

Collette Gray

PAPERS IN MAYAN LINGUISTICS

EDITED BY

LAURA MARTIN

ASSOCIATE EDITORS

VICTORIA R. BRICKER

WILLIAM NORMAN

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PREFACE

The papers collected in this volume were selected from papers presented during the two Symposia on Mayan Linguistics, held November 29 - December 3, 1977 in Houston. As had been the case in previous years, these symposia provided opportunities for consultation, collaboration and discussion which were enthusiastically exploited by the increasing number of specialists in Mayan studies. This volume is the third to grow out of such symposia and, like the others, edited by Marlys McClaran (1976) and Nora C. England (1978), reflects the diversity and strength of the investigations which occupy us.

All the papers included here have been revised, often substantially, to incorporate comments made during the symposia or additional data and analysis. The symposia discussants, Victoria R. Bricker and William Norman, who participated in the selection and editing process, have contributed a pair of essays which, in commenting on the papers, serve to integrate them into overall themes which are among the current concerns of Mayan linguists. These essays help organize the volume and introduce the two sections: Mayan Languages in Social Context and Structure in Mayan Languages.

It will be apparent to any reader that the wholesome situation described by England in the preface to the 1978 volume continues to characterize the work being done on Mayan languages. The acceptance of a diversity of approaches, the thoughtful collaboration with other disciplines, and the struggle toward broader generalizations are typical of the presentations in symposia, at summer workshops and in the Journal of Mayan Linguistics, as well as in this collection. Surely the success of so many activities is, in itself, testimony to the health and promise of Mayan language studies.

The preparation of this volume has depended on many individuals. First, grateful thanks are due to all those contributors whose prompt attention to deadlines, revisions, and other details made them a pleasure to work with. The associate editors, Victoria R. Bricker and William Norman, were important participants in the original success of the symposia and later in the editing and organization of the volume. Vicki Bricker has been especially helpful and patient. Louanna Furbee-Losee and Vernon Losee merit particular thanks for their assistance with publication details. And finally, the mechanical tasks involved in preparing the volume for submission have been handled by Maribeth Murzin with commendable skill.

Laura Martin
October, 1979

POSSESSOR ASCENSION IN TZOTZIL*

Judith Aissen
Yale University

1.0 Introduction

In Tzotzil, the principal syntactic means for indicating a semantic relation between two nominals is the possessive construction. In surface structure, possessive constructions have the form:

- (1) $[NP_1 [NP_2]]_{NP}$

where NP_1 is the possessed nominal and NP_2 the possessor. The possessed nominal bears a suffix which agrees in person with the possessor; the possessor is unmarked:¹

- (2)a. s -tot li Xun-e
HIS-FATHER THE XUN-enc
'Xun's father'
b. 7av -ajnil (li vo7ot-e)
YOUR-WIFE THE YOU-enc
'your wife'
c. j-me7 (li vo7on-e)
MY-MOTHER THE ME-enc
'my mother'

Like other pronouns, pronominal possessors generally do not occur in surface structure; thus (2b,c) would be likely to occur without the parenthesized pronouns. Note that the string in (1) is a NP.

This syntactic construction conflates a variety of semantic relations which may hold between two nominals (this is taken up in more detail in section 4) and as such is viewed as a sort of funnel which neutralizes different notional relations in a single syntactic construction. It is assumed here that in underlying syntactic representation, the possessed NP is represented as the head of the phrase and the possessor as adjunct of some sort; how this is represented will depend on the theory one assumes.

As NPs, possessive phrases occur in all syntactic positions that other NPs occur in. We are interested here in cases where the possessive phrase is direct object in its clause, for in these cases, the NP understood as possessor does double syntactic service, serving both as possessor of the direct object and as indirect object of the clause. This construction will be termed the possessor ascension construction. Here certain features of this construction are described and the following claims argued for:²

- (3)a. that in this construction, the possessor is a syntactic argument of the clause distinct from the possessed NP and

- that it is the indirect object.
- b. that this indirect object is a copy (in a sense to be made more precise below) of the possessor of the direct object.
 - c. that this category of indirect objects is a syntactic category, not a notional one -- that is, that the conditions which allow this construction are best stated in syntactic terms, not in notional ones.

2.0 Some Basic Facts

Basic facts of Tzotzil sentence structure are noted here, some without example since these will be amply illustrated in later examples. Tzotzil is a verb-initial, subject-final language. Between these two occur the direct object and oblique constituents, the relative order of which is not strictly fixed though the direct object prefers immediate postverbal position. Various movement rules and ellipsis processes may obscure these basic patterns.

NPs are not marked for the term grammatical relations (i.e. subject and direct object); that is, there is no case marking. The verb agrees with both final subject and direct object (if there is one) of the clause in ergative fashion. Pronominals are omitted in surface structure if they are non-emphatic.

2.1 Verb Agreement

As noted above, the verb agrees with both final subject and final direct object, if there is one. The person of a transitive subject is cross-referenced on the verb by a prefix chosen from the ergative set (4a) below. The ergative prefixes themselves come in two sets whose distribution is determined by whether the verb stem is glottal stop-initial or consonant-initial (there are no vowel-initial stems); glottal stop deletes after the ergative prefix.

(4)a. ergative prefixes

	/ <u> </u> ʔ	/ <u> </u> other consonants
1	k-	h-
2	ʔav-	ʔa-
3	y-	s- (x before x or ch).

Plurality of the subject is optionally cross-referenced by a suffix chosen from set (4b) below:

- b. 1 inclusive -tik
- 1 exclusive -tikótik
- 2 -ik
- 3 -ik

In sentences with a single object (i.e. direct object), the person of the object is cross-referenced by an affix chosen from the absolutive set (4c,e). This affix is either a prefix or a suffix depending on other aspects of the verb morphology.³ The same is true of intransitive subjects. When an absolutive prefix is used, it optionally co-occurs with a suffix (4d) marking plurality of the object or intransitive subject. Thus, the categories of person and number are independent-

ly expressed when absolutive prefixes are used. However, these categories are conflated in the absolutive suffixes, so that number is necessarily marked whenever absolutive suffixes are required.

c. absolutive prefixes

- 1 -i-
- 2 -a-
- 3 \emptyset

d. plural suffixes used with absolutive prefixes

- 1 inclusive -otik
- 1 exclusive -otikótik
- 2 -ik
- 3 -ik

e. absolutive suffixes

- 1sg. -on
- 2sg. -ot
- 3sg. \emptyset
- 1pl. inclusive -otik
- 1pl. exclusive -otikótik
- 2pl. -oxuk
- 3pl. -ik

In this paper, third person absolutive affix \emptyset is not indicated in the verb forms. Any verb form with an ergative prefix but no overt absolutive prefix has a third person direct object; intransitive verbs lacking an absolutive affix have third person subjects.

Examples:

- (5) Ch -i -bat.
ipf-A1-GO
'I'll go.'
- (6) Mi 1 -a -tal?
Q pf-A2-COME
'Have you come?'
- (7) ʔi-cham.
pf-DIE
'He died.'
- (8) Ch -a -j -kolta-ik. 83/197
ipf-A2-E1-HELP -2pl
'I'll help you.'
- (9) Bal x -i -s -mak -otik. 83/199
ENOUGH ipf-A1-E3-COVER-1pl
'Sufficient that she cover us.'
- (10) ʔi-y -il li pale -e. 76/187
pf-E3-SEE THE PRIEST-enc
'The priest saw it.'

2.2 Possessive Prefixes

It was noted above that possessed nouns bear a prefix cross-referencing the person of their possessors. These prefixes are identical in form

to the ergative prefixes used in the verbal system (4a) and are distributed according to initial segment in the same way. Possessed NPs also optionally bear a suffix which agrees in number with the possessor. These suffixes are identical to those used with the ergative prefixes in the verb system (4b).

The possessor may itself be a possessed NP, giving rise to structures of the form $[NP_1 [NP_2 [NP_3]]]_{NP}$ where both NP_1 and NP_2 are prefixed. In the following examples, NP_3 , the possessor of NP_2 is pronominal and does not occur in surface structure:²

- (11)a. s -tzeb li y -ixlel-e.
E3-DAUGHTER THE E3-YOUNGER SISTER-enc
'his younger sister's daughter'
b. s -ve7el 7av-alak'
E3-FOOD E2-CHICKEN
'your chicken's food' (i.e. food for your chicken)

3.0 Possessed NPs as Direct Object

When a possessed NP is deep direct object to the verb, the verb is generally suffixed with -be:

- (12) 7i-s -tz'is-be la s -nukulal ti pukuj-e. 10/30
pf-E3-SEW -be pt E3-SKIN THE DEVIL-enc
'He sewed up the devil's skin.'
(13) Muk' x -ch'un-be s -mantal ti kajvaltik. 70/258
NOT E3-OBEY-be E3-ORDER THE OUR LORD
'They didn't obey our Lord's command.'
(14) 7i-s-pik -be y -o7on ti s -malal -e. 4/74
pf-E3-FEEL-be E3-HEART THE E3-HUSBAND-enc
'She felt her husband's chest.'

When the possessed NP is deep subject, the verb is not specially marked:

- (15) 7oy la s -buluk' sat ti 7antz-e. 105/42
EXIST pt E3-HORNWORM THE WOMAN
'The woman had a hornworm.' (lit. 'The woman's hornworm existed.')
- (16) Yayij -em la jun x -chikin 7un. 127/184
WOUND (i)-prfp pt ONE E3-EAR pt
'One of his ears was hurt.'
- (17) Meltzaj-em xa s -na. 83/197
MAKE(i)-prfp NOW E3-HOUSE
'Her house has been built already.'

Crucial to the analysis of these constructions is the analysis of -be, a suffix which is not restricted to the possessor ascension construction. -be attaches only to transitive stems and does so whenever two non-subject NPs occur in the sentence neither of whose relation to the clause is overtly marked.⁴ One of these NPs is the deep syntactic direct object and will be referred to for the moment as the first object. The other, second object, may correspond to any one of a number of notional relations, including the following:

- (18)a. recipient with verbs like 7ak' 'give', chon 'sell'
b. benefactive
c. malefactive
d. locative with certain verbs and under certain conditions
e. addressee with verbs like 7al 'speak'

In surface structure, the first object precedes the second. Examples corresponding to each of these classes follows with the second object underlined in the translation and the original. In many of these examples, one or both of the objects is pronominal (this is because the examples are from texts) but it is clear that these pronominal objects are part of the linguistic structure and can be elicited.

- (19)a. Ch -a -k -ak' -be. 4/75
ipf-A2-E1-GIVE-be
'I'll give it to you.'
- b. Ch -a -j -mil -be-ik. 121/131
ipf-A2-E1-KILL-be-2pl
'I'll kill them for you(pl).'
- c. 7i-s -poj -be li j -ch'ultot 7un-e.
pf-E3-REMOVE-be THE E1-GODFATHER pt-enc
'He took her away from my godfather.'
- d. 7i-s -nap'an-be s-ni7 x -chikin ti s -bankil-tak-e. 13/41
pf-E3-STICK -be E3-NOSE E3-EAR THE E3-OLDER BROTHER-pl-enc
'He stuck noses and ears on his older brothers.'
- e. 7i-k -al -be li j -tot-e. 118/138
pf-E1-SAY-be THE E1-FATHER-enc
'I said it to my father.'

The syntax of this construction can be summarized briefly: in cases where the verb is suffixed with -be, it is the second object which is derived direct object in the clause. It is this NP and not the first object which is cross-referenced by the absolutive affixes in both transitive sentences and intransitive passive sentences. Agreement with the second object in transitive sentences is shown in (19a,b). As examples (8-10) illustrate, in transitive sentences with no second object (and therefore no -be) the first object is cross-referenced by the absolutive affix.

In Aissen (to appear), constructions with -be in which the second object is notional recipient are analyzed as follows. In deep syntactic structure, the first object is deep syntactic direct object and the second object is deep syntactic indirect object. A rule of Indirect Object Advancement promotes the indirect object to direct object as a result of which the original direct object is displaced and demoted to direct object chomeur (following Perlmutter and Postal 1977). The verb is suffixed with -be, the morphological reflex of this advancement. Thus, sentences with -be have at least the two following levels of syntactic structure:

(20)	First Object	Second Object
Level x	direct object	indirect object
Level y	direct object chomeur	direct object

There are no indirect objects in surface structure in Tzotzil. Informally, we may think of the advancement as obligatory (but see Aissen (to appear) for a more formal discussion.)

Two pieces of evidence for the derived direct objecthood of the second object can be adduced. The first is that when a second object occurs in the clause, the verb must agree absolutely with it. If we assume that absolutivity agreement is with the direct object of the clause, then the second object must be direct object at the level the agreement rule refers to.⁵

Secondly, the direct object of a transitive sentence may passivize, becoming subject of an intransitive verb suffixed with either -e or -at (always -at in the case of polysyllabic stems). The verb agrees absolutely with this new subject in person and optionally in number:

- (21) L -i -tzak -e. 20/66
pf-A1-CATCH-enc
'I was caught.'
- (22) 7i-tz'ot-e -ik. 111/39
pf-TIE-pass-3pl
'They were tangled.'
- (23) Chotan-at. 84/209
SEAT-pass
'She was seated.'

In sentences in which Indirect Object Advancement has applied (suffixing the verb with -be) the nominal which passivizes is the second object, not the first. The verb (suffixed with both -be and -at (> -bat)) agrees absolutely with its derived subject, the deep indirect object:

- (24) Ch -i -k'elan-b-at jun tzeb. 20/66
ipf-A1-PRESENT-be-pass ONE GIRL
'I'm being presented with a girl.'
- (25) Te 7ak'-b -at -ik 7un. 66/342
THERE GIVE-be-pass-3pl pt
'There they were attacked.' (lit: There they were given it.)

The relational structure of (24) is as follows:

	<u>k'elan</u>	<u>vo7on</u>	<u>jun tzeb</u>	PRO
	'present'	'me'	'a girl'	
Level 1	verb	ind. obj.	dir. obj.	subj.
Level 2	verb+ <u>be</u>	dir. obj.	dir. obj. chom.	subj.
Level 3	verb+ <u>be+at</u>	subj.	dir. obj. chom.	subj. chom.

If we assume that only direct objects passivize and that absolutivity agreement in intransitive sentences is only with the subject, then the second object must be direct object at the level which Passive refers to and subject at the level Agreement refers to.

To the list in (18) of relations that second objects correspond to must be added possessor of direct objects. Thus, we propose that the structure of (12) (repeated below as (26)) includes the following levels:

- (26) 7i -s -tz'is-be la s -nukulal ti pukuje-e.
pf-E3-SEW -be pt E3-SKIN THE DEVIL-enc
'He sewed up the devil's skin.'

- (27) tz'is snukulal ti pukuje ti pukuje 'he'

Level x	verb	direct object	indirect object	subject
Level y	verb+ <u>be</u>	direct object chom	direct object	subject

At level x, ti pukuje 'the devil' is both possessor of the direct object and indirect object of the clause. At level y, the former indirect object has advanced to direct object, putting the direct object en chômage. This accounts for the presence of -be in sentences containing a possessed direct object. Below, it is argued that level x is not the level of underlying structure, but arises as a result of a rule of Possessor Ascension which raises a copy of the possessor of the direct object out of the possessive phrase and assigns it the relation of indirect object in the clause. For the moment, the crucial point is the evidence that in fact the derived direct object of the clause is pukuje and not snukulal ti pukuje.

First, the transitive verb agrees in person (absolutely) with the possessor, not the possessed noun, which is always third person:

- (28) Mi muk' bu x -av-il -b -on j -tzeb? 18/80
Q NOT ipf-E2-SEE-be-A1 E1-DAUGHTER
'Haven't you seen my daughter?'
- (29) Ch -i -s-tzak-be li j -k'ob-e 138/56
ipf-A1-E3-GRAB-be THE E1-HAND-enc
'She grabs my hand.'

Agreement in person with the possessor of the direct object is impossible if the verb is not suffixed with -be:

- (30) *Mi muk' bu x -av-il -on j -tzeb?
Q NOT ipf-E2-SEE-A1 E1-GIRL
- (31) *Ch -i -s -tzak li j -k'obe.
ipf-A1-E3-GRAB THE E1-HAND

Second, intransitive passive verbs agree in person with the possessor of the deep direct object, not the deep object itself, indicating that it is the possessor which advanced to subject by Passive:

- (32) L -a -chik'-b -at t -a -chak-e. 49/325
pf-A2-BURN-be-pass THE-E2-ASS -enc
'Your ass was burnt.'
- (33) L -i -k'as -b -at j -k'ob.
pf-A1-BREAK-be-pass E1-HAND
'My hand was broken.'

Again, agreement of intransitive passive verbs with the person of the possessor is impossible if the verb is not suffixed with -be:

- (34) *L -a -chik'-e/at t -a -chak-e.
 pf-A2-BURN-pass THE-E2-ASS-enc
 (35) *L -i -k'as-e/at j -k'ob.
 pf-A1-BREAK-pass E1-HAND

Agreement (in the sentences with -be) with some person other than that of the possessor also results in ungrammaticality; the following all agree with a third person (zero):⁶

- (36) *Ta -s -tzak-be li j -k'ob-e.
 ipf-E3-GRAB-be THE E1-HAND
 (37) *7i-chik'-b -at t -a -chak-e.
 pf-BURN-be-pass THE-E2-ASS-enc
 (38) *7i-k'as -b -at j -k'ob.
 pf-BREAK-be-pass E1-HAND

These facts are all accounted for in an analysis in which the possessor of the direct object is made indirect object of the clause. As indirect object, it advances to direct object, leaving the verb suffixed with -be. As direct object, it may passivize and as either final direct object or final subject (by Passive) the verb agrees with it. The final chomeurhood of the possessed noun, deep direct object, accounts for the fact that it may not passivize and the verb does not agree with it.

A partial relational structure of (32) is given in (39):

(39)	<u>chik'</u> 'burn'	<u>7achak li vo7ote</u> 'your ass'	<u>li vo7ote</u> 'you'	PRO
Level x	verb	direct object	indirect object	subject
Level y	verb+ <u>be</u>	direct object chom.	direct object	subject
Level z	verb+ <u>be+at</u>	direct object chom.	subject	subject chom.

It will be argued in section 4 that Level x in (39) is not the level of underlying syntactic structure.

3.1 Restrictions

There are two restrictions on the possessor ascension construction which are noted here.

The first is that while this construction is essentially obligatory for third person possessors, it is optional for first and second person possessors. Thus, (40a) and (41a) with third person possessors are ungrammatical, while (42a) and (43a) with first and second person possessors are grammatical:

- (40)a. *Ta -j -sep s -jol.
 ipf-E1-CUT E3-HEAD
 b. Ta -j -sep-be s -jol.
 ipf-E1-CUT-be E3-HEAD
 'I'll cut off his head.'
 (41)a. *Ta -j -meltzan s -k'u7.
 ipf-E1-MAKE E3-CLOTHES

- b. Ta -j -meltzan-be s -k'u7.
 ipf-E1-MAKE -be E3-CLOTHES
 'I'll make his clothes.'
 (42)a. Ta -j -sep 7a-jol.
 ipf-E1-CUT E2-HEAD
 'I'll cut off your head.'
 b. Ch -a -j -sep-be 7a-jol.
 ipf-A2-E1-CUT-be E2-HEAD
 'I'll cut off your head.'
 (43)a. Ta -s -meltzan j -k'u7.
 ipf-E3-MAKE E1-CLOTHES
 'She'll make my clothes.'
 b. Ch -i -s -meltzan-be j -k'u7.
 ipf-A1-E3-MAKE -be E1-CLOTHES
 'She'll make my clothes.'

Additional examples are cited in section 4.1.

The second restriction is that if the possessor of the direct object is coreferential with the subject, then the possessor ascension construction is impossible. Thus, (44) and (45) are unambiguous; (44) has no reading on which subject and possessor are coreferents and (45) no reading on which subject and possessor are not coreferents.

- (44) 7i-s -k'opon-be y -ajnil.
 pf-E3-SPEAK-be E3-WIFE
 'He_i spoke to his_j/_{*i} wife.'
 [nb. k'opon governs a direct object, not an indirect object]
 (45) 7i-s -ta to ti s -na 7un-e. 126/70
 pf-E3-FIND pt THE E3-HOUSE
 'She got home.' (lit: She_i found her_i/_{*j} house.)

Further examples are cited in section 4.1. An account of these facts is proposed in Aissen (forthcoming).

In the remainder of this paper, I assume that Possessor Ascension is obligatory with third person possessors and optional otherwise;⁷ and that this construction is not used when the subject and possessor of direct object are coreferential.

4.0 Evidence for Possessor Ascension as a Syntactic Rule

The previous section shows that an NP identical to the possessor of the direct object may be derived indirect object in the clause and then derived direct object. The question remains, however, whether this indirect object is an indirect object in underlying structure. If so, in sentences like (12-14) the understood possessor bears two deep syntactic relations: possessor of the direct object and indirect object of the clause. The alternative is that such clauses contain no deep indirect object and that a syntactic rule adds one to the clause. This question will not receive a conclusive answer here, but we will argue in favor of the latter analysis because it accounts in a straightforward manner for certain facts about this construction. No doubt the facts could be stated in the other analysis, but how is not clear.

To the list of relations in (18) which are realized as syntactic indirect object, we added that of possessor of the direct object. However, this relation differs from the others on the list because it corresponds to no unitary notional or semantic category. Rather, the relation 'possessor of the direct object' is a syntactic relation as must be therefore the indirect object relation which corresponds to it. This section presents evidence that the class of possessor indirect objects cannot be adequately characterized except as copies of the syntactic possessor of the direct object. In particular, this class cannot be characterized semantically or notionally except by redundantly characterizing the class of possessors of direct objects, which is itself a syntactic category. This dependency is accounted for directly by assuming that possessor indirect objects are copies of the possessor of the direct object. Two sorts of facts point to the syntactic nature of this class.

4.1

First, any possessor of a direct object may be raised to indirect object. As noted at the outset, the possessive construction neutralizes a number of different semantic relations that hold between two nominals, but regardless of the nature of the relation, the possessor may be indirect object. Below are examples which illustrate the diversity of semantic relations which are expressed in this construction. Under each class are two kinds of examples: sentences with possessor indirect objects (the verb is suffixed with -be) and sentences without (no -be). Both types are given to show that the interpretation of the relation between the possessed noun and possessor does not depend on the presence or absence of the indirect object. Sentences of the second type lack -be for one of the reasons noted in section 3.1.

(46) body part relation

with -be

- a. Ch -i -s -toyilan-be j -jol. 127/185
ipf-A1-E3-KEEP LIFTING-be E1-HEAD
'He kept lifting my head.'
- b. 7i-s -maj-be y -ok. 123/125
pf-E3-HIT-be E3-LEG
'He_i hit his_j leg.'
- without -be
- c. K'un ch -a -tzak j -k'ob-e. 49/324
WHY ipf-E2-GRAB E1-HAND-enc
'Why did you grab my hand?'
- d. Ti k'al 7i-s -tik' ti y -ok -e... 84/210
WHEN pf-E3-STICK THE E3-LEG-enc
'When she_i put her_i foot in...'

(47) kin relation

with -be

- a. K -ik' -oj -be s -tzeb.
E1-TAKE-prfp-be E3-DAUGHTER
'I've taken his daughter.'
- b. Mi muk' bu x -av-il -b -on j -tzeb. 18/80.
Q NOT ipf-E2-SEE-be-A1 E1-DAUGHTER
'Haven't you seen my daughter?'

without -be

- c. Ch -k -ik' i 7a-tzeb-e. 87/291
ipf-E1-TAKE THE E2-DAUGHTER-enc
'I'll marry your daughter.'
- d. S -maj taj y -ajnil 7un-e. 78/242
E3-HIT THAT E3-WIFE pt-enc
'He_i hit his_i wife.'

(48) "subjective genitive"

with -be

- a. 7i-ch'un-b -at s -mantal ta 7ora, 7a li j -vix-e. 83/197
pf-OBEY -be-passE3-ORDER RIGHT OFF pt THE E1-OLDER SISTER-enc
'My older sister's order was obeyed right off.'

without -be

- b. S -koj ti mu s -ch'un ti 7a-mantal-e..(Cowan 61 orthography
E3-CAUSE THE NOT E3-OBEY THE E2-ORDER-enc regularized)
'Because they don't obey your order...'

- (49) inanimate possession: This category of possessive construction, generally referred to as 'inanimate possession' by Mayanists, is peculiarly Mayan. Laughlin (1975:25) describes this construction as indicating the "linkage of two objects or of an object and an action either by location or by design." The possessed noun in this construction frequently bears a suffix -V1 otherwise absent. A number of examples are given here of this construction since such examples furnish the strongest evidence that possessor indirect objects cannot be reduced to the notional category benefactive or malefactive. For in these cases the possessor is frequently not sentient.

with -be

- a. Tz -jok'-be-ik x -ch'en-al. 86/278
ipf/E3-DIG-be-3pl E3-HOLE-V1
'They dig a hole for them [the bones].' (lit: They dig their [the bones']hole.)
- b. Ta -j -pol -be s -kayajon -al k -osil-tik-e. 69/248
ipf-E1-CLEAR-be E3-FIRELANE-V1 E1-LAND-lpl-enc
'I'll make a firelane around our land.' (lit: I'll clear our firelane's land.)
- c. Bu ma ch -a -ta -be s -tojol li kaxlan vaj? 130/314
WHERE pt ipf-E2-FIND-be E3-PRICE THE BREAD
'Where in the world do you find the money for the bread?'
(lit: ...the bread's money)
- d. Ch -i -s -na7 -be tal j -nichim -al. 130/312
ipf-A1-E3-REMEMBER-be COMING E1-FLOWER -V1
'They remember to bring me my flowers.' (i.e. the flowers intended for me.)

- e. Ta j -nujan -be s -p'in-al. 86/280
 IpF E1-TURN FACE DOWN-be E3-POT-V1
 'I'll turn it's[the soup's] pot face down.'
 (i.e. the pot that the soup was cooked in)
- f. 7i-s -sa7 -be li y -unen 7ak'-il ti 7unen te7tikil chij
 pf-E3-FIND-be THE E3-LITTLE VINE-V1 THE LITTLE DEER
 7un-e. 86/282 'He found a little cord for the baby deer.'
 pt-enc (lit: the babydeer's vine) (i.e. the vine
 to tie the baby deer up with)

without -be

- g. Ta x-a-k -ak' -be s -kolesob-il l -a -vokol. 84/205
 ipf -A2-E1-GIVE-beE3-HELP -V1 THE-E2-HARDSHIP
 'I will give you something to relieve your hardship.'
 (lit: I will give you your hardship's help.)

In (49g) the verb is suffixed with -be, but the final direct object in this example is the notional recipient, not the possessor of the original direct object, as evidenced by the verb agreement. In this case, Possessor Ascension has failed to apply, apparently because the sentence contains a deep indirect object.⁸

4.2

A second kind of evidence that the possessor ascension construction is a syntactic construction comes from the use of this construction in discourse. Here we emphasize the difference between the situation described by an utterance and the linguistic form of that utterance. Once certain details of the actual situation are known (for whatever reason -- pragmatics, previous discourse), they need not be stated in the linguistic form. Anaphora is a prime example of this. In our texts, there are discourses where the same object is referred to several times but by different linguistic forms. The relevant cases are ones in which the thing is first referred to by a possessed noun but subsequently by an unpossessed noun (the possessor being known) or by a zero pronoun. In the first instance, the syntax of the construction requires the possessor ascension construction. In the second, the syntax does not allow it. While the referent of these various forms remains constant, its linguistic expression changes and the syntax varies accordingly. Some examples follow:

- (50) 7i-x -ch^o7-be s -nukulal-e ... ba x -chon li nukul 7un-e.
 pf-E3-STRIP-be E3-SKIN-enc GO E3-SELL THE SKIN pt-enc
 'He stripped off his [the coyote's] skin ... he 50/336
 went to sell the skin.'
- (51) Muk' x -ch'un-be s -mantal ti kajvaltik, lavi mu x -a -ch'un
 NOT E3-OBEY -be E3-ORDER THE OUR LORD NOW NOT ipf-E2-OBEY
 mantal-e... 70/258
 ORDER-enc
 'They didn't obey our Lord's command; now if you don't obey
 the command...'
- (52) 7i-s -tz'is-be la s -nukulal ti puku-j-e. 7i-s-lap la.
 pf-E3-SEW-be pt E3-SKIN THE DEVIL-enc pf-E3-PUT ON pt 10/30-1
 'He sewed up the devil's skin; he put it on.'

A particularly nice example of this sort (because it is long) is the following portion of a text in which the object (the deer's penis) is referred to eight times. Twice it is referred to as a possessed noun and in those cases, the verb is suffixed with -be, indicating the possessor ascension construction. In the remaining six cases, the object is referred to by a zero pronoun and the verb is not suffixed with -be. Note that the pronoun must be assumed to be part of the syntactic representation because in all six cases, it is the direct object of a morphologically (and therefore presumably syntactically) transitive verb. The possessed objects are underlined, as are all the verbs.

- (53) S -tam -be la y -at ti te7tikil chij-e, x -cho7 la
 E3-TAKE-be pt E3-PENIS THE DEER -enc E3-SKIN pt
 s -k'el la, lek la s -lok'es -be ti y -at ti te7
 E3-LOOK pt WELL pt E3-REMOVE -be THE E3-PENIS THE DEER
 tikil chij-e, 7i-x -xoj la, 7i-s -vo la... 7i-x -cho7-be
 -enc pf-E3-SKEWER pt pf-E3-ROAST pt pf-E3-SKIN-be
 la lok'el s -nukulal yo7 ti mu x -7ojtikin 7o ti 7antz
 pt OFF E3-SKIN SO THE NOT ipf-KNOW pt THE WOMAN
 7un-e... tz-vo 7un. 86/282
 pt-enc ipf/E3-ROAST pt
 'He took the deer's penis, he skinned it, he looked at it,
 he cut off the deer's penis, he skewered it and roasted it...
 he skinned off the foreskin so that the woman wouldn't recog-
 nize it...he roasted it.'

If we assume that possessor indirect objects do not occur in underlying structure but are added to the clause by a syntactic rule and that pronouns occur as pronouns in underlying structure (and not full NPs), then the facts observed in the preceding paragraphs follow automatically. In cases where the linguistic form is a possessed noun, its possessor is raised to indirect object of the clause. In cases where the linguistic form is a zero pronoun, the underlying representation was a pronoun (crucially, not a possessed noun). Since this pronoun is not possessed, the rule of Possessor Ascension will not apply, there will be no possessor indirect object, no Indirect Object Advancement, and no -be.⁹

Because the assumption of a syntactic rule of Possessor Ascension accounts with no complications for the complete dependence of the possessor ascension construction upon the occurrence of a syntactically possessed direct object, we adopt it here. In the following section, the nature of this ascension rule is examined more closely.

5.0 Evidence for Copy Possessor Ascension

In preceding sections we have argued for a rule of Possessor Ascension which raises the possessor of a direct object to indirect object in the clause. This indirect object then advances to direct object, leaving the verb suffixed with -be.

Here it is argued that Possessor Ascension is a copying rule; that is, that it raises a copy of the possessor to indirect object. Thus, after the application of Possessor Ascension, the nominal puku-j in (12/26) for

example bears two grammatical relations in the clause: possessor of the direct object and indirect object:

(54)	<u>tz'is</u> 'sew'	<u>snukulal ti pukuje</u> 'the devil's skin'	<u>ti pukuje</u> 'the devil'
Level 1	verb	direct object	----- indirect object
Level 2	verb	direct object	direct object
Level 3	verb+ <u>be</u>	direct object chomeur	direct object

These two stand in an anaphoric relation; one must be realized as zero while the other occurs as a full nominal in surface structure. The one which is realized as a full nominal will be said to antecede the other.¹⁰ Evidence for Possessor Ascension as a copying rule (i.e. evidence that there are in fact levels of structure like those of (54)) comes from the fact that either copy or original may antecede the other. Depending on which is realized as zero, the surface structure of the clause derived from (54) is different. If the copy is realized as zero, then the surface string snukulal ti pukuje is a constituent, (55a). If the original is zero, then the string is not a constituent, (55b):

- (55)a. [snukulal [ti pukuje]] [∅]
 b. [snukulal [∅] [ti pukuje]]

Thus, sentences like (12-14) are ambiguous in constituent structure (though not in relational structure).

Evidence for the ambiguity in constituent structure of such sentences is that rules sensitive to constituency treat strings like snukulal ti pukuje in possessor ascension constructions both as a constituent and as a non-constituent. If this string had a single constituent structure, this would be a paradox, assuming that these rules applied to the same level of structure. The ambiguity is explained under this analysis since the string has two structures. Crucial to this account is the double occurrence of pukuj, a situation which arises because Possessor Ascension is a copying rule. We proceed here by presenting evidence for each of the structures (55a) and (55b).

5.1 Evidence for Non-Constituency

We give one argument for the existence of structure (55b), the structure one would expect, given the relational structure of this sentence. This is based on sentences like the following in which the possessed noun (xchak) and the possessor (ti bolome) are not contiguous in surface structure. If they made up a surface constituent, ta te7 would not separate them:¹¹

- (56) 7i-k'as -b -at x -chak ta te7 ti bolom-e. 5/45
 pf-BREAK-be-pass E3-ASS WITH STICK THE TIGER-enc
 'Tiger's ass was broken with a stick.'

The proposed derivation for this sentence is as follows. Note that Pos-

essor Ascension, Indirect Object Advancement, and Passive all apply:

(57)	<u>k'as</u> 'break'	<u>xchak ti bolome</u> 'Tiger's ass'	<u>ta te7</u> 'with a stick'	<u>ti bolome</u> 'Tiger'	PRO
Level 1	verb	direct obj.	oblq.	-----	subj.
Level 2	verb	direct obj.	oblq.	indirect obj.	subj.
Level 3	verb+ <u>be</u>	direct obj. chom.	oblq.	direct obj.	subj.
Level 4	verb+ <u>be+at</u>	direct obj. chom.	oblq.	subject	subj. chom.

At level 1, ti bolome bears only one relation in the clause, possessor of the direct object. At level 2, it is copied as indirect object by Copy Possessor Ascension; the indirect object advances to direct object at level 3, suffixing the verb with -be and putting the underlying direct object en chômage. It advances to subject (by Passive) at level 4, suffixing the verb with -at and putting the deep subject en chômage. After these rules, ti bolome as possessor of the direct object chomeur is realized as zero with the final subject as antecedent. The above diagram was arranged to reflect the surface order of constituents. The reason for this order is as follows: as noted, Tzotzil is a verb-initial, subject-final language. Final subject in this sentence is the copy of the possessor. The preferred position for direct object chomeur is immediately after the verb. What remains of the direct object chomeur here is xchak. Given these restrictions: V - direct object chomeur - _____ - subject, the only remaining position for the oblique ta te7 is between xchak and ti bolome.

5.2 Evidence for Constituency¹²

Topicalization provides evidence for the derivation in which the possessor copy is realized as zero, thus making the surface string snukulal ti pukuje a constituent. Consider the following sentence:

- (58) 7i-k -il -be ta Hobel s -tot ti tzeb-e.
 pf-El-SEE-be AT Las Casas E3-FATHER THE GIRL-enc
 'I saw the girl's father in Las Casas.'

Possessor Ascension has applied in the derivation of this sentence, as evidenced by -be suffixed to the verb. The linear order of (58) does not indicate whether stot ti tzebe is a surface constituent or not (post-verbal position is preferred by the direct object chomeur, but this position is sometimes taken by obliques). However, stot ti tzebe may be topicalized, which is possible only for a surface constituent:

- (59) 7a li s -tot ti tzeb-e 7i-k -il -be ta Hobel.
 pt THE E3-FATHER THE GIRL-enc pf-El-SEE-be AT Las Casas
 'The girl's father, I saw him in Las Casas.'

Before we show that a non-constituent may not be topicalized in Tzotzil, note the derivation of (59):

(60) 7il ta Hobel stot ti tzebe ti tzebe vo7on
 'see' 'at Las Casas' 'girl's father' 'the girl' 'I'

Level 1	verb	oblique	direct object	-----	subject
Level 2	verb	oblique	direct object	ind. obj.	subject
Level 3	verb+be	oblique	dir. obj. chom.	direct obj.	subject

At this point, the direct object chomeur is topicalized and as part of the topic, ti tzebe antecedes its copy, the final direct object of the clause, which is realized as zero.

An argument that only constituents may be topicalized can be based on the existence of near synonymous nouns which form minimal pairs in that one must be possessed while the other cannot be. Such a pair is vaj 'tortilla' which may not be possessed and -ot 'tortilla' which must be. Consider the following two sentences, both having an indirect object at some point as evidenced by the suffix -be:

(61) 7i-j -meltzan-be vaj li Romin-e.
 pf-El-MAKE-be TORTILLA THE ROMIN-enc
 'I made tortillas for Romin.'

(62) 7i-j -meltzan-be y -ot li Romin-e.
 pf-El-MAKE -be E3-TORTILLA THE ROMIN-e
 'I made Romin's torillas.'

In (61) vaj li Romine cannot be a constituent since vaj is not possessed; Romin is a notional benefactive. In (62), yot li Romine can be a constituent; this is an example of the possessor ascension construction. While yot li Romine may be topicalized, vaj li Romine may not:

(63) *7a li vaj li Romine 7ijmeltzanbe.

(64) 7a li yot li Romine 7ijmeltzanbe.

The only instance of this sort of Topicalization which has been noted in a text is the following in which not only have Possessor Ascension and Indirect Object Advancement applied, but also Passive. Note that the possessor in this phrase is itself a possessed noun.

(65) 7a la ti y -at ti y -ajmul ti 7antz 7un-e, slekoh
 pt pt THE E3-PENIS THE E3-LOVER THE WOMAN pt-enc APART
 vo -b -at 7un. 86/282
 ROAST-be-pass pt.
 'As for the woman's lover's penis, it was roasted separately.'

The derivation of this sentence is as follows:

(66) vo yat ti yajmul ti antze ti yajmul ti 7antz PRO
 'roast' 'woman's lover's penis' 'woman's lover'

Level 1	verb	direct object	-----	subj.
Level 2	verb	direct object	indirect object	subj.
Level 3	verb+be	direct object chomeur	direct object	subj.
Level 4	verb+be+at	direct object chomeur	subject	subj. chom.

At this point, the direct object chomeur is topicalized, and as part of the topic yajmul ti 7antz antecedes the final subject, which is realized as zero.

Thus, the grammar of Tzotzil allows the topicalization of the entire possessive phrase (possessed NP and possessor), which is after all a coherent semantic unit, but which would not be a surface syntactic unit were it not for the combined effect of a copy version of Possessor Ascension and the fact that the original possessor may antecede the copy.

6.0 Conclusion

We have argued for a fully productive rule of Copy Possessor Ascension which copies the syntactic possessor of the direct object as indirect object of the clause. This indirect object must then advance, like other indirect objects. The anaphoric relation between the original possessor and the copy may be resolved by omitting either the copy or the original in surface structure. Thus, the possessor may surface either as possessor of the final direct object chomeur or as a final direct object (or subject, if it passivizes).

FOOTNOTES

* Discussion of various aspects of this material at UCLA, Harvard, U. of Texas colloquia and at the 1977 AAA meeting, and comments by Laura Knecht and Jorge Hankamer on the written version have been a great help.

1 Tzotzil is spoken in Chiapas, Mexico. The data on which this paper is based comes from two main sources: the texts of Of Cabbages and Kings (Laughlin 1977) and my own field notes. The Tzotzil of both sources is that spoken in the municipio of Zinacantan. In addition, one sentence is cited from Cowan (1969) which describes the Tzotzil of Huixtan. Examples from Laughlin (1977) are cited by tale and page number. My principal consultant was Maryan Lopis Chiku7. The orthography used here is that used in Laughlin (1977). j represents the voiceless glottal spirant, x the voiceless alveopalatal spirant, tz and ch voiceless alveolar affricate and palatal affricate respectively. These correspond to h, š, č, and č of Laughlin (1975) and Aissen (to appear). ʔ represents glottal stop and C' glottalized consonants. Translations of examples from Of Cabbages and Kings are sometimes Laughlin's and sometimes mine. Glosses are intended as an aid to the reader; for information about the meaning and use of these lexemes and morphemes, a dictionary or grammar should be consulted (e.g. Laughlin 1975, Delgaty and Sánchez 1978, Cowan 1969, Haviland 1977).

Abbreviations used in the glosses are the following: ipf-imperfective aspect; pf-perfective aspect; perfp-perfect participle; E1(2,3)-ergative first (second, third) person; A1 (etc)-absolute first (etc) person; 1 (etc) pl-first (etc) person plural; pass-passive; Q-yes/no question particle; enc-enclitic; pt-particle; i-intransitive verb stem; oblq-oblique nominal; V-vowel. The morpheme -be is glossed simply as -be. Its function is explained in the paper.

2 The first claim is also made in Haviland (1977) where a rule like Possessor Ascension is posited.

3 There are two situations which call for absolute suffixes in Zinacantan Tzotzil. First, in transitive verb forms when the subject is second person and the object first, the absolute suffix is required. Second, when the verb bears no aspectual prefix, the transitive object or intransitive subject must be cross-referenced by the absolute suffix.

4 There are basically two ways a nominal may be marked for its grammatical relation in the clause (aside from word order). It may be object of the preposition ta which marks instruments, locatives, time phrases, directionals. Or it may be possessor of a so-called relational noun. Relational nouns indicate relations like agent, cause, benefactive, and others. E.g. formed to the stem -u7un are k-u7un, 7av-u7un, y-u7un 'by me, you, him' or 'because of me, you, him.'

5 The alternative is to assume no advancement rule and therefore that the statement of Agreement (and Passive) refers to a disjunction of syntactic or notional classes which are hierarchically ordered (i.e. agreement with the indirect object, if there is one; if not, with the direct object).

6 It is possible that these sentences have a reading in which a third person benefactive is understood; i.e. that in underlying structure, these sentences contain a pronominal indirect object which corresponds to a third person notional benefactive. In direct questioning, speakers have rejected sentences like (36-8), indicating that such a reading is not suggested out of context. The appropriate context might bring out such a reading.

7 This may represent an oversimplification since there are some cases in texts where the possessor ascension construction is not used with third person possessors. Judgements of consultants indicate that it is required in many circumstances; hopefully further research will reveal the circumstances in which it is not. The great majority of textual examples show the construction.

8 This suggests that Possessor Ascension may be constrained not to create an indirect object chomeur. If such a constraint can be shown to be correct, it will constitute additional evidence that possessor indirect objects are not underlying indirect objects, but derived ones.

9 Note that this result would not follow automatically if pronouns were analyzed as being derived from full NPs by a syntactic rule of Pronominalization.

10 While it is attractive to think that independent principles of anaphora account for the zero-realization of one or the other of these nominals, it is not clear how to make this work. Note that we have made the following two assumptions: 1) third person surface pronouns (zero) are represented in underlying structure as pronominal elements. I.e. there is no syntactic rule of Pronominalization. 2) Copy Possessor Ascension results in there being two fully specified instances of, for example, pukuj in the syntactic structure. Given this, there is no rule of Pronominalization available to reduce one or the other pukuj to zero. This must be assumed to be accomplished by a distinct rule. Adopting a theory in which assumption 2 is abandoned is a possibility, but the question of substance is whether the anaphoric relation which holds between two deep nominals can be dealt with in the same way as that which holds between two elements, one of which is added to the clause syntactically.

11 The significance of this sort of sentence was pointed out to me by Nicolas Hopkins.

12 There is a flaw in this argument as it stands, but one which cannot be corrected on the basis of the data available to me now. The argument in the text depends on the assumption that the only available derivations for the crucial examples (59) and (65) are those indicated in the text where the indirect object is added to the clause by Possessor Ascension. But an alternative derivation in which the indirect object is a deep indirect object corresponding to a notional benefactive is not ruled out. Thus it is not necessary to assume Copy Possessor Ascension to account for these examples. Crucial examples would be ones in which the indirect object could not correspond to notional benefactive (nor to anything other than possessor of the direct object). Topica-

lization of possessive phrases like those of (49) (inanimate possession) is probably the appropriate place to look.

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WH-QUESTIONS, RELATIVIZATION, AND CLEFTING IN YUCATEC MAYA¹

Victoria Reifler Bricker
Tulane University

In some Mayan languages, such as Jacalteco, Kanjobal, Chuj, Zinacanteco Tzotzil, Pocomam, Ixil, Mam, Cakchiquel, and Tzutujil (Butler and Butler 1977:42, 50-51; Craig 1976, 1977:14, 212-213; Lengyel 1978:87-88; Robertson 1977:111-112; Smith-Stark 1976:56, 1978), WH-questions, relative clauses, and cleft sentences formed on third person agents of transitive verbs seem to change the verb from the active to the antipassive voice. The evidence for this change is (1) deletion of the person marker for one of the arguments, (2) addition of a -(V)n suffix, which has been identified as an antipassive suffix in several Mayan languages (cf. Smith-Stark 1978), and (3) the verb becomes intransitive and takes only the B set of person markers. The principal function of this apparent voice change seems to be to disambiguate sentences that have undergone clefting and question and relative clause formation (Craig 1976, 1977:14, 211-213).

Craig (1976, 1977:14, 212-213) and Robertson (1977:111-112) claim that it is the agent person marker that is deleted. Craig (1977:14) gives examples from Jacalteco that support this interpretation:

mac xawila
who you saw
who asp.-B3-A2-see-suff.
'Whom did you see?'

mac xcach mak-ni
who you hit-suff
who asp.-B2 hit-ant.
'Who hit you?'

The agent person marker (s-) has obviously been deleted in the second example. The result is more like a passive than an antipassive construction in the sense that the patient has become the grammatical subject of an intransitive verb.

Lengyel (1978:87-88) and Smith-Stark (1978) argue that it is the patient, not the agent, that is deleted or demoted. Smith-Stark cites examples from languages in which the voice change occurs only when both arguments are in the third person. Zinacanteco Tzotzil is such a language: