stativizer for adjectives
SUBDR	subordinator
TEMP	Temporal particle
V	Verb
VCLF2D	Verbal classifier for two-dimensional objects
VCLF3D	Verbal classifier for three-dimensional objects

APPENDIX B

MEASURING TOPICALITY IN DIRECT AND INVERSE TRANSITIVE
CONSTRUCTIONS

When both nominals are equally ranked on the person and animacy hierarchy, their status as proximates or obviatives, i.e., their topicality, depends entirely on pragmatic factors. These are the contexts with genuine pragmatically controlled alternations, which other studies have characterized as direct/inverse voice alternation (see Givón ed. 1994). The pragmatic definition of direct/inverse alternation is that in direct clauses the actor is more topical than the nonactor, whereas in inverse clauses the nonactor is equally or more topical than the actor. Of course, the question that immediately arises is how to measure the topicality of the participants involved in the clause. One methodology is proposed by Givón (1994). The methodology to measure topicality was applied to Olutec texts and by it, the direct construction is clearly assigned with more topical actors than nonactors, whereas the inverse

construction is clearly assigned with more topical nonactors than actors.

For the quantitative study I used 15 narrative texts that were told by four different speakers, two of them male and two of them female.

I examined clauses with two participants equally ranked on the person and animacy hierarchy. The total of clauses examined is given in Table 12. For comparative reasons I also include the passive of monotransitive clauses.

TABLE 12. Number of Counted Clause Types

a. Two core participants equally ranked on the animacy hierarchy.	
Agentive Direct	105
Agentive Inverse	55
Theme-Location Inverse	38
b. Only one participant	
Passive	37

As an illustration of the type of example I use in counting, consider (1). In the following examples I do not provide the clauses in Olutec which are not relevant for the discussion. In these cases, as in (1 a, b, d) I only provide the translation of the clause.

- (1) a. 'He_i (Mauro) grabbed the rope' {Re/95}
- b. 'Simulating as if he_i was coming towards this way' {Re/96}
- DIR c. ?i=nüm-ay-pe=xü=k je? pi:nik-?unak
A3(ERG)=tell-APPL1-INCI.T=EV=AN that child-DIM
'He_i [PROX:human] tells that little boy_j
[OBV:human]' {Re/97}
- d. ('You_j wait for me_i here, I_i am just going nearby
to defecate' {Re/98-99})
- INV e. ?oya ø=nüm-pa=xü=k jamaj=k
OK B3(ABS)=tell-INCI.I=EV=AN that=AN

ø= mü:-nüx-ü-w-a?
B3(ABS)=ASSOC-go-INV-COMI-NMZR
'"All right" said that one_j [OBV] who took him_i
[PROX] along' {Re/100}
- INV f. jamaj=k ø=yak-nax-ü-w-a? rri:yo
that=AN B3(ABS)=CAUS-cross-INV-COMI-NMZR river
'The one_j [OBV] who took him_i [PROX] across the
river' {Re/101}

Referential Distance and Topic Persistence

The following postulate is assumed: "more topical, (thematically important) referents tend to be more anaphorically accessible ('continuous') and more cataphorically persistent ('recurrent')." (Givón 1994:10)

Referential Distance (RD) measures the anaphoric gap of the referent. The number of clauses separating the presence of the referent from its last occurrence in the preceding

text. The values assigned are: 1 (high topical), 2/3 or > 3' (low-topical)

I also presuppose, following the various studies using the same methodology (Givón ed. 1994), that topical referents such as pronoun or "zero anaphoras" tend to have the RD value of 1. Less-accessible referents tend to have the RD value of >3.

The direct construction is associated with more topical actors than nonactors while the inverse construction is associated with more topical nonactors than actors. Passives have non-topical actors but topical nonactors.

TABLE 13. Referential Distance (RD) of Actors (A)

	<u>Direct</u>	<u>Inverse</u>	<u>Passive</u>
RD of A = 1	<u>86 (82%)</u>	23 (42%)	/ (0%)
RD of A = 2 or 3	9 (8%)	6 (11%)	/ (0%)
RD of A > 3 or no mention	10 (10%)	26 (47%)	37 (100%)
Total	105 (100%)	55 (100%)	37 (100%)

TABLE 14. Referential Distance (RD) of Nonactors (NA)

	<u>Direct</u>	<u>Inverse</u>	<u>Passive</u>
RD of NA = 1	48 (46%)	<u>45 (82%)</u>	<u>33 (90%)</u>
RD of NA = 2 or 3	13 (12%)	6 (11%)	2 (5%)
RD of NA > 3 or no mention	44 (42%)	4 (7%)	2 (5%)
Total	105 (100%)	55 (100%)	37 (100%)

Topic Persistence (TP) measures cataphoric continuity. The number of times the referent is mentioned within the next 10 clauses following a given clause.

I distinguish two major populations for the purpose of comparing my results with the results of other studies (Givón 1994). The first group includes the referents that occur two or less than two times within the next ten clauses. The second group includes the referents that occur three or more than three times within the next ten clauses. Assuming that thematically important referents tend to have TP values >2 it is clear that actors are more topical than nonactors in the direct whereas nonactors are more topical than actors in the inverse and passives.

TABLE 15. Topic Persistence (TP) of Actors

	<u>Direct</u>	<u>Inverse</u>	<u>Passive</u>
Persists 0 to 2 clauses	25 (24%)	19 (35%)	37 (100%)
Persists 3 or more clauses	<u>80 (76%)</u>	36 (65%)	0 (0%)
Total	105 (100%)	55 (100%)	37 (100%)

TABLE 16. Topic Persistence (TP) of Nonactors

	Direct	Inverse	Passive
Persists 0 to 2 clauses	43 (41%)	1 (1%)	10 (27%)
Persists 3 or more clauses	62 (59%)	<u>54 (99%)</u>	<u>27 (73%)</u>
Total	105 (100%)	55 (100%)	37 (100%)

Pronominals (or "zero" anaphora) vs. Nominal expressions

Following Dryer (1994:81), I assume that "pronominals are themselves indicative of topical participants" since the referent conveyed by zero anaphora or a 3rd person pronoun refers to a participant in the preceding discourse. Tables 18 and 19 contrast participants expressed by pronominal or zero anaphora with those expressed by an overt noun phrase. In the direct 89% of the tokens referring to actors are Pro but only 50% of the tokens referring to nonactors are Pro. The opposite tendency is attested in inverse clauses in which 62% of the tokens referring to actors are Pro but 91% of the tokens referring to nonactors are Pro. Thus, these measures confirm that actors are much topical than nonactors in the direct whereas the opposite is true in the inverse.

TABLE 17. Actor as Pronominal (Pro) vs. Actor as Overt Nominal (N)

	<u>Direct</u>	<u>Inverse</u>
A is Pro	<u>93 (89%)</u>	34 (62%)
A is N	12 (11%)	21 (38%)
Total	105 (100%)	55 (100%)

TABLE 18. Nonactor as Pronominal Participant (Pro) vs.
Nonactor as Overt Nominal (N)

	<u>Direct</u>	<u>Inverse</u>
NA is Pro	53 (50%)	<u>50 (91%)</u>
NA is N	52 (50%)	5 (9%)
Total	105 (100%)	55 (100%)

APPENDIX C

MEASURING TOPICALITY IN CONSTRUCTIONS WITH THEME-LOCATION
VERBS, DERIVED MALEFACTIVES AND PASSIVES OF DITRANSITIVES

The same methodology used to measure the topicality of the two participants of transitive clauses was used to measure the topicality of the two participants of clauses with theme-location verbs and other non-agentive bivalent verbs. In the count were included only clauses that had two participants equally ranked on the person and animacy hierarchy. As examples consider (2) and (3).

- (2) ?i=ta:tatük pa?ko ø=?it-ü-nü-w
A3 (PSR)=grandsons man B3 (ABS)=exist-INV-already

-COMI
`And they (the cats) [LOCATION=PROX] had many grandsons
[THEME=OBV].` {AA/ND/30}
- (3) ø=nüm-pa=k ø=?it-u=xü=k
B3 (ABS)=tell-INCI.I=AN B3 (ABS)=exist-COMI=EV=AN

tuk ø=küj-?o:k-ü-w=xü=k ?i=majaw
one B3 (ABS)=APPL2-die-INV-COMI=EV=AN A3 (PSR)=woman
`It is said that there was one whose wife [THEME=OBV]
died (on him) [LOCATION=PROX].` {L1o/66}

The RD measures (Table 19) and the TP measures (Table 20) support the claim that in the construction with theme-location verbs the location outranks the theme in topicality. Table 19 indicates that 84% of the locations are highly topical in contrast with only 34% of the themes.

TABLE 19. Referential Distance of THEME and LOCATION (INVERSE)

	<u>THEME</u>	<u>LOCATION</u>
RD= 1	13 (34%)	<u>32 (84%)</u>
RD= 2 or 3	3 (8%)	5 (13%)
RD > 3 or no mention	22 (58%)	1 (3%)
Total	38 (100%)	38 (100%)

The same tendency is attested using the TP measures. Most of the themes (71%) are low in topicality whereas most of the locations (87%) are high in topicality.

TABLE 20. Persistence of THEME and LOCATION (INVERSE)

	<u>THEME</u>	<u>LOCATION</u>
Persists 0 to 2 clauses	<u>27 (71%)</u>	5 (13%)
Persists 3 or more clauses	11 (29%)	<u>33 (87%)</u>
Total	38 (100%)	38 (100%)

In clauses with theme-location verbs the great majority of the locations (71%) are expressed using Pro (zero anaphora or pronouns). In contrast, the great majority of the themes (79%) are expressed using overt nominals. These two tendencies clearly show that the location outranks the theme in topicality within constructions in which both the theme and the location are core arguments.

TABLE 21. THEME and LOCATION as Pronominal Participants (Pro) vs. THEME and LOCATION as Overt N

	<u>THEME</u>	<u>LOCATION</u>
Pro	8 (21%)	<u>27 (71%)</u>
N	<u>30 (79%)</u>	11 (29%)
Total	38 (100%)	38 (100%)

APPENDIX D

TWO TEXTS AND A CONVERSATION

The following two stories were told by Antonio Asistente in July 24, 1995. Antonio Asistente also helped me when I transcribed them in July 1996. He did not offer titles for them.

Text 1

ʔituxüʔk yaʔaj tuʔk jaytzüʔnaʔk mü:tak jama:k ʔimü:taʔaʔw
 ø= ʔit -u =xü=k yaʔaj tuk jaytzüʔ -nak
 B3(ABS)=exist-COMI=EV=AN this one old_lady-DIM

mü:t=ak jamaj=k ʔi= mü:+taʔw
 and =AN that =AN A3(PSR)=neighbor

1. There was a little old lady and her neighbor.

jama:k ʔimü:taʔawü nüxuxüʔk tatükwiti jaytzüʔnaʔk
 jamaj=k ʔi= mü:+taʔw ø= nüx-u =xü=k
 that =AN A3(PSR)=neighbor B3(ABS)=go -COMI=EV=AN

ta= tükwit-i jaytzüʔ -nak
 C3(ERG)=visit -INCD old_lady-DIM

2. That neighbor of the old lady went to visit her.

mü:t ʔijamatik jemü ʔitükmü jeʔk jaytzüʔnakü
 mü:t ʔi= jamat -i =k jeʔ+mü ʔi= tük -mü
 and A3(ABS)=arrive-COMD=AN there A3(PSR)=house-LOC

jeʔ =k jaytzüʔ -nak
 that=AN old_lady-DIM

3. And when he arrived there, to the old lady's home.

taʔe:pikü ʔiyukʔe:pikü
 ta= ʔe:p-i =k ʔi= yuk-ʔe:p-i =k
 C3(ERG)=see -COMD=AN A3(ABS)=UP- see -COMD=AN

4. When he saw that. 5. When he looked upwards.

jemak tachikxi jaytzü?na?k jamaj ja?xü lonja
 je?+mü=ak ta= chikx-i jaytzü? -nak jamaj ja?=xü
 there =AN C3(ERG)=have -COMD old_lady-DIM that DEF=EV

lonja
 strip

6. The old lady had that strip of meat.

jemak tachikxi yukpi jaytzü?na?k je? lonja
 je?+mü=ak ta= chikx-i yuk -pi jaytzü? -nak je?
 there =AN C3(ERG)=have-COMD upwards-LOC old_lady-DIM that

lonja
 strip

7. That little old lady had that strip of meat up there.

?ijamatik ya?k ?imü:ta?awü ta?e:pi ja?
 ?i= jamat -i =k ya? =ak ?i= mü:+ta?aw
 A3(ABS)=arrive-COMD=AN this=AN A3(PSR)=neighbor

ta= ?e:p-i ja?
 C3(ERG)=see -COMD 3AN

8. When her neighbor arrived, he saw it.

nümpaxükü
 ø= nüm-pa =xü=k
 B3(ABS)=say-INCI.I=EV=AN

9. He said:

ka:to:ka?amak ja? pi:nak lonja
 ka:=to:k-a? -am =ak ja? pi:nak lonja
 NEG=sell-APPL1-IRRI=INV.LOCAL DEF a_little strip

10. "Aren't you going to sell me a little bit of meat?"

nümpaxü?k jaytzü?na?k ?oya
 ø= nüm-pa =xü=k jaytzü? -nak ?oya
 B3(ABS)=say-INCI.I=EV=AN old_lady-DIM OK

11. The little lady says: "OK."

nümpaxü ja? taxto:ka?am
 ø= nüm-pa =xü ja? tax= to:k-a? -am
 B3(ABS)=say-INCI.I=EV 3AN C1(LOCAL)=sell-APPL1-IRRI

12. She says: "I will sell it to you."

je? ?u:ra tatzuktuki tu?k peda:so
 je? ?u:ra ta= tzuk-tuk -i tuk peda:su
 that hour C3(ERG)=cut -DIR:across-COMD one piece
 13. At that time she cut a piece.

je? ?u:ra tamü:yü?ki
 je? ?u:ra ta= mü:- yü?k-i
 that hour C3(ERG)=ASSOC1-exit-INCD
 14. At that time, he took it outside, carrying it.

?ijamatik ?itükmü
 ?i= jamat -i =k ?i= tük -mü
 A3(ABS)=arrive-COMD=AN A3(PSR)=house-LOC
 15. He arrived at his house.

tanüme?xükü ?imajawü ?iyaj ya?aj lonjana?k tamü:minu
 ta= nüm -a? -i =xü=k ?i= majaw
 C3(ERG)=tell-APPL1-COMD=EV=AN A3(PSR)=woman

?iyaj ya?aj lonja-nak tan= mü:- mi:n?-u
 here this strip-DIM A1(ERG)=ASSOC1-come -COMI
 16. He told his wife: "Here, I brought this little
 strip of meat."

nümpaxük ?iyofwe ja?k tajuyayu jaytzü?na?k
 ø= nüm-pa =xü=k ?i= yofwe
 B3(ABS)=say-INCI.I=EV=AN A3(PSR)=husband

ja?k tan= juy-ay -u jaytzü? -nak
 DEF=AN A1(ERG)=buy-APPL1-COMI old_lady-DIM
 17. Her husband says: "I bought it from the little old
 lady."

nümpaxü ja?
 ø= nüm-pa =xü ja?
 B3(ABS)=say-INCI.I=EV 3AN
 18. He says.

nümpaxü?k ?imajaw ?oya
 ø= nüm-pa =xü=k ?i= majaw ?oya
 B3(ABS)=say-INCI.I=EV=AN A3(PSR)=woman OK
 19. His wife says: "OK."

nümpaxü ja?
 ø= nüm-pa =xü ja?
 B3 (ABS)=say-INCI.I=EV 3AN
 20. She says.

jama:k ?ijuyu?a?k lonjanakü ?ika:wini:pe ja?k
 jamaj=k ?i= juy-u -?a? =k lonja-nak
 that =AN A3(ERG)=buy-COMI-NMZR=AN strip-DIM

?i= ka:=wini:y?-pe ja?=k
 A3(ERG)=NEG=know -INCI.T 3AN=AN
 21. The one who bought the little strip of meat didn't know.

?ika:wini:pe ja?k
 ?i= ka:=wini:y?-pe ja?=k
 A3(ERG)=NEG=know -INCI.T 3AN=AN
 22. He didn't know.

?ika:wini:yu jama:k yo?jwa
 ?i= ka:=wini:y?-u jamaj=k yo?jwa
 A3(ERG)=NEG=know -COMI that =AN man
 23. That man didn't know.

je? ?u:ra tyakü:wi tatzayi ?imajaw
 je? ?u:ra ta= yak- kü:w?-i
 that hour C3(ERG)=CAUS-cook -COMD

ta= tza:y?-i ?i= majaw
 C3(ERG)=grill -COMD A3(PSR)=woman
 24. At that time his wife cooked it, and grilled it.

tatzayi ?imajaw je? lonjana?k
 ta= tza:y?-i ?i= majaw je? lonja-nak
 C3(ERG)=grill -COMD A3(PSR)=woman that strip-DIM
 25. His wife grilled that little strip.

?ikaykuxuxü ja?
 ?i= kay-küx-u =xü ja?
 A3(ERG)=eat-PL3-COMI=EV 3AN
 26. They ate it.

jeʔk ʔijuyuʔaʔ lonjanaʔk despwesxüʔü ʔinükxpowixükojaʔ
tatükwiti jaytzüʔnaʔk

jeʔ =k ʔi= juy-u -ʔaʔ lonja-nak despwes=xü
that=AN A3(ERG)=buy-COMI-NMZR strip-DIM after =EV

ʔi= nüx-pow -i =xü=koj =jaʔ ta= tük+wit-i
A3(ABS)=go -again-COMD=EV=just=3AN C3(ERG)=visit -INCD

jaytzüʔ -nak
old_lady-DIM

27. After that, the one who bought the little strip
went to visit the little old lady.

nijaʔmejkoj ʔijamatik ʔitükmü
ni+jaʔmej =koj ʔi= jamat -i =k ʔi= tük -mü
in_that_way=just A3(ABS)=arrive-COMD=AN A3(PSR)=house-LOC
28. He arrived at her house just like that.

ʔiyukʔe:pe tikü
ʔi= yuk-ʔe:p-pe ti =k
A3(ERG)=UP- see -INCI.T thing=AN

29. He looked up towards the thing.

jemxü ʔiʔiti ja:tuk peda:so
jeʔ+mü=xü ʔi= ʔit -i ja:+tuk peda:su
there =EV A3(ABS)=exist-INCD another piece
30. There was another piece there.

pero jünjemxüʔk tachikxi jeʔ lonjanaʔk
pero jün -jem=xü=k ta= chikx-i jeʔ lonja-nak
but fire-LOC=EV=AN C3(ERG)=have -INCD that strip-DIM
31. But she had that little strip on the fire.

pero yukpi jem ʔipete joko
pero yuk -pi jeʔ+mü ʔi= pet -e joko
but upwards-LOC there A3(ABS)=ascend-INCD smoke
32. But the smoke was going upwards.

jem jumü ʔipete joko
jeʔ+mü jumü ʔi= pet -e joko
there where A3(ABS)=ascend-INCD smoke
33. And there, where the smoke was going upwards,

jemak tachikxi je? lonjana?k je? jaytzü?na?k
 je?+mü=ak ta= chikx-i je? lonja-nak je?
 there =AN C3(ERG)=have_-INCD that strip-DIM that

jaytzü? -nak
 old_lady-DIM

34. it was there where the little lady had the little strip.

je? ?u:raxü?k ?inümpowikoj
 je? ?u:ra=xü=k ?i= nüm-pow -i =koj
 that hour =EV=AN A3(ABS)=say-again-COMD=just
 35. At that time he said again.

tanüme? jaytzü?na?k taxka:to:kama?k ja? ja:tuk peda:so
 lonjanakü

ta= nüm -a? -e jaytzü? -nak
 C3(ERG)=tell-APPL1-INCD old_lady-DIM

tax= ka:=to:k-am -ak
 C1(LOCAL)=NEG=sell-IRRI-INV.LOCAL

ja? ja:+tuk peda:su lonja-nak
 DEF another piece strip-DIM

36. He told the little old lady: "Aren't you going to sell me another piece of meat?"

taka:ja?itüp tu?k peda:so ja?koj
 ta= ka:=ja:= ?it -ü -pa tuk peda:su ja?=koj
 B1(ABS)=NEG=MIRAT=exist-INV-INCI.I one piece DEF=just
 37. "I don't have anymore, I have a piece only.

taka:ja?itüp para ja? ja:koje? tanwachi xtu:ta?a?n
 ta= ka:=ja:= ?it -ü -pa para ja? ja:+koj=je?
 B1(ABS)=NEG=MIRAT=exist-INV-INCI.I for DEF just =CLEFT

tan= wachi tax= tu:t?-a? -a?n
 A1(PSR)=pimple C1(ERG)=put -APPL1-IRRD

38. I don't have anymore to put on my pimple.

je?je? tantojni:jüspe ya?aj lonjana?k
 je? =je? tan= toj- ni: -jütz -pe ya?aj lonja-nak
 that=CLEFT A1(ERG)=INSTR-BODY-scrape-INCI.T this strip-DIM
 39. It is with this little strip that I rub it (my pimple),

mü:t taka:ja:ʔitüp jeʔkoj taxto:kayuʔa?
 mü:t ta= ka:=ja:= ʔit -ü -pa jeʔ =koj
 and B1(ABS)=NEG=MIRAT=exist-INV-INCI.I that=just

tax= to:k-ay -u -ʔa?
 C1(LOCAL)=sell-APPL1-COMI-NMZR
 40. and I don't have anymore, only what I sold to you.

porke tataxto:kaypa taka:ja:ʔita:nüp tantojni:jützütza:me?
 tanküʔxta

porke ta tax= to:k-ay -pa
 because COND C1(LOCAL)=sell-APPL1-INCI.I

ta= ka:=ja:= ʔit -an+ü+pa
 B1(ABS)=NEG=MIRAT=exist-INV+IRRI

tan= toj- ni:- jützütz-am =jeʔ tan= küʔx+ta
 A1(ERG)=INSTR-BODY-massage-IRRI=that A1(PSR)=foot
 41. "Because if I sell it to you, I won't have anything
 to use to rub my foot."

mü:tak jeʔkü jaytzüʔnakü jaʔxü teʔk ʔitüp tuʔk wachi
 ʔiküʔxtaʔm

mü:t=ak jeʔ =k jaytzüʔ -nak jaʔ=xü tek
 and =AN that=AN old_lady-DIM 3AN=EV indeed

∅= ʔit -ü -pa tuk wachi ʔi= küʔx+ta-mü
 B3(ABS)=exist-INV-INCI.I one pimple A3(PSR)=foot -LOC
 42. And it is indeed the case that that little lady has
 one pimple on her foot.'

jitipüjnaʔxüʔk ʔiküʔxta jaytzüʔnaʔk
 ∅= jiti+püj-naʔ =xü=k ʔi= küʔx+ta jaytzüʔ -nak
 B3(ABS)=burst -STATZR=EV=AN A3(PSR)=foot old_lady-DIM
 'The little lady's foot was swollen.'

jeʔxü teʔk ʔitojni:ja:xpe
 jeʔ =xü tek ʔi= toj- ni:- ja:x-pe
 that=EV indeed A3(ABS)=INSTR-BODY-rub -INCI.T
 43. She indeed uses that (piece of meat) to rub it (her
 foot).

?itójni:mü?spe je? lonjana?k je?xü?k ?ikü?xta
 ?i= toj- ni:- mü?tz-pe je? lonja-nak je? =xü=k
 A3(ERG)=INSTR-BODY-dunk -INCI.T that strip-DIM that=EV=AN

?i= kü?x+ta
 A3(PSR)=foot

44. She uses that little strip of meat to clean her foot.

?itójtzoyi:pe tej
 ?i= toj- tzoy+?i:y?-pe tej
 A3(ERG)=INSTR-cure -INCI.T ADM

45. She uses it (the strip) to cure it (her foot).

?itójtzoyi:pe tej
 ?i= toj- tzoy+?i:y?-pe tej
 A3(ERG)=INSTR-cure -INCI.T ADM

46. She uses it to cure it.

mü:t je? ?u:raxü?k ?inümi je?k yo?jwa
 mü:t je? ?u:ra=xü=k ?i= nüm-i je? =k yo?jwa
 and that hour =EV=AN A3(ABS)=say-COMD that=AN man

47. And at that time the man says:

je?pek taxto:kayu?a?a?k
 je? =pek tax= to:k-ay -u -?a? -ak
 that=indeed C1(LOCAL)=sell-APPL1-COMI-NMZR-INV.LOCAL

48. "Is that the one that you sold to me."

je? peke? je?je? tantojni:ju:mpe
 je? pek =je? je? =je? tan= toj- ni:- ju:m-pe
 that indeed=CLEFT that=CLEFT A1(ERG)=INSTR-BODY-rub -INCI.T
 49. That is the one. That is what I use to rub it (my foot).

je?je? tantojtzoyi:pe
 je? =je? tan= toj- tzoy+?i:y?-pe
 that=CLEFT A1(ERG)=INSTR-cure -INCI.T

50. That is what I use to cure it.

te?ej pe? je? peke? taxtojtzoyi:pa
 te?ej pe? je? pek =je? tax= toj- tzoy+?i:y?-pa
 today indeed that indeed=CLEFT C1(LOCAL)=INSTR-cure -INCI.I

51. And nowadays it is with that that I cure you.

jeʔ tantojtzoyi:pe
 jeʔ tan= toj- tzoy+ʔi:yʔ-pe
 that A1(ERG)=INSTR-cure -INCI.T
 52. I use that to cure it (my foot).

tanitzoyiyüp mü:t jeʔ numpaxükü
 ta= ni- tzoy+ʔi:yʔ-ü -pa mü:t jeʔ
 B1(ABS)=RFLX-cure -INV-INCI.I with that

∅= nüm-pa =xü=k
 B3(ABS)=say-INCI.I=EV=AN
 53. I cure myself with it, she says.

jeʔk ʔikayuʔaʔ lonja jeʔ ʔu:rak ʔipoyi
 jeʔ =k ʔi= kay-u -ʔaʔ lonja jeʔ ʔu:ra=k
 that=AN A3(ERG)=eat-COMI-NMZR strip that hour =AN

ʔi= po:yʔ -i
 A3(ABS)=escape-COMD
 54. The one who ate the strip of meat left at that time.

jeʔ ʔu:rak ʔipoyi
 jeʔ ʔu:ra=k ʔi= po:yʔ -i
 that hour =AN A3(ABS)=escape-COMD
 55. At that time he left.

ʔika:ja:mü:kapxuk jaytzüʔnaʔk
 ʔi= ka:=ja:= mü:- kapx-u =k jaytzüʔ -nak
 A3(ABS)=NEG=MIRAT=ASSOC1-talk-COMI=AN old_lady-DIM
 56. He didn't talk with the old lady anymore.

jeʔ ʔu:rak ʔipoyi
 jeʔ ʔu:ra=k ʔi= po:yʔ -i
 that hour =AN A3(ABS)=escape-COMD
 57. At that time he left.

ʔinüxne:k ʔitükmü
 ʔi= nüx-nü -i =k ʔi= tük -mü
 A3(ABS)=go -already-COMD=AN A3(PSR)=house-LOC
 58. He went to his house.

jeʔ ʔu:rak ʔijamati numpaxükü
 jeʔ ʔu:ra=k ʔi= jamat -i ∅= nüm-pa =xü=k
 that hour =AN A3(ABS)=arrive-INCD B3(ABS)=say-INCI.I=EV=AN
 59. At the time he arrived, he says.

tanüme? ?imajaw
 ta= nüm -a? -e ?i= majaw
 C3(ERG)=tell-APPL1-INCD A3(PSR)=woman

60. He told that to his wife.

nümpaxükü mika:ja:to:ka?xüwak je? lonja jaytzü?nakü
 ø= nüm-pa =xü=k mi= ka:=ja:= to:k-a?x -ü -w
 =ak

B3(ABS)=say-INCI.I=EV=AN B2(ABS)=NEG=MIRAT=sell-APPL1-INV-COMI=AN

je? lonja jaytzü? -nak
 that strip old lady-DIM

61. She says: "Didn't the little old lady sell that strip of meat to you?"

ka:ja:?itpa lonja
 ø= ka:=ja:= ?it -pa lonja

B3(ABS)=NEG=MIRAT=exist-INCI.I strip

62. "There is no strip of meat left."

ka:ja:?itpa yam niti:
 ø= ka:=ja:= ?it -pa ya?+mü ni+ti:

B3(ABS)=NEG=MIRAT=exist-INCI.I here nothing

63. "There isn't anything."

je?xü tej je? ?itojni:ju:mpe ?ikü?xta
 je? =xü tej je? ?i= toj- ni:- ju:m-pe ?i= kü?x+ta
 that=EV ADM that A3(ERG)=INSTR-BODY-rub-INCI.T A3(PSR)=foot

64. "It is indeed what she uses to rub her foot."

?itüp wachi
 ø= ?it -ü -pa wachi
 B3(ABS)=exist-INV-INCI.I pimple

65. "She has pimples."

je?xü?k tej pa:ke? ?itojni:mü?spe
 je? =xü=k tej pa:k=je? ?i= toj- ni:- mü?tz-pe
 that=EV=AN ADM 3AN =CLEFT A3(ERG)=INSTR-BODY-dunk -INCI.T

66. "That is what she used to clean it (her foot)."

mü:t ja?mej xkayi:t
 mü:t ja?mej tax= kay-i -:t
 and in that way C1(ERG)=eat-COMD-PL.SAP

67. "And we ate it in that way."

tejpe?k tejpekü pu:rga tan?u:kame:t tzoyü, para
tatojna:pitzüma?n ya?aj tankayu?a:t

te?ej=pek te?ej=pek pu:rga tan= ?u:k -am -e:t
now=indeed now=indeed purgative A1(ERG)=drink-IRRI-PL.SAP

tzoy para ta= toj- na:w -pitzüm -a?n ya?aj
medicine in_order C3(ERG)=INSTR-throw-DIR:out-IRRD this

tan= kay-u -?a? -:t
A1(ERG)=eat-COMI-NMZR-PL.SAP

68. "And now indeed, and now indeed, we are going to
drink purgative, medicine so that it takes out what we
ate."

porke ka:?oya xwinya?ne:t ma:s despwe?s
porke ø= ka:?oya tax= wini:y?-a?n -e:t ma:s
because B3(ABS)=NEG=good C1(ERG)=feel -IRRD-PL.SAP more

despwes
after

69. "Because we are going to feel bad later on."

jo:ypa jo:ypa tajpa taxwinya?ne:t despwe?s
ø= jo:y-pa ø= jo:y-pa ø= taj-pa
B3(ABS)=beat-INCI.I B3(ABS)=beat-INCI.I B3(ABS)=dig-INCI.I

tax= wini:y?-a?n -e:t despwes
C1(ERG)=feel -IRRD-PL.SAP after

70. "We are going to feel very very sick and nauseous
later on."

ta?u:kame:t tzoyü
tan= ?u:k -am -e:t tzoy
A1(ERG)=drink-IRRI-PL.SAP medicine

71. "We are going to drink the medicine."

taʔu:küxixüʔk tzoyü niʔjaʔmej chaʔaj ʔikayküxwaʔ jeʔ
lonjanaʔk

ta= ʔu:k -küx-i =xü=k tzoy
C3(ERG)=drink-PL3-COMD=EV=AN medicine

niʔjaʔmej chaʔaj ʔi= kay-küx-w -ʔaʔ jeʔ lonja-nak
all which A3(ERG)=eat-PL3-COMI-NMZR that strip-DIM
72. They drank the medicine, all of them who ate the
little strip of meat.

taʔu:küxik tzoyü
ta= ʔu:k -küx-i =k tzoy
C3(ERG)=drink-PL3-COMD=AN medicine
73. They drank the medicine.

nümpaxüʔk ʔoya taʔitnone:t porke taʔu:kuʔaʔa:t tzoyü pu:rga
ø= nümpa =xü=k ʔoya
B3(ABS)=say-INCI.I=EV=AN OK

tan= ʔit -nü -an -e:t
A1(ABS)=exist-already-IRR-PL.SAP

porke tan= ʔu:k -u -ʔaʔ -a:t tzoy pu:rga
because A1(ERG)=drink-COMI-PERF-PL.SAP medicine purgative
74. And they say: "We are going to be OK because we
have drunk the medicine, the purgative."

jenkoj yaʔaj küxwaʔ
jeʔ+mü=koj yaʔaj ø= küx -w -ʔaʔ
there =just this B3(ABS)=finish-COMI-PERF
75. This has finished just there.

Text 2

tanümpowamkoj ja:tu?k
 tan= nüm-pow -am =koj ja:- tuk
 A1(ERG)=say-again-IRRI=just other-one
 1. I am going to say another one.

ya?aj jatu?a?
 ya?aj ø= jat -u -?a?
 this B3(ABS)=happen-COMI-NMZR
 2. This is what happened.

?ituxük tu?k majaw
 ø= ?it -u =xü=k tuk majaw
 B3(ABS)=exist-COMI=EV=AN one woman
 3. There was a woman.

?imü:nikü?pa:tüwxük ja? mü:yü?w mü:t je?k majawü
 ?i= mü:- ni- kü?+pa:t -ü -w =xü=k ja? mü:yüw
 A3(ERG)=ASSOC1-RECP-get_marry-INV-COMI=EV=AN DEF thunder

mü:t je? =k majaw
 with that=AN woman
 4. The thunder and that woman got married.

?al tamü:nikü?pa:tiyak je?k mü:yüwü ka:jawimpituk ?itükmü
 tatükwita?n ?itzü? ?itükaw

?al ta= mü:- ni- kü?+pa:t -i -y =ak je? =k
 when C3(ERG)=ASSOC1-RECP-get_marry-COMD-INVD.C=AN that=AN

mü:yüw ø= ka:-ja= wimpit-u =k ?i= tük -mü
 thunder B3(ABS)=NEG-MIRAT=return-COMI=AN A3(PSR)=house-LOC

ta= tük+wit-a?n ?i= tzü? ?i= tükaw
 C3(ERG)=visit -IRRD A3(PSR)=mother A3(PSR)=father
 5. When she got married with the thunder, she didn't
 come back to her house to visit her mother and her
 father.

ʔal ʔiniküʔpa:tiyakü ʔisemenükxne jaʔ
 ʔal ʔi= ni- küʔ+pa:t -i -y =ak
 when A3(ABS)=RECP-get_marry-COMD-INVD.C=AN

ʔi= seme-nükx-nü -i jaʔ
 A3(ABS)=very-go -already-COMD 3AN

6. Once she got married with him, she left for good.

nümpaxüʔk ʔitzüʔ ka:naʔkxiʔk yaʔaj ʔimiʔn taʔunaʔk
 ø= nüm-pa =xü=k ʔi= tzüʔ
 B3(ABS)=say-INCI.I=EV=AN A3(PSR)=mother

ka:+naʔkxi=k yaʔaj ʔi= mi:nʔ-i tan= ʔunak
 never =AN this A3(ABS)=come -INCD A1(PSR)=offspring

7. Her mother says: "My daughter never comes.

nükxa:mak xkepe
 ø= nükx-am =ak tax= kep -e
 B3(ABS)=go -IRRI=AN C1(ERG)=look_for-INCD

8. I am going to look for her."

ʔinükxixüʔk jama:k ʔitzüʔ
 ʔi= nükx-i =xü=k jamaj=k ʔi= tzüʔ
 A3(ABS)=go -COMD=EV=AN that =AN A3(PSR)=mother

9. Her mother left.

ʔitzüʔ ʔikepej mü:t jamatuxüʔk jumü ʔitükju:niʔ jeʔk
 ʔiʔunaʔk wepxüʔk ʔitükmü jeʔk mü:yüʔw

ʔi= tzüʔ ʔi= kep -e -j mü:t
 A3(PSR)=mother A3(ABS)=look_for-INCD-INVD.I and

ø= jamat -u =xü=k jumü ʔi= tük+ju:n+ni:yʔ-i
 B3(ABS)=arrive-COMI=EV=AN where A3(ABS)=live -INCD

jeʔ =k ʔi= ʔunak wew+pi=xü=k ʔi= tük -mü
 that=AN A3(PSR)=offspring there=EV=AN A3(PSR)=house-LOC

jeʔ =k mü:yüw
 that=AN thunder

10. Her mother was looking for her and arrived where
 her daughter was living, there, at the thunder's house.

mü:t nümpaxükü jumej mimini
 mü:t ø= nüm-pa =xü=k jumej min= mi:n?-i
 and B3 (ABS)=say-INCI.I=EV=AN how A2 (ABS)=come -COMD
 11. And she (the daughter) says: "How did you come?"

jumej mimini
 jumej min= mi:n?-i
 how A2 (ABS)=come -COMD
 12. "How did you come?"

ka:pün ya:p ya?tpa
 ka:=pün ya?+pi ø= ya?t -pa
 NEG=who here B3 (ABS)=arrive_here-INCI.I
 13. Nobody comes here."

nümpaxükü?k ?itzü?ü minu x?e:pe porke ka:na?kxi nukxi x?e:pe?k
 ø= nüm-pa =xü=k ?i= tzü? ø= mi:n?-u
 B3 (ABS)=say-INCI.I=EV=AN A3 (PSR)=mother B3 (ABS)=come -COMI

tax= ?e:p-e porke ka:na?kxi nukx-i
 C1 (LOCAL)=see -INCD because NEG=when go -INCD

tax= ?e:p-e -k
 C1 (LOCAL)=see -INCD-INV.LOCAL
 14. Her mother says: "I came to see you because you never go to see me."

nümpaxükü minu x?e:pe jupa?k ya?aj mi?awo?k mi?itüno
 ø= nüm-pa =xü=k ø= mi:n?-u
 B3 (ABS)=say-INCI.I=EV=AN B3 (ABS)=come-COMI

tax= ?e:p-e jupa? =k ya?aj min= ?awok
 C1 (LOCAL)=see-INCD how_many=AN this A2 (PSR)=offspring

min= ?it -nü -e -j
 A2 (ABS)=exist-already-INCD-INV.D.I
 15. She says: "I came to see how many children you have."

jupa?k ya?aj tanta:tawo?k mi?itij
 jupa? =k ya?aj tan= ta:ta -wok
 how_many=AN this A1 (PSR)=grandson-DIM

min= ?it -i -j
 A2 (ABS)=exist-INCD-INV.D.I
 16. "How many of my grandchildren do you have?"

nümpaxü?k ?i?unakü ?itnüpak maktaxko
 ø= nüm-pa =xü=k ?i= ?unak
 B3 (ABS)=say-INCI.I=EV=AN A3 (PSR)=offspring

ø= ?it -nü -pa =k maktaxko
 B3 (ABS)=exist-already-INCI.I=AN four
 17. Her daughter says: "There are already four"

jumük ?i?iti
 jumü =k ?i= ?it -i
 where=AN A3 (ABS)=exist-INCD
 18. "Where are they?"

ji?mak ?itpa yu:ki?k
 ji?maj=k ø= ?it -pa yu:k-ik
 there =AN B3 (ABS)=exist-INCI.I hide-PCP
 19. "They are hidden there."

nümpaxükü ta?e:pi?o:kpek tanta:tawo?k
 ø= nüm-pa =xü=k tan= ?e:p-i -?o:k -pe =k
 B3 (ABS)=say-INCI.I=EV=AN A1 (ERG)=see -NMZR-DESID-INCI.T=AN

tan= ta:ta -wok
 A1 (PSR)=grandson-DIM
 20. She says: "I want to see my grandsons."

ka:jatpa
 ø= ka:=jat -pa
 B3 (ABS)=NEG=be_able-INCI.I
 21. "It is not possible."

nümpaxü?k ?itzü? je?k mü:yüwawo?k
 ø= nüm-pa =xü=k ?i= tzü?
 B3 (ABS)=say-INCI.I=EV=AN A3 (PSR)=mother

je? =k mü:yüw -?awok
 that=AN thunder-DIM
 22. Their mother says: "They are little thunders."

mü:t nümpaxükü nüxpa xtu?ti ya?aj kaya?n wep kama?p
 mü:t ø= nüm-pa =xü=k nüx-pa tax= tu:t?-i
 and B3(ABS)=say-INCI.I=EV=AN go -INCI.I C1(ERG)=put -INCD

ya?aj kay+an wew+pi kama -pi
 this food there corn field-LOC

23. And she says: "I am going to take this food there,
 to the corn field."

nüxpak xtu:te? porke kanyo?oma? ?ixküjpu:t ko:xo?aj
 nüx-pa =k tax= tu:t?-a? -i porke
 go -INCI.I=AN C1(ERG)=put -APPL1-INCD because

ø= kay-nü -am =ja? ?ixküj+pu:t ko:xo-?aj
 B3(ABS)=eat-already-IRRI=3AN middle day -NMZR

24. "I am going to take it to him (my husband) because
 he is going to eat at noon."

?oyaj nümpaxükü?k ?itzü?

?oyaj ø= nüm-pa =xü=k ?i= tzü?
 OK B3(ABS)=say-INCI.I=EV=AN A3(PSR)=mother

25. "All right," her mother says.

je? ?u:ra tapiti nü:nü

je? ?u:ra ta= pit -i nü:n
 that hour C3(ERG)=wrap-COMD tortilla

26. At that time she wrapped the tortillas.

kaya?n tatu:ti wep tra:stejotpi

kay+an ta= tu:t?-i wew+pi tra:ste -jot -pi
 food C3(ERG)=put -COMD there container-inside-LOC

27. She put the food inside the container

?inüxixükü?k tatu:te?k nü:nü ?iyo?we porke kama?pak ?i?iti

?i= nüx-i =xü=k ta= tu:t?-a? -i =k
 A3(ABS)=go -COMD=EV=AN C3(ERG)=put -APPL1-INCD=AN

nü:n ?i= yo?we porke kama -pi =ak
 tortilla A3(PSR)=husband because corn_field-LOC=AN

?i= ?it -i
 A3(ABS)=exist-INCD

28. She went to take the tortillas to her husband
 because he was in the corn field.

je:pak tani?pi kama
 je?+pi=ak ta= ni:p? -i kama
 there =AN C3(ERG)=plant_corn-INCD corn_field
 29. He grows corn.

takü?ka?tze ni?ti?k
 ta= kü?- ka?tz-e ni?tik
 C3(ERG)=hand-cut -INCD everything
 30. He clears everything.

?itumpexük kama ?iyo?we je?k majaw
 ?i= tun-pe =xü=k kama ?i= yo?we je? =k
 A3(ERG)=do -INCI.T=EV=AN corn_field A3(PSR)=husband that=AN

majaw
 woman

31. That woman's husband does work in the corn field.

mü:tak je?k majawü jama:k ?itzü? nümpaxükü jumük ya?k ?i?iti
 tanta:tawokü
 mü:t=ak je? =k majaw jamaj=k ?i= tzü?
 and =AN that=AN woman that =AN A3(PSR)=mother

ø= nüm-pa =xü=k jumü =k ya? =ak
 B3(ABS)=say-INCI.I=EV=AN where=AN this=AN

?i= ?it -i tan= ta:ta -wok
 A3(ABS)=exist-INCD A1(PSR)=grandson-DIM

32. And that woman's mother says: "Where are my little grandsons."

nümpakü tyaknüma?xüwü yamxü?k ?i?iti yu:ki?k
 ø= nüm-pa =k ta= yak- nüm -a?x -ü -w
 B3(ABS)=say-INCI.I=AN B1(ABS)=PASS-tell-APPL1-INV-COMI

ya?+mü=xü=k ?i= ?it -i yu:k-ik
 here =EV=AN A3(ABS)=exist-INCD hide-PCP

33. She says: "I was told that they are hidden here."

je? ?u:raxükü tyak?a:wa:tzi jumük ?i?iti
 je? ?u:ra=xü=k ta= yak- ?aw+wa:tz?-i jumü =k
 that hour =EV=AN C3(ERG)=CAUS-open -COMD where=AN

?i= ?it -i
 A3(ABS)=exist-INCD

34. At that time, she opened up where they were.

tyakʔa:wa:tzi jamaxü ʔawtzoʔ
 ta= yak- ʔaw+wa:tzʔ-i jamaj=xü ʔawtzoʔ
 C3(ERG)=CAUS-open -COMD that =EV door
 35. She opened that door.

jeʔ ʔu:raxüʔk ʔiniyopopitzünküxi yowa mü:yüwawoʔk
 jeʔ ʔu:ra=xü=k ʔi= ni- yopop -pitzüm -küx-i
 that hour =EV=AN A3(ABS)=RECP-get_excited-DIR:out-PL3-INCD

-j yowa mü:yüw -ʔawok
 -INVD.I young thunder-DIM
 36. At that time the little thunders went out really
 excited.

ti:k ʔitunuʔaʔ jeʔk mü:yüwawokü
 ti: =k ʔi= tun-u -ʔaʔ jeʔ =k mü:yüw -ʔawok
 what=AN A3(ERG)=do -COMI-NMZR that=AN thunder-DIM
 37. What did the little thunders do?

ʔipetik yukpi
 ʔi= pet -i =k yuk -pi
 A3(ABS)=ascend-COMD=AN upwards-LOC
 38. They went upwards.

je:pxük ʔipimimi
 jeʔ -pi =xü=k ʔi= pimim -i
 that-LOC=EV=AN A3(ABS)=thunder-INCD
 39. They were thundering.

ʔipimimküxi yowa mü:yüwawoʔk
 ʔi= pimim -küx-i yowa mü:yüw -ʔawok
 A3(ABS)=thunder-PL3-INCD young thunder-DIM
 40. The little thunders were thundering.

jeʔ ʔu:raxüʔk taʔe:pi ʔipiyüʔkta:küxi yukpi
 jeʔ ʔu:ra=xü=k ta= ʔe:p-i
 that hour =EV=AN C3(ERG)=see -COMD

ʔi= piyüʔk-ta:kʔ -küx-i yuk -pi
 A3(ABS)=run -suddenly-PL3-INCD upwards-LOC
 41. At that time she saw them running upwards.

sin nija?xü nipi:na?k winjo:ye?k ka:?itpa
 sin ni= ja?xü ni= pi:nak winjo:y+ek
 without NEG=DEF=EV NEG=a_little cloud

∅= ka=?it -pa
 B3(ABS)=NEG=exist-INCI.I

42. There was not even a little cloud.

pero je?k yowa mü:yüwawokü je:pxük ?ijapanti?
 pero je? =k yowa mü:yüw -?awok je? -pi =xü=k
 but that=AN tender thunder-DIM that-LOC=EV=AN

?i= japan -ti:y?-i
 A3(ABS)=be_noise-PUNCT-INCD

43. But those little thunders were there making noise.

yukpi ?ipiyü?kta:küxno ?ipiminküxi
 yuk -pi ?i= piyü?k+ta:k?-küx-nü -i
 upwards-LOC A3(ABS)=run -PL3-already-INCD

?i= pimim -küx-i
 A3(ABS)=thunder-PL3-INCD

44. They were running up there thundering.

nümpaxü?k ?itükaw ti: jamaj pimimpa
 ∅= nüm-pa =xü=k ?i= tükaw ti: jamaj
 B3(ABS)=say-INCI.I=EV=AN A3(PSR)=father what that

∅= pimim -pa
 B3(ABS)=thunder-INCI.I

45. Their father says: "What is that that is thundering?"

pero ka:?itpa nipi:na?k winjo:ye?k
 pero ∅= ka=?it -pa ni= pi:nak winjo:y+ek
 but B3(ABS)=NEG=exist-INCI.I NEG=a_little cloud

46. There is not even a little cloud.

mü: ja?mej ?ipimimi jamaj mü:yü?w
 mü:t ja?mej ?i= pimim -i jamaj mü:yüw
 and in_that_way A3(ABS)=thunder-INCD that thunder

47. And the thunder is thundering in that way.

nümpaxü?k ?itükaw nüxpak x?e:pe
 ø= nüm-pa =xü=k ?i= tükaw nüx-pa =k
 B3 (ABS)=say-INCI.I=EV=AN A3 (PSR)=father go -INCI.I=AN

tax= ?e:p-e
 C1 (ERG)=see -INCD

48. His father says: "I am going to see it."

?ijamatkükixü ja? ti: ya?aj
 ?i= jamat -kük-i =xü ja? ti: ya?aj
 A3 (ABS)=arrive-PL3-COMD=EV 3AN what this
 49. They got there. 50. "What is this?"

pos pitzümuk ya?aj yowa mü:yüwawo?k nümpaxü?k je?k ?ita:ta
 pos ø= pitzüm-u =k ya?aj yowa mü:yüw -?awok
 so B3 (ABS)=exit -COMI=AN this young thunder-DIM

ø= nüm-pa =xü=k je? =k ?i= ta:ta
 B3 (ABS)=say-INCI.I=EV=AN that=AN A3 (PSR)=grandmother
 51. "These little thunders escaped," their grandmother
 says.

mü:t nümpaxü?k ?oyaj
 mü:t ø= nüm-pa =xü=k ?oyaj
 and B3 (ABS)=say-INCI.I=EV=AN OK
 52. And he says: "OK"

nümpaxü?k je?k mü:yü?w
 ø= nüm-pa =xü=k je? =k mü:yüw
 B3 (ABS)=say-INCI.I=EV=AN that=AN thunder
 53. The thunder says.

mü:t jem ya?aj ?iküxi
 mü:t je?+mü ya?aj ?i= kük -i
 and there this A3 (ABS)=finish-COMD
 54. And this (story) finished there.

ya?k majaw ?imü:nikü?pa:tüwa? mü:yü?w
 ya? =ak majaw ?i= mü:- ni- kü?+pa:t -ü -w -a?
 that=AN woman A3 (ERG)=ASSOC1-RECP-get_marry-INV-COMI-NMZR

mü:yüw
 thunder

55. About the woman who married the thunder.

jeʔk ʔita:ta ʔiwanu seme taʔe:paʔn ʔita:tawoʔk
 jeʔ =k ʔi= ta:ta ʔi= wa:nʔ-u
 that=AN A3(PSR)=grandmother A3(ERG)=want -COMI

seme ta= ʔe:p-aʔn ʔi= ta:ta -wok
 very C3(ERG)=see -IRRD A3(PSR)=grandson-DIM
 56. The grandmother really wanted to see her grandsons.

pero jaʔxü tekeʔ ʔiyowa mü:yüwawoʔk
 pero jaʔ=xü tek =jeʔ ʔi= yowa mü:yüw -ʔawok
 but DEF=EV truly=CLEFT A3(PSR)=young thunder-DIM
 57. But these are really her young little thunders.

jeʔ ʔu:ra jem yaʔaj ʔiküxi
 jeʔ ʔu:ra jeʔ+mü yaʔaj ʔi= kük -i
 that hour there this A3(ABS)=finish-COMD
 58. At that time this finished there.

Conversation

The following is a segment of a two hours conversation between Antonio Asistente (AA) and Rafaela Santander (RS). The conversation took place at Rafaela's home in August 17, 1996.

we:no na:kxej mi?o:kanú taxmo?am tu?k mintú?kxa?n
 we:no na?kxej min= ?o:k-a?n tax= mo:y? -am tuk
 OK when A2 (ABS)=die -IRRD C1 (LOCAL)=give -IRRI one

min= tú?kx+an
 A2 (PSR)=candle

1. (AA) Ok, when you die, I will light a candle for you.

?aja? pero miwini:pe chu ?antun ka:?oyaxú je? tukú ta?ampiwí
 jumexú?k tu?k ?i?o:ka?n porke nimechixú ?inúkxi

?aja? pero min= wini:y?-pe chu ?antun
 OK but A2 (ERG)=know -INCI.T HON Antonio

ø= ka:=?oya=xú je? tuk tan= ?ampiw-i jumej=xú=k
 B3 (ABS)=NEG=good=EV that one A1 (ABS)=talk -INCD how =EV=AN

tuk ?i= ?o:k-a?n porke ni+metzi=xú ?i= nükx-i
 one A3 (ABS)=die -IRRD because pair =EV A3 (ABS)=go -INCD
 2. (RS) It's all right. But Mr. Antonio do you know that it is bad to talk about how one is going to die because then both persons could go (die).

ka:mix?ampiwí
 ka:=mix= ?ampiw-i
 NEG=C2 (ERG)=talk -INCD
 3. Don't talk about it!

ka:miyaktzú?kiyitú ka:miyaktzú?kiyitú
 ka:=mi= yak- tzú?k+?i:y?-?it -ü
 NEG=B2 (ABS)=CAUS-be_afraid -PL1.PO-IMPR

ka:=mi= yak- tzú?k+?i:y?-?it -ü
 NEG=B2 (ABS)=CAUS-be_afraid -PL1.PO-IMPR
 4. (AA) Don't scare me! Don't scare me!

ka:minümü chu ?antun porke ?itpaxü:ke? ?a:moto:pa? je?xü:ke?
ni:pakü je?xük mü:nükxitpa

ka:=min= nüm-ü chu ?antun porke ø= ?it
NEG=A2(ERG)=say-IMPR HON Antonio because B3(ABS)=exist

-pa =xü=k =je? ?aw+motow-pa+? je? =xü=k =je?
-INCI.I=EV=AN=that listen -NMZR that=EV=AN=that

ni:- pakü je? =xü=k ø= mü:- nükx-?it -pa
BODY-skinny that=EV=AN B3(ABS)=ASSOC1-go -PL1.PO-INCI.I
5. (RS) Don't say that Mr. Antonio, because there is
one who listens, she is death, the one who takes us.

motowa:mak mimpakü
ø= motow -am =ak min= pak
B3(ABS)=listen-IRRI=AN A2(PSR)=bone
6. (AA) Your bones are going to be heard

?imoto:pexü ja? ?u:ta kay mixwini?a?n
?i= motow -pe =xü ja?
A3(ERG)=listen-INCI.T=EV 3AN

?u:ta kay mix= wini:y?-a?n
ADM MODAL C2(ERG)=know -IRRD
7. (RS) She is listening to this. If only you knew.

na?kxej tanyo?we ?imu:ktakwitij ?i?ü:pe:ke? wo:sinajem
tamotowe je?xü kansyo?n jumej ?i?üwi

na?kxej tan= yo?we ?i= mu:k-tak- wit -i -j
when A1(PSR)=husband A3(ABS)=suck-LNKR-walk-INCD-INVD.I

?i= ?üw -pe =k =je? wo:sina -jem
A3(ERG)=sing-INCI.T=AN=that loud_speaker-LOC

ta= motow -e je? =xü kansyon jumej ?i= ?üw -i
C3(ERG)=listen-INCD that=EV song how A3(ABS)=sing-INCD
8. When my husband was walking around drinking, he was
singing about these matters in the loud speaker, so
death could listen to that song and the way he was
singing.

jeʔk ni:pakü
 jeʔ =k ni:- pakü
 that=AN BODY-skinny
 9. (AA) The death?

jo: mü:tak ʔinümi jaʔ ti: minümpe ni:pakü x mü:nükxpakü ʔu
 ka:x mü:nükxpaʔk

jo: mü:t=ak ʔi= nüm-i jaʔ ti: min= nüm-pe
 yes and =AN A3 (ABS)=say-COMD 3AN what A2 (ERG)=say-INCI.T

ni:- pakü tax= mü:- nükx-pa -k
 BODY-skinny C1 (LOCAL)=ASSOC1-go -INCI.I-INV.LOCAL

ʔu ka:=tax= mü:- nükx-pa -k
 or NEG=C1 (LOCAL)=ASSOC1-go -INCI.I-INV.LOCAL

10. (RS) Yes, and he said: "Death, what do you say? Are you taking me or you are not taking me?"

nümpa jaʔ wep taxmotowi
 ø= nüm-pa jaʔ wew -pi tax= motow -i
 B3 (ABS)=say-INCI.I 3AN there-LOC C1 (ERG)=listen-INCD
 11. He says: "I hear you there."

wep taxmotowi nopale:rawimpi miʔiti
 wew -pi tax= motow -i nopale:ra-win -pi
 there-LOC C1 (ERG)=listen-INCD cactus -on_top_of-LOC

min= ʔit -i
 A2 (ABS)=exist-INCD
 12. "I hear you there, you are on top of the cactus."

nümpa jaʔ je:p xʔe:pi
 ø= nüm-pa jaʔ jeʔ -pi tax= ʔe:p-i
 B3 (ABS)=say-INCI.I 3AN that-LOC C1 (LOCAL)=see -INCD
 13. He says: "I can see you there."

teʔejü naʔkxmü taxmü:nükxaneʔk nümpa jaʔ
 teʔej naʔkx-mü tax= mü:- nükx-aʔn -ek
 now when -LOC C1 (LOCAL)=ASSOC1-go -IRR-INV.LOCAL

ø= nüm-pa jaʔ
 B3 (ABS)=say-INCI.I 3AN
 14. "Now, when are you taking me?" He says.

minyofwe
 min= yo?we
 A2 (PSR)=husband
 15. (AA) Your husband?

jo: derrepentek ?i?o:ki ?iküxi ja?
 jo: derrepente =k ?i= ?o:k-i
 yes all_of_a_sudden=AN A3 (ABS)=die -COMD

?i= küx -i ja?
 A3 (ABS)=finish-COMD 3AN
 16. (RS) Yes, and all of a sudden he died. His life
 just finished.

?inüxne ja? derrepente
 ?i= nüx-nü -i ja? derrepente
 A3 (ABS)=go -already-COMD 3AN all_of_a_sudden
 17. All of a sudden he was gone for good.

pero ka:mitzü?kü?
 pero ka:=mi= tzü?k+?i:y?-ü
 but NEG=B2 (ABS)=be_afraid -IMPR
 18. (AA) But don't be afraid!

tanka:tzü?ki:pek ?ü:s
 tan= ka:=tzü?k+?i:y?-pe =k ?ü:tz
 A1 (ERG)=NEG=be_afraid -INCI.T=AN I
 19. (RS) I am not afraid of her.

ka:mitzü?kü? jama:ke? yukpi?aj ?iwini:pe
 ka:=mi= tzü?k+?i:y?-ü
 NEG=B2 (ABS)=be_afraid -IMPR

jamaj=k =je? yuk-pi -?aj ?i= wini:y?-pe
 that =AN=CLEFT up -LOC-NMZR A3 (ERG)=know -INCI.T
 20. (AA) Don't be afraid! That one, he who is up there,
 is the one who knows.

jo: je?k ?iwini:pe
 jo: je? =k ?i= wini:y?-pe
 yes that=AN A3 (ERG)=know -INCI.T
 21. (RS) Yes, that one knows.

jeʔkeʔ ʔel ma:s jamatekaj
 jeʔ =k =jeʔ ʔel ma:s jamat -ek -ʔaj
 that=AN=CLEFT the more arrive-PCP-NMZR

22. (AA) That one is the one with more knowledge.

jeʔ ʔidispone:rtumpe niʔtikü
 jeʔ ʔi= dispone:r-tun-pe niʔtik
 that A3(ERG)=stipulate-do -INCI.T everything

23. (RS) He stipulates everything.

niʔixi ʔü:s takoʔpaktumpaʔ ta minümpa jama:k tyakʔo:kam
 niʔixi ʔü:tz ta= koʔpak-tun-pa+ʔ ta
 like I B1(ABS)=head -do -NMZR COND

mi= nüm-pa jamaj=k tan= yak- ʔo:k-am
 B2(ABS)=say-INCI.I that =AN A1(ERG)=CAUS-die -IRRI

24. (AA) Like, I am the boss and you say: "I am going to kill that one."

pero ta taxka:moypa permi:so minka:mü:nükxpe jaʔ
 pero ta tax= ka:=mo:yʔ-pa permi:so
 but COND C1(LOCAL)=NEG=give -INCI.I permit

min= ka:=mü:- nükx-pe jaʔ
 A2(ERG)=NEG=ASSOC1-go -INCI.T 3AN

25. But if I don't allow it, you cannot take (kill) him.

jaʔmej
 jaʔmej
 in_that_way

26. (RS) That's it.

jaʔmej jeʔ ʔiʔiti ka:mitzüʔkiʔ niti:
 jaʔmej jeʔ ʔi= ʔit -i
 in_that_way that A3(ABS)=exist-INCD

ka:=mi= tzüʔk+ʔi:yʔ-i ni- ti:
 NEG=B2(ABS)=be afraid -INCD NEG-thing

27. (AA) That's the way the things are. You shouldn't be afraid of anything.

tanka:tzüʔki:pe
 tan= ka:=tzüʔk+ʔi:yʔ-pe
 A1(ERG)=NEG=be afraid -INCI.T

28. (RS) I am not afraid of anything.

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