

The Structure of Jacaltec

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11. The construction with the aspectual ichi 'to begin' and the time adverbial expressions is different from that of manner adverbial sentences in that there is no embedding of the main verb ichi and no helping verb.

13. Causative Constructions

The word 'causative' is used here in a broad sense and encompasses two types of constructions found with verbs of causation--complement causatives which are complex structures with complement sentences, and predicate raising causatives which are collapsed simplex sentences.

The complement sentence construction of a verb of causation like iptze 'to oblige, to force' is examined in Section 1. A contrast is made in Section 2 with the predicate raising construction of the verb a'a 'to make'. This study provides new data on predicate raising causatives which are interesting because of the VSO word order of Jacaltec and its independent causative verb. With these additional data, a new universal rule of Clause Union is formulated to account for the derivation of such causative sentences.¹

Section 3 presents an indirect causative construction which also uses the verb a'a 'to make', but in which Clause Union is limited to causative sentences with intransitive embedded clauses. In the course of the discussion on the status and origin of the surface structure subject of such sentences, a rule of Advancement is proposed to derive the subject from an instrumental type of prepositional phrase.

1. COMPLEMENT CAUSATIVES

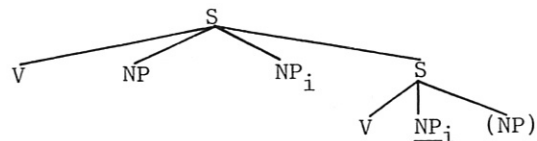
1.0.

All verbs of causation take aspectless complement sentences. This section presents the verb iptze 'to oblige, to force' as an example of this group of verbs.² A rule of Infinitive Float which accounts for the variation in word order will be

recalled.

In the deep structure of the causative construction with *iptze* the embedded clause is a sentence complement, and the transitive verb of causation takes an animate NP for a subject and an object, as is shown in tree diagram (1):³

(1)



That the coreferential NPs co-occur in surface structure supports the postulate of two animate NPs in the main clause.

1.1. Transitive Embedded Clauses

If the embedded clause is transitive, the construction is of the aspectless embedded type. The only rule to apply is the late rule of Noun Classifier Deletion:

- (2) a. *ch- \emptyset -(y)-iptze naj ix_i
 asp-A3-E3-force cl/he cl/her
 hach s-mak-ni ix_i
 A2 E3-hit-suff cl/she
 'he forces her to hit you'

- b. ch- \emptyset -(y)-iptze naj ix
 asp-A3-E3-force cl/he cl/her
 hach s-mak-ni ----
 A2 E3-hit-suff N Cl Del
 'he forces her to hit you'

1.2. Intransitive Embedded Clauses

If the embedded clause is intransitive, Equi-NP Deletion applies to its subject and the verb turns into an infinitive, as was shown in Chapter 11 Equi-NP Deletion:

- (3) ch- \emptyset -(y)-iptze naj ix munlahoj
 asp-A3-E3-force cl/he cl/her to work
 'he forces her to work'
- (4) ch-ach w-iptze cañalwoj
 asp-A2 E1-force to dance
 'I force you to dance'

The rule of Equi-NP Deletion is not obligatory, so there is a secondary construction with an embedded complement sentence:

- (5) xc-ach w-iptze wa'oj/ha-wa'i
 asp-A2 E1-force to eat/E2-eat
 'I forced you to eat'
- (6) x- \emptyset -(y)-iptze naj ix cañalwoj/s-cañalwi
 asp-A3-E3-force cl/he cl/her to dance/E3-dance
 'he forced her to dance'

The embedded intransitive may be a passive verb:

- (7) xc-ach w-iptze il-lax-øj y-u
 asp-A2 E1-force see-PASS-fut E3-by
 ya' doctor
 cl/the doctor
 'I forced you to be seen by the doctor'

Passive may also occur in the main clause (8) or simultaneously in the upper and lower clauses (9):

- (8) xc-ach iptze-lax munlahoj
 asp-A2 force-PASS to work
 'you were forced to work'
- (9) xc-ach iptze-lax añte-lax-øj
 asp-A2 force-PASS cure-PASS-fut
 'you were forced to be cured'

Sentences with intransitive infinitives are found in three different word orders:

- (10) a. chiptze ya' naj munlahoj
 forces cl/he cl/him to work
 'he forces him to work'
- b. chiptze ya' munlahoj naj
- c. chiptze munlahoj ya' naj

The different positions of the infinitive munlahoj are the result of the operation of Infinitive Float discussed in Chapter 11, Section 3.4. Infinitive Float.

1.3. Summary

Complement causatives are complex sentences which behave like other complex sentences with aspectless complement sentences. A rule of Equi-NP Deletion deletes the subject of an intransitive embedded verb, after which the infinitival form of the embedded verb may "float" to the left of its original position while no rule of Equi-NP Deletion applies in transitive embedded clauses. Passive was shown to apply freely to both main and embedded verb.

2. PREDICATE RAISING CONSTRUCTION

2.0.

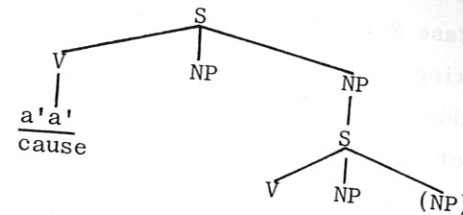
The other type of Jacaltec causative construction is the predicate raising sentence containing the causative verb a'a' 'to make'.⁴ As will be shown, this causative construction exhibits the properties of simplex sentences, like the predicate raising constructions analyzed by Aissen (1974). In order to account for the collapsing process which produces the Jacaltec simplex sentence a new analysis of predicate raising constructions will be proposed in the form of a Clause Union rule. This rule will offer a universal analysis of collapsed causative constructions.

2.1. Bi-sentential Deep Structure

The deep structure postulated for the causative construction

with a'a' is shown in tree diagram (11):

(11)



The transitive causative verb a'a' takes a sentential object. Syntactic arguments for postulating an underlying bi-sentential structure for the causative sentences with a'a' are difficult to find in Jacaltec, but the bi-sentential nature of sentences with two verbs of action is probably not a controversial point.

2.2. Intransitive Embedded Clauses

2.2.1. Word Order

The intransitive embedded verb is in the infinitive form and stands between the subject of the main verb and its own deep structure subject, as shown in pattern (12a) and sentence (12b):

- (12) a. [V NP V NP]
- b. cha' ix xewoj naj
 makes cl/she to rest cl/him
 'she makes him rest'

There is no reordering of the constituents. The causative verb a'a' is an independent finite verb; it is neither an affix on the intransitive verb nor an auxiliary type of verb. The word order [V NP V NP] does not conform to the postulated word order of predicate raising constructions [V V NP NP] in which the verbs are contiguous.

2.2.2. The Structure of a Simplex Sentence

Predicate raising sentences have the structure of a simplex

sentence. The arguments supporting the simplex structure analysis are based on the application of the three clause bounded rules of Case Marking, Passive, and Reflexivization.

A. Case Marking

The embedded subject of an intransitive verb becomes the object of the causative verb. It is consequently marked for the absolutive case. This is obvious when it is a first or second person absolutive case marker, as in examples (13) and (14):

(13) ch-ach w-a' xewoj
asp-A2 E1-make to rest
'I make you rest'

(14) ch-oh y-a' naj munlahoj
asp-A1pl E3-make cl/he to work
'he makes us work'

B. Passive

The embedded subject of an intransitive may become the subject of a passive causative verb:

(15) ch-Ø-'a-lax xewoj naj
asp-A3-make-PASS to rest cl/he
'he is made to rest'

(16) ch-ach a-lax munlahoj
asp-A2 make-PASS to work
'you are made to work'

C. Reflexivization

Reflexivization is a clause-bounded rule in Jacaltec. If the embedded subject of an intransitive is coreferential with the subject of the causative verb, Reflexivization applies, showing that the two NPs have become clause mates, as in examples (17) and (18):

(17) cha' camoj sba naj
makes to die himself cl
'he lets himself die'

(18) chawa' camoj ha ba
you make to die yourself
'you let yourself die'

Sentences with reflexives take the permissive reading of 'let'.

2.2.3. Not a Subject-to-Object Raising Rule

The three features discussed above—Case Marking, Passive, and Reflexivization—could also support the alternative hypothesis of a Subject-to-Object Raising rule. However, an argument based on the word order of the derived sentence can be made against the latter hypothesis.

If the raising operation only raised the lower subject NP, one would expect the raised NP to appear precisely in the object position of that clause. The expected word order would be [V NP NP V]. However, this is not the word order of the causative sentence. The object NP consistently appears after the lower verb. It remains in its underlying position, in which it functions as the object (19), passive subject (20), or reflexive object (21) of the main causative verb:

(19) a. cha' ix xewoj naj
makes cl/she to rest cl/him
'she makes him rest'

b. *cha' ix naj xewoj

(20) a. ch'alax xewoj naj
is made to rest cl/he
'he is made to rest'

b. *ch'alax naj xewoj

- (21) a. cha' camoj sba naj
 makes to die himself cl
 'he lets himself die'

b. *cha' sba naj camoj

2.2.4. Secondary Word Order

Simplex causative sentences with an intransitive infinitive exhibit a secondary word order in which the infinitive appears next to the causative verb:

- (22) cha' xewoj ix naj
 makes to rest cl/she cl/him
 'she makes him rest'

Advocates of a predicate raising analysis would consider the word order [V V NP NP] of example (22) to be the primary one and the word order [V NP V NP] of example (19a) to be derived from it. This analysis would require postulating two movement rules of the verb. The first rule--the rule of Predicate Raising proper--would place the verb to the immediate right of the causative verb. A second rule of scrambling would later move the verb again, which would account for the alternative word order.

However the alternation of word order could be handled by the independently motivated rule of Infinitive Float which was described in Chapter 11, Section 3.4. Infinitive Float.

Another argument against postulating [V NP V NP] as the basic word order is the impossibility of analyzing the transitive counterpart of the causative construction as having undergone Predicate Raising, as will be discussed in subsection 2.3.2. below. Instead of one rule of Clause Union which would account for both constructions, two rules would have to be postulated--Predicate Raising for the intransitive construction and Clause Union for the transitive one.

It will therefore be assumed at this point that the basic

word order of causative sentences with a'a' is [V NP V NP] and that [V V NP NP] is a secondary order derived by the rule of leftward Infinitive Float.

2.2.5. An Additional Characteristic of Predicate Raising Constructions

In contrast to the complement causative constructions described in Section 1 in which Passive was seen to apply freely, there are no causative sentences with a'a' and a passive verb:⁵

- (23) a. xawa' maka' ha ba
 you made to hit yourself
 'you let yourself be hit'
- b. *xawa' maklaxoj ha ba
 you made to be hit yourself
- (24) a. xa' maka' sba naj
 made to hit himself cl
 'he let himself be hit'
- b. *xa' maklaxoj sba naj
 made to be hit himself cl

In sentences (23a) and (24a) the causative verb takes on the meaning of a concessive verb and is translated as 'let'. Although the meaning of the embedded clause is passive, the morphology of its verb is that of an active verb. These data on the Jacaltec causative construction provide an additional argument for the claim made by Aissen (1974) that the restriction on Passive in collapsed causative sentences is a universal one.

2.3. Transitive Embedded Clauses

2.3.1. Structural Characteristics

When a transitive clause is embedded under the causative verb a'a', the sentence has the following surface structure characteristics:

- A) the basic word order is [V NP V NP PP];
 B) the subject of the lower transitive verb is marked for an oblique case;
 C) the object of the lower transitive verb becomes the object of the causative verb;
 D) the transitive embedded verb is in an aspectless form.

Examples of such sentences are given below:

- (25) a. chintx'ah xil kape
 I wash clothes
 'I wash the clothes'
- b. xa' ix tx'aha' xil kape wet an
 made cl/she to wash clothes to me 1p
 'she made me wash the clothes'
- (26) a. scoc'tze ix wixim
 grinds cl/she my corn
 'she grinds my corn'
- b. xwa' coc'tze' wixim tet ix
 I made to grind my corn to cl/her
 'I make her grind my corn'

2.3.2. Word Order

As with embedded intransitive clauses, two word orders may be found. In the basic word order [V NP V NP PP] the two verbs do not stand next to each other, which is contrary to the claimed word order of predicate raising construction.

In the secondary word order the verbs are contiguous, in the pattern [V V NP NP PP]. Both word orders are given in examples (27):

- (27) a. cha' ix' ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'

- b. xa' ija' ix ya' tawet
 made to carry cl/she her water to you
 'she made you carry her water'

As was the case with the intransitive construction, the word order of sentence (27b), in which the subject NP of the causative verb intervenes between the two verbs, is taken as basic, and the word order alternation is analyzed as resulting from the existence of a rule of Infinitive Float.

The word order of the NPs corresponds to the word order of a simple sentence--S > O > IO--shown in example (28):

- (28) xa' naj ch'en melyu tet ix
 gave cl/he cl/the money to cl/her
 S O IO
 'he gave the money to her'

2.3.3. The Subject of the Transitive Embedded Verb Goes to an Oblique Case

The subject of the embedded sentence is clearly not raised alone to the object position of the main verb, as shown by the ungrammaticality of sentences *(29a,b) below:

- (29) a. *xc-ach y-a' ix ija' y-a'
 asp-A2 E3-make cl/she to carry E3-water
 'she made you carry her water'
- b. *xc-ach y-a' ix Ø haw-ija' y-a'
 asp-A2 E3-make cl/she A3 E2-carry E3-water

Example *(29a) would be the output of a rule of object raising that would extract the embedded subject and turn it into the object of the main clause. Example *(29b) would be the output of a copying rule, which would provide the main causative verb with an object which would be a copy of the embedded subject. Instead, the embedded subject goes to an oblique case--it becomes the indirect object of the causative verb, and as such the object of the dative preposition -et 'to'. Examples of

the dative construction are provided in the simple sentences (30), (31), and (32):

(30) x-∅-w-a' te' hum t-aw-et
asp-A3-E1-give cl/the book aug^t-E2-to
'I gave you the book'

(31) x-∅-(y)-al ix s-kumal
asp-A3-E3-say cl/she E3-criticism
naj w-et an
cl E1-to 1p
'she said criticisms of him to me'

(32) x-∅-s-ye naj cañal t-(y)-et
asp-A3-E3-show cl/he dance aug^t-E3-to
niχtej unin
small children
'he showed the dance to the children'

Examples of the embedded subject of a transitive becoming the object of the dative preposition were given in sentences (25b), (26b), and (28) above.

2.3.4. The Object of the Transitive Embedded Verb Becomes the Object of the Main Verb

The object of the embedded transitive verb keeps the function of object but becomes the object of the main verb.⁶ It then undergoes reflexivization if it is coreferential with the subject of the main causative verb:

(33) a. ch-in ha-maka
asp-A3 E2-hit
'you hit me'

b. x-∅-w-a' maka' hin-ba t-aw-et
asp-A3-E1-make to hit E1-self aug^t-E2-to
lit: I make you hit myself
'I make you hit me'

Since Reflexivization is a clause bounded rule operating on

objects of simple sentences, the Reflexivization of sentence (33b) indicates that the causative sentence with a'a is a simple sentence in which the old subject of maka 'hit' has become the object of the causative a'a itself.

2.4. The Derivation of the Causative Construction: Clause Union

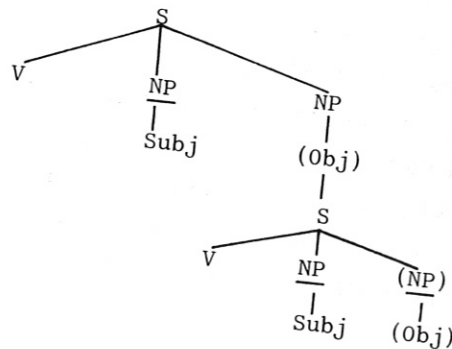
2.4.0.

As discussed in the previous section causative sentences with a'a are characterized by their simplex sentence structure. Such a characteristic has been analyzed in the literature as the result of an operation of predicate raising (Aissen, 1974). The predicate raising analysis postulates that all embedded verbs are raised to the position next to the causative verb. Since in Jacaltec the embedded verb does not appear raised next to the causative verb a new analysis will be proposed in the form of a universal rule of Clause Union.

2.4.1. Clause Union

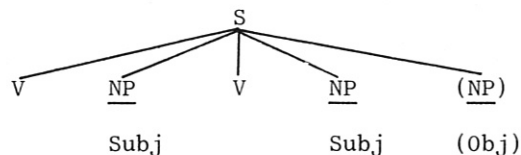
Clause Union consists of the collapsing of a complex structure into a simplex one. The operation joins two clauses already marked for grammatical functions. Before the collapsing operation the complex structure of the causative sentence is roughly as diagrammed below:

(34)



When the collapsing process of Clause Union applies to structure (34), it produces the derived structure (35):

(35)



The sentential object node is deleted, and the constituents of both clauses are directly dominated by the same sentence node.

Collapsing is followed by several Clause Union adjustments.

2.4.2. Clause Union Adjustments

If one makes the assumption that a simplex sentence may have only one finite verb, one subject, and one object, these adjustments may all be predicted. Adjustments are needed in the collapsed causative constructions because of the presence of two verbs and two subjects:

(36) V S *V *S (0)

The adjustments affect the second of the two constituents marked for the same function which are the starred constituents in pattern (36).⁷ In order to eliminate the doubling of the predicative function, the second verb loses all inflections and becomes an infinitive.

The assignment of a new grammatical relation to the embedded subject follows the Hierarchy of NPs presented by Keenan and Comrie (1972), which orders NPs as follows: subject > object > indirect object. The old subject of an intransitive is assigned the function of object which is the next available position in the Hierarchy:

(37) V S V *S----V S V 0

It functions then as the object of the main verb. The old subject of a transitive is assigned the function of indirect object which is also the next available position in the hierarchy in the presence of an NP already marked for the function of object:

(38) V S V *S 0----V S V 0 IO

The old object of an embedded transitive keeps its function of object but changes from being the object of the embedded verb to being the object of the causative verb.

2.4.3. Universal Operation of Clause Union

An alternative analysis of the Jacaltec phenomena may be proposed. The changes undergone by the subjects of the embedded clauses could alternatively be said to result from a restriction on the doubling of the same case marker in collapsed sentences.

Since all subjects--subjects of aspectless embedded clauses as well as subjects of intransitive main verbs--are assigned an ergative case marker, the co-occurrence of two ergative markers could be said to be the motivation for the readjustment:

(39) V NP V NP (NP)
erg *erg (abs)

Case assignment would have to have occurred before the rule of Clause Union.

Two arguments against this analysis can be formulated. First, the analysis would imply that case marking is a deep phenomenon in Jacaltec, which it is not. This was discussed in Chapter 3 Case Marking. Second, it would not recognize the universal character of the operation of Clause Union in causative sentences.

The readjustments which follow the collapsing of the

complex structure can all be accounted for naturally if they are formulated in terms of the doubling of functions. A formulation based on the clash of functions rather than of case markers makes two predictions. First, it predicts that not only the subject NP, but also the verb, will be affected. Second, it predicts to which function the old subjects are assigned: subjects of intransitives are universally reassigned the function of object, while subjects of transitives are universally reassigned the function of indirect object.

2.4.4. Word Order Principle⁸

After the collapsing of the causative complex structure, the old subject NPs of the embedded clause appear in the position which corresponds to their new function of either direct or indirect object. If a principle of word ordering is established, no rule of extraposition is necessary to account for the placement of the old subject of a transitive which fulfills in surface structure the new function of indirect object. The word order principle would have to be language specific and determine how constituents appear in surface structure.

The Jacaltec Word Order Principle is:

(40) V S O IO

The Word Order Principle makes two predictions. First, it implies that there can be only one NP for each function/position in a simple sentence. From this it follows automatically that readjustments are needed following the application of Clause Union to eliminate doubling of grammatical relations. Second, it accounts for the postposing of the old subject.

3. INDIRECT CAUSATIVE CONSTRUCTION

3.0.

The collapsed causative construction which was the topic of Section 2 is restricted to sentences in which the subject is a direct causative agent and the action caused a durative action. A different construction containing the causative verb a'a', an indirect agent, and a punctual action is described in this section.

3.1. Durative and Punctual Actions, Direct and Indirect Agents

The causative construction a'a' is used in the case of a direct agent causing somebody to perform an action. The action to be performed is a durative action--it requires time and physical effort. Examples of durative actions are:

- | | | |
|------|--------------------|----------------------------|
| (41) | i'o'cañ kalem | 'to sweep the garbage' |
| | i'o'tij si' | 'to bring back wood' |
| | ija' ha' | 'to carry water' |
| | tx'aho' xil kape | 'to wash clothes' |
| | sub munlabal | 'to clean pots' |
| | monte' nixtej unin | 'to take care of children' |

They contrast with punctual actions (42) and mental activities which require time (43):

- | | | |
|------|------------------|---------------------|
| (42) | a'a'coj boc wi'e | 'to put on a hat' |
| | tiyoxli tet anma | 'to thank people' |
| | peba te' pulta | 'to close the door' |
| | a'a'can munil | 'to quit the job' |
| (43) | cuyu abxubal | 'to earn Jacaltec' |

The agent of a causative verb may be direct or indirect. The following combinations of agent and action are found in Jacaltec--

A. direct agent, durative action

- (44) xwa' ija' wa' tawet
I make to carry my water to you
'I make you carry my water'

B. indirect agent, punctual action

- (45) hin mam x'a'ani wacanoj hin munil
 my father made I leave my work
 'my father made me leave my work'
 'because of my father I left my work'

C. direct agent, punctual action:

- (46) schej naj hawanicoj ha boc wi'
 ordered cl/he you carry your hat
 'he made you wear your hat'
 'he ordered you to wear your hat'

There is no causative sentence with a'a' when the agent is a direct causative agent and the action is a punctual action. The causative construction used in this case is a complement causative with a verb of causation like chej 'to order', as shown in example (46).

3.2. Characteristics of Indirect Causative Constructions

3.2.0.

The indirect causative construction with the causative verb a'a' differs from the direct causative construction described in the previous section in the four ways listed below and expanded in the following subsections.

A) Agent (3.2.1)

The indirect agent is obligatorily preposed to the left of the whole sentence. The indirect causative agent may be an inanimate noun.

B) Causative Verb (3.2.2)

The verb lacks a subject case marker and is marked with the suffix -n(i).

C) Intransitive Embedded Clause (3.2.3)

If the lower clause is intransitive, it undergoes Clause Union: that is, the subject NP of the intransitive verb becomes the object of the main causative verb and is consequently marked for absolutive case.

However, the case marker appears either in object clitic position on the causative verb or between the two verbs.

- D) Transitive Embedded Clause (3.2.4)
 If the verb is transitive the embedded clause is a complement sentence of the type CS#2.

3.2.1. Agent

The fact that the indirect causative agent is obligatorily preposed is shown by the ungrammaticality of sentence *(47b):

- (47) a. hin mam x'a'ani wacanoj hin munil
 my father made I leave my work
 'my father made me leave my work'
 b. *xa' hin mam wacanoj hin munil
 made my father I leave my work
 'my father made me leave my work'

Sentence (47) means that the father did not make any request and could be unaware of his causing such an action to take place. He could be sick and require the presence of the speaker, so that the speaker has to stop working in order to take care of him. The sentence means literally 'because of my father I had to leave my work'.

The ungrammaticality of sentence *(47b) contrasts with the grammaticality of the direct causative construction (48a). Example (48b) is a clefted sentence in which the agent is simply emphasized:

- (48) a. xa' ix ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'
 b. ha' ix x'a'ani ija'
 cleft cl/she make to carry
 ya'
 her water
 'it is she who made you carry her water'

It is common to find inanimate nouns as indirect agents in the indirect causative construction:

- (49) skani x'a'ani hin elojtij yihtaj
noise made I come out outside
'the noise made me come out'
- (50) ka' x'a'ani hin canoj yul te' #ah
heat made I stay in cl/the house
'the heat made me stay inside the house'
- (51) tzalalal x'a'ani hin okoj
happiness made I cry
'happiness made me cry'
- (52) xiwcilal chach a'ani cuycunuj
fear you made to shake
'fear made you shake'

In simple sentences direct inanimate agents may only be expressed in an agentive phrase as objects of the preposition -u 'by'. In the pairs of examples below, the use of the direct inanimate agent in a simple sentence (53a, 54a) is contrasted to the use of the indirect inanimate agent in a causative sentence (53b, 54b):

- (53) a. xtaj xil kape yu tz'ayic
dried clothes by sun
lit: the clothes dried by the sun
'the sun dried the clothes'
- b. tz'ayic x'a'ani tajoj xil kape
sun made to dry clothes
lit: the clothes dried because of the sun
'the sun made the clothes dry'
- (54) a. x'ay ixim awal yu cake
fell cl/the corn by wind
lit: the corn fell by the wind
'the wind knocked down the corn'

- b. cake x'a'ani-ayoj ixim awal
wind made-fall cl/the cornfield
lit: the corn fell because of the wind
'the wind made the corn fall down'

In examples (53a) and (54a) the sun and the wind are considered to be the direct agents causing the actions; in the causative sentences (53b) and (54b) they are treated as indirect causative agents.

3.2.2. Causative Verb

The causative verb of the indirect causative pattern always lacks the ergative marker corresponding to its subject. This absence is signaled by the appearance of the stem initial glottal stop and the complementary presence of the suffix -n(i), which results in the form x'a'ani.

3.2.3. Intransitive Embedded Clause

The complement sentence of the indirect causative verb undergoes Clause Union, as did the complement sentence of the direct causative construction. The lower verb appears in the infinitive, and the lower subject becomes the upper object marked for absolutive.

A characteristic of the indirect construction is that the object marker can be found in two different positions. It may be in object clitic position on the main causative verb or between the two verbs:

- (55) a. cake xcin a'ani ayojtij swi'
wind me(A1) made to come down its top
te' #ah
cl/the house
'the wind made me come down from the roof'
- b. cake x'a'ani hin ayojtij swi' te' #ah

- (56) a. munil xcin a'ani toj chinabul
 work me(A1) made to go Huehuetenango
 'work made me go to Huehuetenango'
- b. munil x'a'ani hin toj chinabul

The object case marker in sentences (55b) and (56b) has not been cliticized in the object clitic position after the aspect marker of the causative verb.

The fact that the absolutive case marker is allowed to remain behind the verb is at least partly due to the absence of an ergative case marker in the verb form. The A > E Ordering Constraint discussed in Chapter 3, Section 4. Case Agreement is respected. The alternation of absolutive placement in examples (55) and (56) affects only the case marker. The object NP itself remains in the same position:

- (57) a. cake x'a'ani ayojtij naj swi'
 wind made to come down cl/him its top
 te' Hah
 cl/the house
 'the wind made him come down from the roof'
- b. *cake x'a'ani naj ayojtij swi' te' Hah

3.2.4. Transitive Embedded Clause

A transitive embedded clause does not undergo Clause Union and remains as an aspectless embedded complement sentence. Example (58) shows the obligatory collapsing operation in a direct causative construction in contrast with the complex structure containing an aspectless embedded clause in the indirect causative example (59):

- (58) a. xa' ix ija' ya' tawet
 made cl/she to carry her water to you
 'she made you carry her water'

- b. *xa ix hawija' ya'
 made cl/she you carry her water
 'she made you carry her water'
- (59) a. *hin mi' x'a'ani cuyu' abxubal
 my mother made to learn Jacaltec
 wet an
 to me 1p
 'my mother made me learn Jacaltec'
- b. hin mi' x'a'ani hin cuyni abxubal
 my mother made I learn Jacaltec
 'my mother made me learn Jacaltec'

3.3. On the Subject of the Indirect Causative Construction

3.3.0.

In the absence of an NP between the causative verb a'a' and the second verb, the indirect causative agent preposed to the left of the whole sentence is the only NP which could be analyzed as the subject of the causative verb.

3.3.1. Like a Subject

The indirect causative agent shares with clefted subjects the absence of ergative case agreement on the verb which is complemented by the suffixation of -n(i):

- (60) ha' ix x'ilni naj
 cleft cl/she saw cl/him
 'it is she who saw him'
- (61) ha' naj xil ix
 cleft cl/him saw cl/she
 'it is him that she saw'

The correlated deletion of the ergative case marker and suffixation of -n(i) were discussed in Chapter 7 Disambiguation. They occur specifically when an operation of movement or deletion affects the subject of a transitive.

3.3.2. Unlike a Subject

In first and second person the indirect causative agent is unlike clefted subjects. Clefted first and second person are characterized by the absence of deletion of the ergative case marker and subsequent lack of suffixation of -n(i) on the verb:

- (62) a. hach x- \emptyset -a-watx'e hun-tu'
 you asp-A3-E2-make one that
 'it is you who made that'
- b. *hach x- \emptyset - -watx'e-n hun-tu'
 you asp-A3-DEL-make-suff one that
 'it is you who made that'

However, a sentence initial first or second person indirect agent is marked by the absence of the ergative subject marker and the presence of the suffix -n(i):

- (63) a. hayin x- \emptyset - -a'a-ni \emptyset s-cuy-ni
 I asp-A3-DEL-make-suff A3 E3-learn-suff
 naj abxubal
 cl/he Jacaltec
 'I made him learn Jacaltec'
 'because of me he learned Jacaltec'
- b. *hayin x- \emptyset -w-a' \emptyset s-cuy-ni
 I asp-A3-E1-make A3 E3-learn-suff
 naj abxubal
 cl/he Jacaltec
 'I made him learn Jacaltec'

Unlike other subjects of transitive verbs the indirect agent may be an inanimate NP. In Chapter 2, Section 3. Voices there was a discussion of the restriction on the animacy of subjects of transitive verbs. Example (55a) which shows an inanimate, indirect causative agent at the head of the sentence will be repeated here:

cake xcin a'ani ayojtij swi'
 wind me made to come down its top
 te' Hah
 cl/the house ,

'the wind made me come down from the roof'

3.3.3. An Advancement Rule⁹

The indirect agent of a causative sentence is not a deep structure subject of the causative verb a'a'. It is derived from an agentive prepositional phrase by a rule of Advancement. The derived subjects are marked by an idiosyncratic behavior which distinguishes them from the deep structure subjects.

The advancement of indirect agents in causative constructions is to be considered with the Advancement rule of instrumental objects of prepositions undergoing Question. The latter was discussed in Chapter 1, Section 3. Question. While instrumentals are objects of the preposition -u in declarative sentences, they appear as subjects of the transitive verbs when they are questioned:

- (64) a. xintzoc'ic'oj te' te' yu
 I cut out cl/the tree with
 ch'en machit
 cl/the machete
 'I cut the tree with a machete'

- b. *xtzoc'ic'oj ch'en machit te' te'
 cut out cl/the machete cl/the tree
 (the machete cut the tree)

- c. tzet xtzoc'nic'oj te' te' hawu
 what cut out cl/the tree by you
 (what cut the tree by you?)
 'what did you cut the tree with?'

In both the instrumental and the indirect causative construction the advanced NP which appears to the left of the

whole sentence as a surface structure subject NP may not conform to the selectional restrictions of transitive verbs, since both may be inanimate.¹⁰

4. CONCLUSIONS

Jacaltec has an independent causative verb a'a which is neither an affix nor an auxiliary and which functions as a main finite verb. It is used in two different causative constructions, one in which a direct agent is the cause of a durative action requiring time and physical effort, and one in which an indirect agent is the cause of a punctual action or a mental activity.

In the context of the first construction a rule of Clause Union has been proposed to account for the collapsing of the complex bi-sentential causative sentence into a simplex sentence. The rule of Clause Union is a reformulation of the rule of Predicate Raising which has been discussed in the literature; it provides a universal treatment of causative constructions.

Clause Union joins two clauses in which NPs are already marked for grammatical functions. Once the sentence has been collapsed into a simplex sentence, readjustments eliminate the doubling of functions. The second of two constituents marked for the same grammatical function is assigned to a new function.

The adjustment of the old subjects of the embedded clause follows the universal hierarchy of NPs. The subject of an intransitive verb becomes an object, and the subject of a transitive verb becomes an indirect object due to the presence of a constituent already marked for the object function.

The NPs are reordered according to language specific Word Order Principles. In Jacaltec the order corresponds to

the universal hierarchy of NPs.

The embedded verb universally loses all inflections and becomes an infinitive. The reordering of the old embedded verb depends on the nature of the causative verb itself. In Jacaltec the causative verb a'a is an independent and fully inflected verb, and the two verbs do not stand next to each other. A rule of Infinitive float may, however, move the infinitive to the right of the main causative verb.

In the context of the second construction a rule of Advancement has been proposed to account for the presence of a clefted NP expressing the indirect causative agent. The rule of Advancement consists of making a surface structure subject out of an object of preposition. The clefted NP clearly does not inherit many of the properties of a subject in the sentence. Such an Advancement rule is parallel to the Advancement rule which applies to an instrumental object of a preposition when it is questioned.

NOTES

1. The approach taken in this chapter follows Aissen's study of causatives (1974). In her analysis she considers mostly SVO (Spanish and French) and SOV languages (Turkish and Japanese) with just a mention of a VSO language (Maori). More important than the type of word order, Jacaltec offers an interesting example of a causative verb which is neither an affix (as in Turkish and Maori) nor an auxiliary type verb (as in French). No causative verb of an independent type is discussed by Aissen.

2. iptze 'to force' is morphologically composed of a noun and the causative derivational suffix -tze:

(a) caw ay y-ip naj
very exist E3-strength cl

'he is very strong'

(a') ip-tze
strength-causative suffix

'to force'

Some causative verbs are derived from adjectives:

(b) caj ha' ha'
hot cl/the water

'the water is hot'

(b') caj-tze
not-causative suffix

'to heat'

3. These sentence complements can optionally be introduced by the preposition yih, which is used in such a case as a complementizer. yih introduces indirect complements in simplex sentences with intransitive verbs:

(a) chin colwa y-iH hin-mi'
asp-A1 help E3-to E1-mother

'I help my mother'

(b) xc-ach y-iptze ix y-iH
asp-A2 E3-force cl/she E3-to

ha-cattalwi boj
E2-dance with

'she forced you to dance with her'

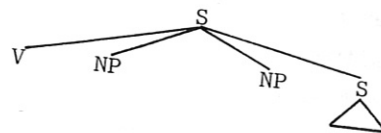
4. The verb a'a also means 'to give'. With this meaning it takes both inanimate and animate objects:

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

(b) xcach ya' ha mam tet naj
you he gave your father to cl/him
'your father gave you to him'

Sentences with animate objects can further take an aspectless sentence complement:

(c)



Examples of the complex structure (c) with a transitive embedded clause (d), an intransitive embedded clause (e) and an object incorporation construction (f) are given below:

(d) xa' ix xo' stx'aha' xil kape
gave cl/she cl/her she wash clothes
'she gave her to wash the clothes'

(e) xcach ya' ix munlahoj tet ya'
you she gave cl/she to work to cl/her
'she gave you to her(older woman) to work'

(f) xcach ya' ix i'o'caH kalem
you she gave cl/she to sweep trash
(tet ya')
(to cl/her)

'she gave you (to her/older woman) to sweep the trash'

Examples (d), (e), and (f) refer to the frequent lending and borrowing of children among neighbors and relatives to help with daily tasks.

With the meaning 'to give' one also can hear a sentence like:

- (g) xa' ix ijo' ha' wet an
gave cl/she to carry water to me 1p
'she gave me the job of carrying water'

ijo' ha' is an object incorporated expression which is treated as the object of the verb 'to give'.

5. The passive is not ungrammatical for all speakers. For some it is an acceptable secondary form. This is parallel to the situation noted in French by Aissen (1974). In one dialect of French Reflexivization is allowed to operate in an embedded clause, while in another it is not.
6. The informants even gave a telling translation of some causative sentences which reflected the new relation of the embedded object to the main verb. Instead of the expected Spanish sentence 'me hizo lavar ropa: she made me wash the clothes' they would say 'me dio ropa para lavar: she gave me clothes to wash'. See Note 4 for the difference in construction between the two uses of a'a' 'to make' and 'to give'.
7. In the collapsing operation of manner adverbial sentences it was the second verb which had become the main verb. This was probably due to the nature of the helping verb -u. See Chapter 12 Manner Adverbial Sentences for more details.
8. See Perlmutter and Postal's Relational Grammar (forthcoming).

9. idem.
10. Another instance of a derived subject was discussed in Chapter 10 A Promotion Rule. An animate subject was promoted to the function of subject of the intransitive aspectual ichi 'to begin'. In this case, too, the derived subject did not conform to the selectional restrictions of the verb since ichi 'to begin' takes only inanimate subjects in simplex sentences.