

The Structure of Jacaltec

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Relative Clause Formation, Chapter 11 Equi-NP Deletion, and Chapter 12 Manner Adverbial Sentences.

11. Equi-NP Deletion

Equi-NP Deletion is the operation which deletes a subject NP in an embedded clause under coreferentiality with either the subject or the object of a main clause. The different types of Equi-NP Deletions found in Jacaltec will be considered in this chapter. The infinitival complement sentence resulting from Equi-NP Deletion is presented in Section 1. Subject triggered cases of Equi-NP Deletion are treated in Section 2, while object triggered cases of such a deletion rule are treated in Section 3. Restrictions on the application of Equi-NP Deletion and a case of Backward Equi-NP Deletion in which the subject of the embedded verb triggers the deletion of the subject of the main verb are considered in Section 4.

1. INFINITIVAL COMPLEMENT SENTENCE

The rule of Equi-NP Deletion deletes the subject of an embedded clause, leaving the verb uninflected for person and suffixed with the irrealis suffix -oj:¹

(1) a. xc-ach to sajch-oj
asp-A2 go to play-suff
'you went to play'

b. *xc-ach to ha-sajchi
asp-A2 go E2-play
'you went to play'

(2) a. ch- \emptyset -(y)-oche naj ca \mathcal{H} alw-oj
asp-A3-E3-like cl/he to dance-suff
'he likes to dance'

- b. *ch-Ø-(y)-oche naj s-cañalwi
asp-A3-E3-like cl/he E3-dance
'he likes to dance'
- (3) a. xc-ach w-iptze munlah-oj
asp-A2 E1-force to work-suff
'I forced you to work'
- b. xc-ach w-iptze ha-munlayi
asp-A2 E1-force E2-work
'I forced you to work'

Sentences (1) and (2) correspond to constructions in which the application of the rule of Equi-NP Deletion is obligatory and sentence (3) to a construction in which it is optional.

If the main verb does not require the Equi-NP Deletion rule to apply, then the embedded intransitive clause is an aspectless embedded complement sentence in which the subject is marked ergative:

- (4) a. w-ohtaj hin-chemli
E1-know E1-weave
'I know how to weave'
- b. *w-ohtaj cheml-oj
E1-know to weave-suff
'I know how to weave'
- (5) a. ch-ach cabcoñ haw-añni haxca chew
asp-A2 hesitate E2-bathe because cold
ha' ha'
cl/the water
'you hesitate to bathe because the water is cold'
- b. *ch-ach cabcoñ añn-oj haxca chew
asp-A2 hesitate to bathe-suff because cold
ha' ha'
cl/the water
'you hesitate to bathe because the water is cold'

- (6) a. *y-ohtaj naji s-cañalwi naji
E3-know cl/he E3-dance cl/he
'he knows how to dance'
- b. y-ohtaj naj s-cañalwi ----
E3-know cl/he E3-dance N Cl Del
'he knows how to dance'
- c. *y-ohtaj naj cañalw-oj
E3-know cl/he to dance-suff
'he knows how to dance'

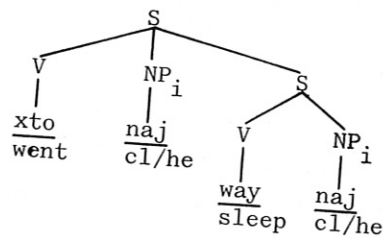
The absence of a coreferential noun classifier in the aspectless embedded intransitive clause of (6b) is due to the application of the rule of Noun Classifier Deletion and not that of Equi-NP Deletion, as signaled by the presence of an ergative marker.

2. SUBJECT TRIGGERED EQUI-NP DELETION

2.1. Verbs of Movement

Verbs of movement are one of the two groups of verbs which require Equi-NP Deletion. They are intransitive verbs which take a sentence complement:

(7) a.



- b. xto naj wayoj
went cl/he to sleep
'he went to sleep'

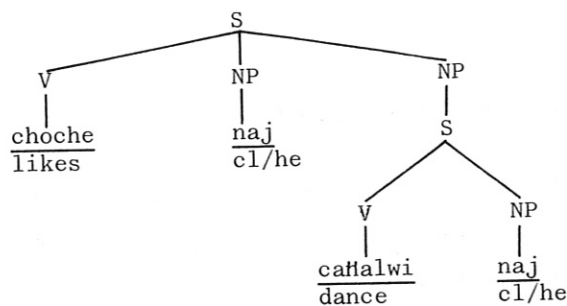
A list of the movement verbs is provided in Appendix C. Examples of this construction are:

- (8) xcach to aXnoj sti' ha' niman
 you went to bathe its mouth water big
 'you went to bathe by the river bank'
- (9) x'apni naj wayoj betu'
 arrived cl/he to sleep there
 'he arrived there to sleep'

2.2. Verbs of Desire

The other verbs requiring Equi-NP Deletion are the verbs of desire. These are transitive and take a sentential object:²

(10) a.



- b. choche naj cañalwoj
 like cl/he to dance
 'he likes to dance'

A list of verbs of desire is also provided in Appendix C. Examples of sentences in which the subjects are coreferential and Equi-NP Deletion applies are given below:

- (11) Xwa' tet wanma wayoj
 I give to my heart to sleep
 'I feel like sleeping'

- (12) skan ha c'ul sajchoj
 wants your stomach to play
 'you want to play'
- (13) sje hin c'ul bitnoj
 would like my stomach to sing
 'I would like to sing'

2.3. Deletion of Agent Only

Equi-NP Deletion does not apply to derived subjects of passive verbs embedded under either verbs of movement or verbs of desire. Once Passive has applied in the embedded clause, no deletion can affect the coreferential subject of a passive verb and the complement sentence is of the aspectless embedded type:

- (14) a. ch-in col-lax-øj
 asp-A1 help-PASS-suff
 'I am helped'
- b. *s-kan hin-c'ul col-lax-øj
 E3-want E1-stomach help-PASS-suff
 'I want to be helped'
- c. s-kan hin-c'ul hin-col-lax-i
 E3-want E1-stomach E1-help-PASS-stem aug^t
 'I want to be helped'
- (15) a. x-Ø-col-lax naj
 asp-A3-help-PASS cl/he
 'he was helped'
- b. *ch-Ø-(y)-oche naj col-lax-øj
 asp-A3-E3-like cl/he help-PASS-suff
 'he likes to be helped'
- c. ch-Ø-(y)-oche naj s-col-lax-i
 asp-A3-E3-like cl/he E3-help-PASS-stem aug^t
 'he likes to be helped'

- (16) a. x-Ø-mak-lax naj
asp-A3-hit-PASS cl/he
'he was hit'
- b. *s-je naj mak-lax-oj
E3-agree cl/he hit-PASS-suff
'he agreed to be hit'
- c. s-je naj s-mak-lax-i
E3-agree cl/he E3-hit-PASS-stem aug^t
'he agreed to be hit'

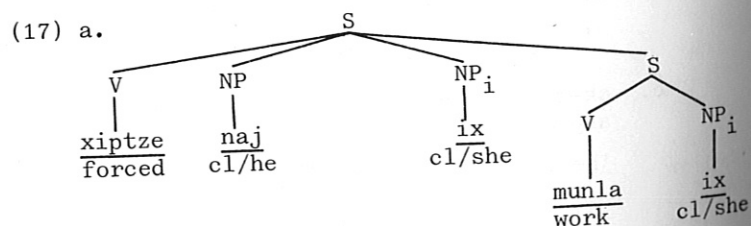
The absence of the coreferential noun classifier in (15c) and (16c) is due to the application of the rule of Noun Classifier Deletion which has left the third person ergative case marker s- on the verb.

The rule of Equi-NP Deletion applies only to subjects of active verbs. Since the NP triggering the deletion is always itself the subject of an active verb, the constraint appears to be that agent NPs trigger the deletion only of other agent NPs in an embedded intransitive clause. For Equi-NP Deletion to apply, both main and embedded subjects must be the controllers of the actions expressed by the verbs.

3. OBJECT TRIGGERED EQUI-NP DELETION

3.1. Verbs of Causation

Verbs of causation are transitive verbs which take a sentence complement. The object of the main verb is coreferential with the subject of the embedded verb and triggers its deletion:



- b. xiptze naj ix munlahoj
force cl/he cl/her to work
'he forced her to work'

Other examples of this causative construction are:

- (18) ch-oh s-chej ya' wayoj
asp-A1pl E3-order cl/he to sleep
'he orders us to sleep'

- (19) ch-ach hin-cuytze sajchoj
asp-A2 E1-teach to play
'I am teaching you how to play'

3.2. Optional Equi-NP Deletion

Unlike the obligatory Equi-NP Deletion rule triggered by a main subject, the Equi-NP Deletion rule triggered by a main object is not obligatory. Infinitival complement sentences resulting from Equi-NP Deletion alternate with aspectless embedded clauses. Examples (20) and (21) below with aspectless embedded clauses correspond to examples (18) and (19) above with infinitival complement sentences:

- (20) ch-oh s-chej ya' cu-wayi
asp-A1pl E3-order cl/he E1pl-sleep
'he orders us to sleep'

- (21) ch-ach hin-cuytze ha-sajchi
asp-A2 E1-teach E2-play
'I am teaching you how to play'

3.3. Deletion of Subjects of Passive Verbs

Equi-NP Deletion with verbs of causation can apply to the output of a passive transformation and delete a derived subject in the lower clause. This constitutes another difference between subject triggered and object triggered Equi Deletion:

- (22) a. ch-ach ahte-lax-i
asp-A2 cure-PASS-stem aug^t
'you are cured'
- b. xc-ach w-iptze ahte-lax-oj
asp-A2 E1-force cure-PASS-suff
'I forced you to be cured'
- (23) a. xc-in il-lax-i y-u ya' doctor
asp-A1 see-PASS-stem aug^t E3-by cl/the doctor
'I was seen by the doctor'
- b. xc-in y-iptze naj il-lax-oj y-u
asp-A1 E3-force cl/he see-PASS-suff E3-by
ya' doctor
cl/the doctor
'he forced me to be seen by the doctor'

Thus, when the NP triggering the deletion is the object of the main clause, there is no restriction on which NP it can delete in the embedded clause--an agent (subject of active verb) or a patient (subject of passive verb).

3.4. Infinitive Float

Once Equi-NP Deletion has applied to the intransitive subject and once the lower verb has turned into an infinitive, three alternative word orders can be found after the verb of causation:

- (24) a. CAUSE S O INF
b. CAUSE S INF O
c. CAUSE INF S O

These three possible word orders are illustrated in the examples below:

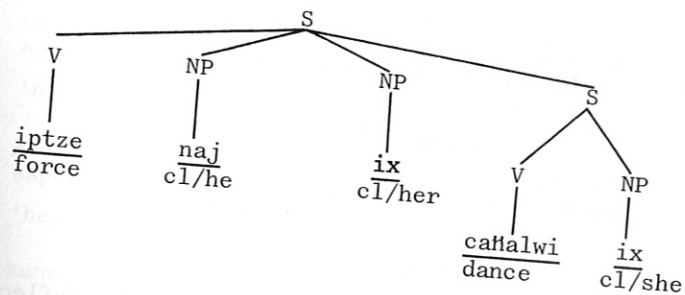
- (25) a. chiptze ya' naj munlahoj
forces cl/she cl/him to work
'she forces him to work'
- b. chiptze ya' munlahoj naj
- c. chiptze munlahoj ya' naj

The same alternation is found in sentences in which Reflexivization has occurred:³

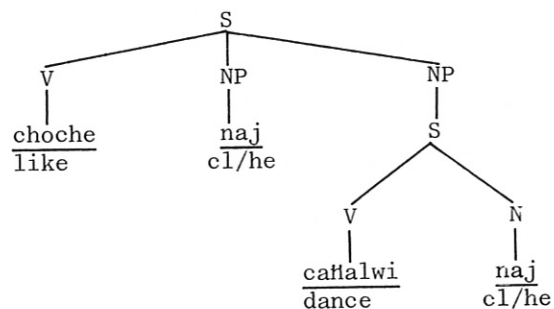
- (26) a. chincuytze sajchoj hin ba
I teach to play myself
'I teach myself how to play'
- b. chincuytze hin ba sajchoj

The infinitives may "float" only in causative sentences. They may not in sentences in which the main verbs are verbs of movement or desire. Infinitive Float occurs in transitive constructions in which the infinitive verb corresponds to a sentence complement and is not dominated by an NP node. The structure of the two types of complementation with the transitive verbs of causation (27) and desire (28) are contrasted below:

(27)



(28)



When the infinitival clause is a sentential object, there is not more word order scrambling between the infinitive object and the subject NP than there is between the nominal object and the subject NP of a simplex sentence.

4. EQUI-NP DELETION OF SUBJECTS OF INTRANSITIVE VERBS

4.1. Restriction to Subjects of Intransitive Verbs

Equi-NP Deletion is restricted to subjects of intransitive verbs. Subjects of transitive verbs cannot be deleted and always appear in aspectless embedded clauses:

- (29) a. ch-in to hach hin-col-o'
asp-A1 go A2 E1-help-fut
'I go to help you'
- b. *ch-in to col-o' hach
asp-A1 go help-fut A2
'I go to help you'
- c. *ch-in to hach col-o'
asp-A1 go A2 help-fut
'I go to help you'

There is not a form of transitive infinitive inflected for an object absolutive alone, as shown in *(29b) and *(29c). Sentence *(29b) illustrates the position in which the absolutive case marker would be expected in the absence of an aspect

and an ergative marker in the clause. Sentence *(29c) shows that no matter where the absolutive is positioned the lack of ergative case marker in the complement sentence renders the sentence ungrammatical. Other examples of transitive embeddings with verbs of desire and movement follow.

- (30) x- \emptyset -w-a' t-(y)-et w-anma hach w-il-a'
asp-A3-E1-give aug^t-E3-to E1-heart A3-E1-see-fut
'I felt like seeing you'
- (31) s-kan ha-c'ul ha-lo-b no' chibe
E3-want E2-stomach E2-eat-fut cl/the meat
'you want to eat the meat'
- (32) x- \emptyset -'apni ix hach s-tohla
asp-A3-arrive cl/she A2 E3-pay
'she arrived (there) to pay you'
- (33) ch- \emptyset -(y)-oche naj \emptyset s-watx'e-' hun-tu'
asp-A3-E3-like cl/he A3 E3-make-fut one-that
'he likes to make that'

The same restriction on the deletion of subjects of transitive verbs holds with the causative construction in which the transitive complement sentences are also of the aspectless embedded type:

- (34) ch-oñ s-chej ya' hach cu-tzaba an
asp-A1pl E3-orders cl/he A2 E1pl-grab 1p
'he orders us to grab you'
- (35) x- \emptyset -(y)-iptze naj ix hin s-col-o'
asp-A3-E3-force cl/he cl/her A1 E3-help-fut
'he forced her to help me'

The absence of the subject NP of the embedded verb in the surface structure of examples (32), (33), and (35) is due to the surface rule of Noun Classifier Deletion which does not affect the corresponding case marker.

4.2. A Restriction on CS#2

The restriction mentioned above cannot refer to the case of the subject, since all subjects take an ergative case marker in aspectless embedded clauses. The ergative case marking of the subject of an aspectless transitive verb is undistinguishable from the ergative marking of the subject of an aspectless intransitive one. Furthermore the rule is triggered by either the ergative subject of a verb of desire or the absolutive object of a verb of causation. The rule of Equi-NP Deletion however distinguishes between the two subjects marked for the same ergative case in embedding.

Neither does the restriction refer to the notion of an agent of an action, because the rule of Equi-NP Deletion can delete a non-agent subject of a passive when it is triggered by the object of a causative verb.

The restriction is a structural constraint on the aspectless embedded clause and not a constraint on the rule of Equi-NP Deletion itself. The constraint is that no deletion of an NP may occur in a transitive embedded clause. The Jacaltec infinitive verbs are bare forms which may not inflect for person, and the deletion of one of the two NPs by the rule of Equi-NP Deletion would leave a transitive verb with still one NP and one case marker to inflect.⁴

The restricted nature of the aspectless type of embedding was already mentioned in Chapter 8 Complement Sentences and Chapter 10 A Rule of Promotion, and is discussed again in Chapter 12 Manner Adverbial Sentences.

The constraint on the deletion of subjects of transitive verbs is specific to aspectless clauses. All movement and deletion rules--Clefting, Question, and Relative Deletion rules--apply freely to the subjects of finite transitive verbs removing both the lexical NP subject and its corresponding

ergative case marker. See Chapter 7 Disambiguation for a more complete discussion of these operations.

4.3. A Case of Backward Equi-NP Deletion

Verbs of movement with a transitive complement sentence sometimes appear in an auxiliary form, inflected for aspect but not for the agent subject NP.⁵ Fully inflected verbs of movement are contrasted with auxiliary forms in the pairs of examples below:

(36) a. caŋal ch-in to Ø w-il-a'
dance asp-A1 go A3 E1-see-fut
'a dance I am going to see'

b. caŋal x-Ø-to Ø w-il-a'
dance asp-A3-go A3 E1-see-fut
'a dance I am going to see'

(37) a. ay hune' niman tzalalal ch-in hul
is one big happiness asp-A1 come
Ø w-al-a' t-aw-et an
A3 E1-say-fut aug^t-E2-to 1p
'I come to tell you good news'

b. ay hune' niman tzalalal ch-Ø-ul
is one big happiness asp-A3-come
Ø w-al-a' t-aw-et an
A3 E1-say-fut aug^t-E2-to 1p
'I come to tell you good news'

(38) a. xc-oh ec' Ø cu-came-'
asp-A1pl pass A3 E1pl-borrow-fut hunun niŋtej
naylor bet ya' each little
plastic at cl/him
'we passed by his house to borrow a piece of plastic for each of us'

- b. x- \emptyset -'ec' \emptyset cu-came-' hunun
 asp-A3-pass A3 E1pl-borrow-fut each
 ni \dot{x} tej naylon bet ya'
 little plastic at cl/him
 'we passed by his house to borrow a piece of
 plastic for each of us'

- (39) a. tzet ch-ach to \emptyset haw-u-b
 what asp-A2 go A3 E2-do-fut
 'what are you going to do'

- b. tzet x- \emptyset -to \emptyset haw-u-b
 what asp-A3-go A3 E2-do-fut
 'what are you going to do?'

An interesting characteristic of the auxiliary type of construction is that it is restricted to sentences in which the embedded verb is transitive. It does not occur with intransitive embedded verbs with which forward Equi-NP Deletion has to apply:

- (40) a. xc-in to sajchoj
 asp-A1 go to play
 'I went to play'
- b. *x- \emptyset -to hin-sajchi
 asp-A3-go E1-play
 'I went to play'

Thus, while the subjects of embedded transitive verbs may not be deleted by the rule of forward Equi-NP Deletion, they may themselves trigger the backward Equi-NP Deletion of the subjects of the main verbs, provided the verbs are intransitive movement verbs. This rule of Backward Equi-NP Deletion is optional. It is the only instance of a backward deletion in the language.⁶

5. CONCLUSIONS

There are three types of Equi-NP Deletion in the language. One is triggered by the upstairs subject of verbs of movement or verbs of desire and is obligatory. The agent NPs which trigger the deletion may only delete subject NPs which are also agent NPs—i.e., subjects of active verbs.

The second instance of Equi-NP Deletion is triggered by the upstairs object of verbs of causation. The deletion is then optional and may apply freely to derived subjects of passive verbs.

These two instances of forward Equi-NP Deletion are restricted to subjects of intransitive verbs. The restriction is one on the structure of transitive aspectless embedded clauses and does not depend on the particular case assigned to the coreferential NPs nor on the notion of agent.

A third instance of Equi-NP Deletion operates in complex sentences with a movement verb as main verb and a transitive complement sentence. This operation is an optional Backward Equi-NP Deletion and shows the undeletable embedded subject of a transitive to be the controller of the deletion of the subject of the main verb.

NOTES

1. -oj is the irrealis future suffix of intransitive verbs. It is used in negation of statives, in future of intransitive verbs, and as a marker of non-specificity of nouns. See Note 5 in Chapter 2 The Verb.
2. Both verbs of movement and verbs of desire which take infinitival intransitive complement sentences have a tense constraint on their transitive complement sentences, which must be marked with the future suffix -

-v'/-b. See Chapter 8, Section 1.2. Aspectless Embedded Complement Sentence: CS#2.

3. Reflexive clauses exhibit only one NP in the surface structure:

(a) xilwe sba naj
tried himself cl
'he tested himself'

(a')*xilwe naj sba (naj)
tried cl/he himself (cl)
'he tested himself'

(b) swatx'e sba ix
prepared herself cl
'she prepared herself'

(b')*swatx'e ix sba (ix)
prepared cl/she herself (cl)
'she prepared herself'

In these constructions Infinitive Float yields only two possible word orders--with the infinitive before or after the one reflexive NP.

4. There is one instance of transitive infinitive in the language. It is found in the collapsed causative construction in which both the subject and the object of an embedded transitive verb have been reassigned functions in relation to the main verb, leaving the transitive as a bare form not inflected for any case. See Chapter 13, Section 2.3. Transitive Embedded Clauses.
5. The verb of movement apni 'to arrive there' may not be used in the auxiliary form:

(a) tzet xcach ec'/xcach hul/xcach bey/
what you passed/you came/you walked/
xcach to hawila'
you went you see
'what did you pass/come/walk/go to see?'

(a') tzet x'ec/xul/xbey/xto hawila'
what passed by/came/walked/went you see
'what did you pass by/come/walk/go to see?'

(b) tzet xcach apni hawila'
what you arrived there you see
'what did you arrive there to see?'

(b')*tzet x'apni hawila'
what arrived there you see
'what did you arrive there to see?'

6. There is no backward deletion with either the rule of Pronominalization or the rule of Noun Classifier Deletion. See Chapter 4 Pronominalization and Chapter 5 Noun Classifier Deletion.