# CAUSATIVIZATION IN CAIRENE EGYPTIAN ARABIC

By:

*Dr. HUDA GHALY*

Lecturer at the Department of English

Language and Literature

# NOTATION

## I) VOCALIC PHONEMES:

/i/ and /ii/ high front, unrounded short and long vowels respectively.
/u/ and /uu/ high back, rounded short and long vowels respectively.
/e/ and /ee/ mid front, unrounded short and long vowels respectively.
/o/ and /oo/ mid back, rounded short and long vowels respectively.
/a/ and /aa/ low central unrounded short and long vowels repectively.

There are a great variety of allophonic realizations of each phoneme but they are not our concern in this study.

## II) CONSONANTAL PHONEMES:

*i) Stops*
/b/ voiced bilabial stop
/t/ and /d/ voiceless and voiced apical dental stops.
/k/ and /g/ voiceless and voiced velar stops.
/ʔ/ voiceless glottal stop.
/ġ/ voiceless uvular stop.

*ii) Fricatives :*
/f/ voiceless labiodental fricative.
/s/ and /z/ voiceless and voiced dental grooved fricatives.
/š/ and /h/ voiceless palatal and glottal fricatives.
/x/ and /ɣ/ voiceless and voiced uvular fricatives.
/ḥ/ and /ʕ/ voiceless and voiced pharyngeal fricatives.

*iii) Emphatics*
/ṭ/ and /ḍ/ voiceless and voiced dental apical emphatic stops.
/ṣ/ dental emphatic fricative.

*(iv) Resonants*
/r/ and /l/ trilled and lateral resonants.

*v) Nasals*
/m/ and /n/ bilabial and dental nasals.

*vi) Semi-Vowels*
/w/ and /y/ velar and palatal semi vowels.

It is to be noted that /ġ/ has been regarded as a phoneme in CEA because there are some awords in this dialect of Arabic that can only have /ġ/ and not /ʔ/; for example, /ġaahira/ "Cairo" and /ġurvʔaan/ "Quran".

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# CAUSATIVIZATION IN CAIRENE EGYPTIAN ARABIC

This is a study of morphological causativization in educated middle-class Cairene Egyptian Arabic (i.e. CEA) in the light of the framework of generative grammar. It is hoped that in the light of the investigation undertaken in this study along with those undertaken earlier on causativization cross linguistically, we could gain insight into the nature of the linguistic universals that are responsible for this phenomenon. In the collection of data for this study, the investigator's intuition as well as her family's have been made use of in addition to a corpus composed of phonemic transcription of the speech of those characters in some of the TV series televized in Egypt speaking the dialect in question.

This phenomenon (i.e. causativization) has been discussed by Jackendoff (1975) as regards English. He discussed the relation between transitive causative verbs and their homophonous intransitive counterparts such as Bill opens the door vs The door opens. He regards it as involving a lexical rule, indicating that lexical rules are not limited to derivational morphology.

Lapointe (1977) assumes that word formation can be accounted for but he feels that it is done in terms of the X-bar system; i.e. derived words in morphology are projected from heads and categorial information of the head is carried over in the projection but only the level of the projection changes.

Chomsky (1982a) believes that causativization is a lexical operation as it is a morphological process that "assigns a new θ role uniformly (1982a:126). Whereas "passive inflection" blocks θ role uniformly" (1982a126), "other morphological process (e.g. morphological causative) may assign new θ roles in a uniform manner" (1982a:126). He believes that the causative verb is a three argument predicate that takes a "clausal complement as a lexical property, assigning to it the appropriate θ role and assigning the θ role agent to the subject of the verb" (Chomsky, 1982a:128). Taking the Japanese language as an example of morphological causatives, Chomsky (1982a) discusses the case system of the NPS with a causative construction. He says that the case system of the active causative verb is that of GA - GA - O; ie nominative, nominative and objective for languages such as Japanese; but that this case system is not universal as the Romance languages have a different case system i.e. GA - NI - O. For such languages "the general property of causatives is to assign the GF indirect object... to the subject of the clausal complement" (1982a:132). He goes on to say that this is why in such languages there is a similarity between the causative and the double object constructions and that they are only differentiated in their passivized forms; i.e. the double object constructions may have the case system GA - O or GA - NI" depending on whether the primary or secondary object of the verb is passivized" (Chomsky, 1982a:132). But the case system of the passivized causative construction is only that of GA - O since "the property of assigning NI (dative) to the primary object is absorbed by passive morphology" (Chomsky, 1982a: 132).

This line of thought of requiring causativization to be a lexical operation is different from that held by G. Saad (1982) in his analysis of causatives in Classical Arabic. For Saad (1982) causativization is "the result of a causative transformation which incorporates the causative feature into the base verb" (Saad, 1982:81). Moreover, Saad's (1982) analysis of Classical Arabic shows that "when a causative affix is added to a transitive verb, the derived causative verb takes two objects in the accusative" (Saad, 1982:69) as illustrated by the following:

i) Transitive Verb

/samiʔa zaydun ṣawtan /

Zayd heard a voice

ii) Causative Verb

/ʔ asmaʔat hindun zaydan ṣawtan/

Hind made Zayd hear a voice

As Classical Arabic has overt case inflections, it is clear that the causativized verb / ?asmaʔat/ "made to hear" takes two objects in the accusative case; i.e. both / zaydan/ and / ṣawtan/take the Accusative Case marker /-a-/ in the suffix / - an/[1] Therefore, the case system of Classical Arabic is not only different from that of Japanese but also from that of the Romance languages, as shown by Chomky (1982a).

In his description of Classical Arabic, Saad (1982) also differs from Chomsky (1982a) in that the former linguist shows that it is only the overt causative constructions that are clausally complex constructions but not the covert causative constructions, which he regards as not being "clausally complex but rather simplex sentences in the deep structure" (Saad, 1982:79). Of the two kinds of covert causative constructions i.e. morphologically derived covert causatives and prepositionally derived covert causatives, Saad (1982) basically deals with morphologically derived covert causatives and he regards these causatives as "decomposable into a base verb which belongs to the P component and a feature (+causative) which belongs to the Q component" (Saad, 1982:82). These various types of causatives in Classical Arabic are represented by the following sentences with the tree structure for the morphologically derived covert causatives:

1 . 2.

(i) Overt Causative Constructions:

/jaʔala zaydun hindan tajlisu/

Zayd made Hind sit down.

(ii) Prepositionally Derived Covert Causatives

/xaraja zaydun bihindin/

Zayd went out with Hind

(iii) Morphologicaly Derived Covert Causatives

a) / ?ajlasa zaydun ʔamran/

Zayd made Amr sit down

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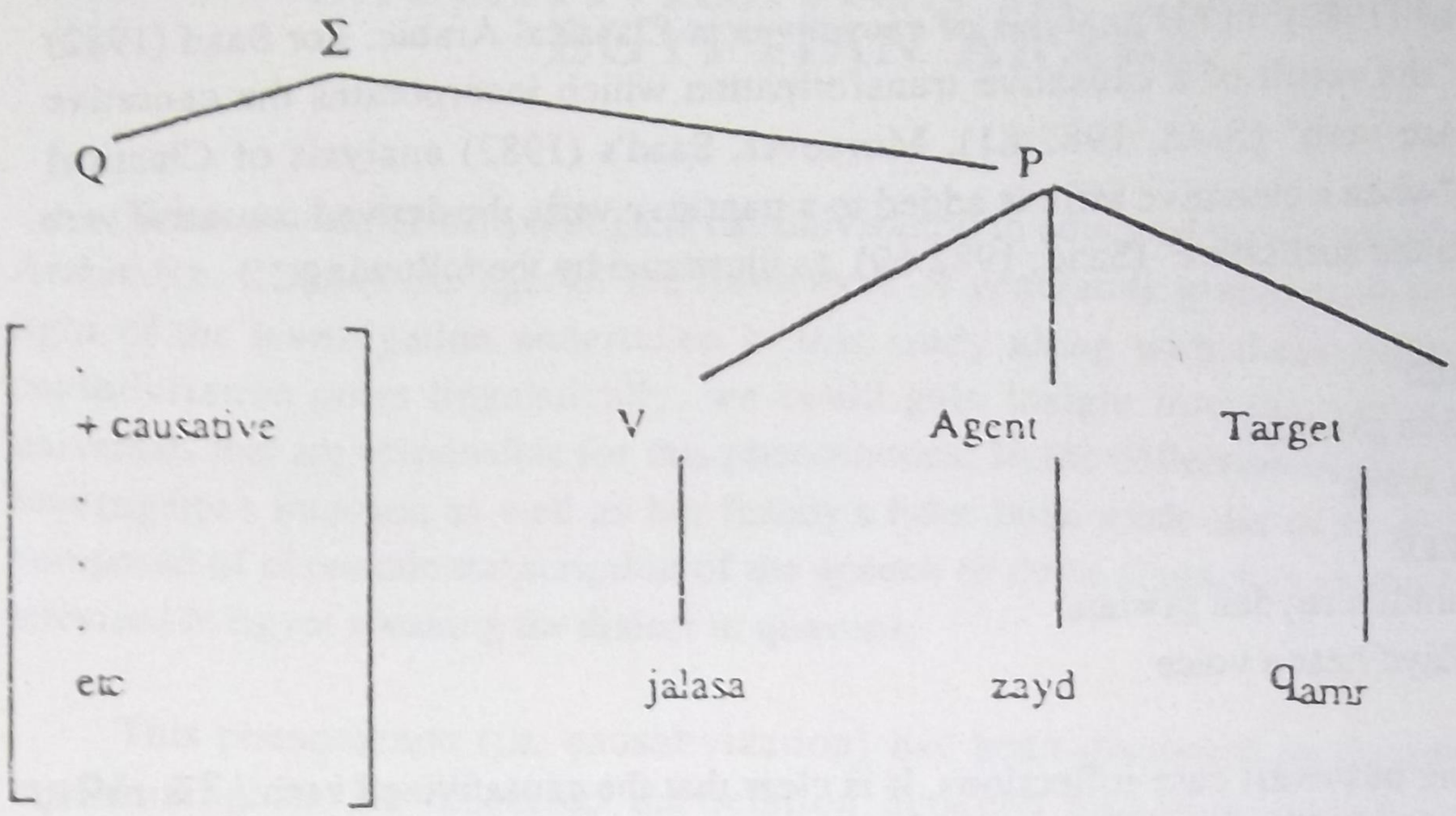
*1 The /-n/ in the /-an/ suffix is a nunational inflection. It is found in Classical Arabic in prepausal position. For a more detailed discussion of nunation in Modern Literary Arabic see D. Cowan (1982)




In providing further evidence of the difference between overt and covert causatives whether at the surface or the deep level, Saad (1982) says that "overt causative constructions are not paraphrases of covert constructions. The former may indicate indirect causation and can express a chain of causation (through successive embedding), but the latter may not" (Saad, 1982:86). Furthermore, "whereas most transitive verbs... may not be causativized covertly... they may overtly" (Saad, 1982:82). He goes on to say that the "non-causativizability is the common factor between transitives and causatives and betewen three place causatives and doubly transitive verbs". This is why "all intransitive verbs are causativizable" and "the syntactic effect of causativization is that it increases by one the number of objects which the causativized verb can take" (Saad, 1982:68).

In his concentration on the morphologically derived covert causatives, Saad (1982) says that they are not associated with the idea of accompaniment associated with the prepositionally derived covert causatives and that they adhere to certain patterns, which may be demonstrated as follows:

1.3:

i) Form I Causatives derived by Internal Vowel Modifications

The causatives of this pattern are derived from Form I verbs in accordance with the following rule:

a) / { famala / famila / famula } /---> /famala/

b) /ħazina / —> /ħazana/

to be sad to cause someone to be sad

ii) Form II Causatives/fammala/

Causatives of this pattern are derived from Form I verb in accordance with the following rule:

a) /fam { u / i / a } la / ----> / fammala/

b) / ġasura / ---> / ġassara/
to be short to be shortened

Not only verbs but also nouns may be causativized by this rule:

c) /sababun/ ---> /sabbaba/
cause (N) to cause

iii) Form IV causatives/ ʔ afmala/

These are derived from Form I verbs in accordance with the following rule:-

a) fam { i / u / a } la/ ----> /ʔafmala/

b) /samiʕa/ ---> /ʔasmaʕ a/
to hear (something) to make (someone) hear (something)

In distinguishing between Form II and IV causatives in Classical Arabic, Saad (1982) says that "intensity or persistency seems to be a feature distinguishing between form II and Form IV causative verbs". (Saad, 1982:72), as shown by the semantic difference between/ ʕallama/ "to teach" and / ʔ aʕlama/ "to inform "in Classical Arabic. However, he goes on to say that it is not always possible to make a distinction between two covert causatives derived from the same verb nor is it possible to derive more than one causative verb form from every causativizable verb in the language. It is in this respect that the various dialects of Arabic differ from one another as CEA does not make use of all these patterns of morphologically derived covert causatives.

J. Bresnan (1981) is in agreement with Saad (1982) in her belief that causatives involve the addition of an argument to the predicate structure. But she, along with all the above mentioned generative grammarians such as N. Chomsky (1982 - 1989), R. Jackendoff (1975) as well as those of T. Hoekstra, H. Hulst, and M. Moortgat (1981), differs from Saad (1982) in the belief that causatives belong to the realm of the lexicon. G. Carlson and T. Raeper (1981) also believe in a lexical treatment of the causatives in English; but they divide the causatives in English into productive and non-productive. For them, the productive causatives are derived by means of affixation from related simple verbs and show a regularity in their subcategorization frames, i.e. their complements are "limited to noun phrase" (Carlson and Raeper, 1981:130). The non-productive causatives are not derived from other verbal forms; therefore they are just listed in the lexicon as distinct lexical items.

Borer (1991) rejects an exclusively lexical approach because "morphological operations are inserted in different syntatic levels ... into any syntactic representation providing the correct environment for their insertion is met" (Borer, 1991:138). He also rejects an exclusively syntactic approach, as advocated by Pollock (1989). Borer (1991) believes that "the head - to - head movement[1] does exist" (Borer, 1991:135) in morphological operations but only "to create the adequacy of morphemes which is required in order for the morphological operations to apply." (Borer, 1991:138) such as the Righthand Rule of William's (1981a).[2] It is in this respect that he believes in an "autonomous morphology", which is "a model which allows the lexicon as well as the output of the WF component to be available for insertion at any stage" (Borer, 1991:155). For him, "these autonomous modules are available simultaneously, in a parallel fashion" (Borer, 1991:135). Accordingly, he says that the causatives in English are captured presyntactically whereas the inchoatives are captured syntactically.

M.T. Guasti (1991) proposes that "Italian causatives (which) are derived by syntactic incorporation (are) on par with morphological ones ... (and) excorporation of the causative verb from the complex verb" (Guasti, 1991:215). It is in this respect that Guasti (1991) maintains that there is a similarity between morphological causatives, as represented by Baker's (1988) analysis of Chichêwa, and analytical causatives, as represented by her study of Italian. Furthermore, she maintains both types of causatives involve Grammatical Function (GF) Change; the subject of the base verb acts as a direct or an indirect object of the complex verb and the direct object of the base verb acts as a direct object of the complex verb. Accordingly, the case system for the Romance languages may be GA. NI - O instead of GA - GA - O as in a language of the Japanese type, as discussed earlier in Chomsky (1982a).

CEA, on the other hand, has a Case system of GA - O - O on the analogy to the case system of Classical Arabic, which has overt Case markers[3] . As such a case system presents difficulty to the G.B. Theory, Y.N. Falk (1991) resolves this difficulty by assuming that after "V - to - I movement, the V - I complex seems to inherit from its V complement the ability to assign Accusative Case" (Falk, 1991:71). In our discussion of caustives in CEA, we have not only made use of Falk's resolution as regards the case system with two Accusative Case objects, but also of his belief that "detailed study of phenomenon like causativization draw(s) the two approaches together" (Falk, 1991:77) i.e. the lexical and the syntactic approaches. It is in this respect that we have differed from Chomsky (1989) in his belief that derivational morphology is part of the lexicon.

"With respect to word formation, there are two major categories where the question of X° movement arises : complex predicates (causatives, noun incorporation, etc.) and inflectional morphology, ... I am assuming a sharp and principled distinction between inflectional

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1. For a discussion of the head - to - head movement rule in relation to the Arabic language see. H. GHALY (1994).
2. The rightmost element in a morphological string determines the categorical type of projection dominating it.
3. See Saad (1982) for further discussion in this respect.

morphology, part of syntax proper, and strictly derivational morphology, part of the lexicon, perhaps subject to such principles as right - headedness in the sense of Edwin Williams and others" (Chomsky, 1989: 4).

## 2. Description of Some of the Causative Constructions in CEA

Like Classical Arabic as described by Saad, (1982), CEA has both overt and convert causatives. However, in this study we have only dealt with morphologically derived covert causatives, and more specifically with form II of these causatives. This form of morphologically derived covert causatives is phonologically similar to that of form II; i.e. it involves the gemination of the second radical of the simple verb form (i.e. form I). Form I causatives with internal vowel modification are not found in CEA; and Form IV causatives are extremely rare. The few examples that do exist in CEA are felt by the native speaker to be borrowed from Classical Arabic.

Concentrating on form II causatives, CEA may be divided into productive and non-productive causatives. The former causatives have been regarded as belonging to the syntax in view of the fact that a "lexical treatment... (as in lexical morphology) is inherently, non-explanatory and that there is no need to ban this from the domain of syntax". (T. Hoekstra, 1993: personal communication). Moreover, the productive causatives in CEA display sufficient regularity of syntactic behaviour to warrant a syntactic treatment, i.e., they do not involve a categorial change from their base forms; subsume to a syntactic constraint that requires an increase in the number of arguments in the predicate structure; and a semantic constraint that requires the causativized forms to be semantically related to their non-causativized forms (i.e. the base forms). As for the latter causatives (i.e. the non-productive causatives in CEA), they belong to the realm of the lexicon since they involve a categorial change from their base forms and may not subsume to the above mentioned syntactic and semantic constraints. It is in this respect that the investigator of this study has held a more eclectic approach as regards a phenomenon like causativization.

### 2.1. Productive Causatives

The productive causatives in CEA are of two types : causativization of intransitive verbs and that of transitive verbs.

#### 2.1.1. The Causativization of the Intransitive Verbs

The CEA intransitive verbs may undergo the operation of caustivization in which case they become transitive verbs with a CAUSER SUBJECT. This is exemplified by the following sentences, in which the (b) sentences have causative predicates derived from intransitive verb base forms whose forms are identical with those of form I verbs, as shown by the non caustivized predicates in sentences (a):-

2.1.1.1.

Non-Causativized
Intransitive Verbs
Form I

i) a) /rigiʔ (min issafar) /
He returned (from travelling)

ii) a) /zihi?/
He got fed up

iii) a) /kibir /
He grew

iv) a) /kidib/
He lied

v) a) /dihik/
He laughed

vi) a) /xareg/
He left or went out.

vii) a) /dafaʔ (kitiir)/
He paid (a lot)

viii) a) /ʔaʔad/
He sat down

ix) a) /wiʔiʔ /
He fell

x) a) / ʔakal/
He ate

Causativized Verbs
Form II

b) /ragga ʔ hiduumu/
He caused his clothes to be returned.

b) /zahha ? innaas/
He caused the people to get fed up.

b) / kabbar ilmuškila/
He caused the problem to grow

b) /kaddibuu/
They caused him to be a liar.i.e.they disbelieved him.

b) /dahhak innaas/
He caused the people to laugh

b) /xarrag ilkalb/
He caused the dog to go out.

b) /daffaʔ innaas kitiir/
He caused the people to pay a lot.

b) / ʔaʔʔ ad ilbint/
He caused the girl to sit down.

b) /wa?? aʔ ?innaas/
He caused the people to fall.

b) /ʔakkil ilwalad/
He caused the boy to eat.

The sentences of 2.1.1.1. (b) have causativized predicates that are derived from intransitiv verbs as their base forms. The process of causativization transforms these intransitive base verb into transitive verbs as can be seen by comparing sentences (b) with those of (a), which represe sentences with non causative predicates that have verbs of form I and that are identical in form the base forms from which the causative predicates of the (b) sentences are derived. It is in th respect that the causativization of the intransitive verbs subsumes to the Syn C, which requires increase in the number of arguments associated with the causative predicate. It is also to be no that the causativized verb is semantically related to the base form from which it is derived. Thi clear if we assume that the base form of the causative verb is that of form I. As a matter of f

the Sem C. is only respected when the Syn C is respected and as in the causativization of intransitive verbs as base forms the Syn C is respected, the Sem C is also respected.

It is being assumed here that the causative predicate is derived from a base form of a zero level category i.e. another verb form which is an intransitive verb. This view is different from that traditionally held that words in languages such as Arabic are derived from radicals. This is the view held by Guasti (1991) as she feels that the base form from which the morphological causative is derived is of the level V - 1; i.e. below the zero level. The reasons why the writer of this study has differed from the traditionally held point of view will be expounded in full in the course of this study. It is sufficient to say here that there are different types of causative verbs in CEA displaying different types of syntactic behaviour and that such differences are only accounted for if we assume that each type of causative verb is derived from a different base form with a different categorial status.

Sentences 2.1.1.1. also demonstrate that the causative predicate differs from the non-causative predicate which is the base form from which it is derived in its subject θ marking. Whereas the causative predicate θ -marks its subject as CAUSER SUBJECT, the noncausative predicate θ marks its subject as AGENT SUBJECT. This is clear to see if we assume that the base forms of the causative predicates of the 2.1.1.1. (b) sentences are of form I intransitive verbs, as shown in the (a) sentences.

2.1.2.: The Causativization of Transitive Verbs

In spite of the fact that in Classical Arabic, Saad (1982) believes that "it would be appropriate to claim that, in general, transitive verbs are not causativizable" (Saad, 1982:71), this is not the case in CEA. This is exemplified by the following sentences with transitive verbs as base forms that may be causativized becoming ditransitive verbs:

| 2.1.2.1. Non-Causativized Form<br>Form I | Causativized Forms<br>Form II |
|---|---|
| 1) a) /katab kitaab/<br>He wrote a book | b) /kattib ilwalad šiik/<br>He made the boy write a check |
| ii) a) /šahat šiwayyit<br>He begged (for) some sukkar/sugar i.e.<br>He asked for some sugar | b) /šahhat ilgiraan šiwayyit sukkkar/<br>He caused the neighbours to have begged (for) some sugar i.e. He gave the neighbours some sugar. |
| iii) a) /ʔakal il?akl/<br>He ate the food | b) /ʔakkil ilwalad il?akl/<br>He caused the boy to eat the food i.e. he fed the boy. |

iv) a) /rikib ilhoṣaan/
He rode the horse

b) /rakkib ilwalad
He caused the boy to ride
ilhosaan/the horse.

v) a) /ʕilim bilxabar/
He learned of the news i.e.
He was informed of the news

b) /ʕallim innaas ilġur?aan/
He caused the people to learn the Quran,
i.e. He taught the people the Quran.

In sentences 2.1.2.1., it is assumed that the (b) sentences have causative predicates that are derived from transitive verbs as their base forms. These transitive verbs are of form I and are identical in form to the verb forms of the predicates of the (a) sentences, which are sentences with noncausative predicates. Accordingly, in the causativization of transitive verbs as base form, we derive three argument causative predicates. This also applies to sentence 2.1.2.1. (V) (b); it is a three argument causative predicate in the sense that it is derived from an intransitive verb that obligatorily subcategorizes for a PP complement. Therefore, sentences 2.1.2.1. (b) demonstrate that the causativization of transitive verbs as base forms or two argument predicates with an intransitive verb and an obligatory subcategorized PP complement also subsumes to the Syn C. as well as the Sem. C. The causative predicate not only has an additional argument associated with it but is also semantically related to its base form. Sentences 2.1.2.1. also demonstrate that the causative predicate takes a CAUSER SUBJECT, whereas, its base form takes an AGENT SUBJECT.Therefore, both the causativization of intransitive and transitive base forms lead to a different subject θ making.

It is the fact that both the causativization of the intransitive and the transitive verbs as base forms subsumes to the Syn C. and the Sem. C that has allowed the investigator to group them together into one class that has been called the productive causatives in CEA. It is such regularity of syntactic behaviour that has enabled us to regard them as involving syntactic rules, rather than lexical rules. They are different from the other group of causatives in CEA in that the latter group may not ony violate the Syn C. and the Sem. C but also involve a categorial change in their causitivization.

2.2.: <u>The Non-Productive Causatives</u>

The non-productive causatives of CEA display a highly irregular complement structure that ranges from a subcategorization frame in which we may have transitive verbs to intransitive verbs. It is this variability of the complement structure of the non-productive causatives that displays that they do not subsume to the Syn C. and in turn violate the Sem C. There are different types of non productive causatives in CEA. The first subclass is derived from a verbal base form that does not subsume to the Syn C nor to the Sem C. in its causativization. The second subclass is derived from a nominal base form; in turn involving a categorial change in its causativization since the causative predicates are always verbal. These types of causatives may be illustrated by the following sentences in which the (a) sentences have non causative predicates or forms that are identical in form to the assumed base forms from which the causative predicates in the (b) sentences are derived.

2.2.1.: Non-Productive Causatives Derived from Verbal Forms

| *Non-Causativized Forms* | *Causativized Forms* |
|---|---|
| *Form I Verbs* | *Form II Verbs* |
| i) a)/ zaar ʔaxuuh/<br>He visited his brother | b) /zawwar ilbasboor/<br>He made a fraud reproduction of the passport |
| ii) a) /kasar ilbaab/<br>He broke the door | b) /kassar ilbaab/<br>He smashed the door to pieces |
| iii) a) / ʔafal ilbaab/<br>He closed the door | b) /ʔaffil ʕala - lmawḍuuʕ/<br>He hushed up on the subject, i.e. he kept it a secret. |
| iv) a) /šayal ilbint/<br>He made the girl fall for him | b) / šayyal ilbint/<br>He got a job for the girl. |
| v) a) /ɣasal ilhiduum/<br>He washed the clothes | b) /ɣassil gism ilmayyit/<br>He cleansed the dead body |

2.2.2. : Non-Productive Causatives Derived from Nominal Forms

2.2.2.1.: Non-Productive Causatives Derived from Noun Forms

| *Noun Forms* | *Causative Forms* |
|---|---|
| i) a) /xuraafa/<br>absurdity | b) /xarraf/<br>He talked nonsense<br>*c) /xarraf ilwalad/<br>He talked nonsense to the boy |
| ii) a) /šixiir/<br>snoring | b) /šaxxar/<br>He snored<br>*c) /šaxxar ilwalad/<br>He snored to the boy |
| iii) a) /fikr/<br>thinking | b) /fakkar/<br>He thought<br>*c) /fakkar ilwalad/<br>He thought of the boy |

iv) a) /kamaal/
perfection

b) /kammil/
He continued
c) /kammil kalaamu/
He continued his speech or went on speaking

v) a) /nuur/
light

b) /nawwar/
He or it lit up
c) /nawwar ilbeet/
He lit up the house

vi) a/ ʂid? /
honesty

*b) /ʂadda? /
He believed
c) /ʂadda? kalaamu/
He believed his words or He believed him.

vii) a) /kalaam/
words or speech

*b) /kallim/
He spoke to
c) /kallim ilbint/
He spoke to the girl

viii) a) /sigill/
registry

*b) / saggil/
He registered
c) /saggil ismu/
He registered his name

2.2.2.2.: Non Productive Causatives Derived from Adiective Forms

| *Adiective Forms* | *Causative Forms* |
|---|---|
| i) a) /ʔilwalad kibiir/ | b) /kabbar (ilbeet)/ |
| The boy is big | He caused (the house) to be bigger |
| ii) a) ʔilwalad laṭiif/ | b) /laṭṭaf (ilgaw)/ |
| The boy is nice | He caused (the weather or environment) to be nicer. |
| iii) a) /ʔilwalad ṯixiin/ | b) /ṯaxxan (ilbeet)/ |
| The boy is fat | He caused (the house) to be thicker |
| iv) a) /ʔilwalad sugayyar/[1] | b) /sayyar (ilbeet)/ |
| The boy is small. | He caused (the house) to be smaller |
| v) a) /ʔilwalad ḥaziin/ | *b) /ḥazzin ilbint/ |
| The boy is sad | He caused the girl to be sad. |

1. It is to be noted that the diminutive form is also found in CEA. See D. Cowan (1982) for a discussion of the diminutive form in Arabic.

vi) a) /ʔilwalad saqiid/
The boy is happy

vii) a) / ʔilwalad laʔiim/
The boy is sly

c) /ʸsee? yiḫazzin/
It is saddening i.e. something causes us to be sad
b) * / saqqad ilbint/
The boy caused the girl to be happy
c) /xalla - lbint saqiida/
He caused the girl to be happy
b) * /laʔʔim ilbint/
He caused the girl to be sly
c) /ʔ iqallim illuʔ m/
He learned slyness, i.e. to be sly as if it has become a subject of study.
d) /xallah baʔa laʔiim/
He made him become sly

## 2.2.2.3. Non Productive Causatives Derived from Active Participle Forms

| *Active Participle Forms*[1] | *Causative Forms* |
|---|---|
| i) a) /huwwa faakir/<br>He remembers | b) /fakkar ilwalad/<br>He reminded the boy |
| | c) */ fakkar/<br>He reminded |
| ii) a) /dah kaamil/<br>This (masc. sing) is complete | b) /kammil (kalaamu)/<br>He went on (speaking) |
| iii) a) /dah waasiq /<br>This (masc. sing.) is spacious | b)/wassaq (ilbeet)/<br>He made the house to be more spacious |
| iv) a) /dah waaliq /<br>This (masc. sing.) is lit up | b) /wallaq (ilbeet)/<br>He lit up the house. |
| v) a) /huwwa q aalim/<br>He is a scholar | b) */q allim/<br><br>c) /q allim innaas/<br>He caused the people to be learned |
| vi) a)/huwwa ṣaadiʔ /<br>He is honest | b) */ṣadda ʔ/ |

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1. In H. GHALY (19882) and (1994), it was shown that the active participle in Arabic is a nominal because it inflects for number and gender as a noun does. It is also introduced by a definite article. It is also a nominal in that it can not have a small pro as its subject. It is only the verbal predicate that can take a small pro as its subject.
See Chomsky (1982a and 1986) for a discussion of small pro, and see also H. GHALY (1988) and (1994) for a discussion of the syntactic distribution of small pro in Arabic.

c) /ṣadda? il walad/
He believed the boy
b) * / mawwit/
c) /mawwit ilwalad/
He caused the boy to be dead i.e.
He killed the boy.

vii) a) /dah mayyit/ [1]
This (masc. sing.) one is dead

Sentences 2.2.1. (b) represent non productive causatives that are derived from a verbal base form. The 2.2.1. (a) sentences represent non-causative predicates that have verb forms identical in form to the assumed base forms of the causative predicates of the (b) sentences. Both predicates i.e. the causative predicate and the base form from which the causative predicate is derived take an external argument as subject. But the external argument for the (a) sentences and the base forms of the (b) sentences is an AGENT SUBJECT; while the external argument for the predicates of the (b) sentences is a CAUSER SUBJECT. The non productive causatives derived from verbal base forms are similar to the productive causatives in this respect. However, they differ from the productive causatives in that they neither subsume to the Syn C. nor the Sem C; i.e. the causativization of the base forms which are identical in form to the verbs in the (a) sentences does not lead to an increase in the number of arguments associated with that predicate nor does it maintain the semantic relatedness of both predicates. Both the (b) as well as the (a) sentences, which have verbs identical in form to the base forms from which the (b) sentences are derived, have two argument predicates even in 2.2.1. (iii) (b); in which we have an intransitive causative predicate with a subcategorized PP complement. It is this violation of the Syn. C. that also leads to the violation of the Sem C. as shown by the translations of sentences 2.2.1. (a) and (b).

Sentences 2.2.2. represent non productive causatives that are derived from nominal base forms; therefore the process of causativization for these causative predicates involves a categorial change since the causative predicate in CEA is always a verbal one. This is because it involves the annexation of the verbal causative affix; i.e. the gemination of the second radical. It is assumed that the process of causativization applies to categories, rather than simply to radicals. In this study, we have assumd that the (b) 2.2.2.1. sentences represent causative predicates derived from noun base forms; the (b) 2.2.2.2. sentences represent causative predicates derived from adjective base forms, and the (b) 2.2.2.3. sentences represent causative predicates derived from active participle base forms.

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1. For a discussion of the phonological rules at work in Egyptian Arabic see T. Mitchell (1956) and in Modern Literary Arabic see D. Cowan (1982).

The causativization of a noun base form, as demonstrated by the (b) sentences of 2.2.2.1. (i) - (iii) generates one argument causative predicates; while that of 2.2.2.1. (iv) - (viii) generates two argument predicates. In the former group of sentences causativization is a form of predicatization in the sense that these nouns are transformed into one argument predicates. In the latter group of sentences, causativization transforms these nouns into two argument predicates. It may be said that the process of causativization with a noun base form also subsumes to the Syn C since non-predicate nouns are transformed to one or two argument predicates. It is in this respect that the Sem C. is also respected in the causativization of noun base forms.

Similarly, the causativization of an adjective base form, as represented by the (b) sentences of 2.2.2.2., subsumes to the Syn C. and the Sem C. This is indicated by the semantic relatedness of the base forms from which the causative predicate is derived and the causative predicate itself. The former are identical to the verb form of the non-causative predicates in the (a) sentences and the latter are illustrated by the (b) sentences. The increase in the number of arguments associated with the causative predicate demonstrates that the Syn C. is also respected. This increase in the number of arguments may either be overtly or covertly realized in the sense that the direct object of the causative predicate may be at both the D and S - structure levels of representation or it may only be at the D-structure level of representation. This is demonstrated by the fact that the direct object is optionally realized in sentences 2.2.2.2. (i) - (iv).

Sentences 2.2.2.2. (vi) demonstrate that not all adjectives may be causativized deriving morphologically covert causatives. This is illustrated by the ill-formedness of sentence 2.2.2.2. (vi) (b). Sentence 2.2.2.2. (vi) (c) demonstrates that this particular adjective has an idiosyncratic property that only allows it to causativize by means of the overt causative structure. It is to be noted that such idiosyncratic properties associated with different lexical items differ in each dialect of Arabic; for example this syntactic restriction on the adjective/saʔ iid/ is only found in CEA, and not in Classical Arabic. Such a syntatic restriction is different from the semantic restriction imposed on the lexical item / laʔiim/ "sly" of sentences 2.2.2.2. (vii). The ill-formedness of the (b) sentence of 2.2.2.2. (vii) is because of a semantic restriction that requires that morphologically covert causatives imply a naturally acquired causative concept. But the concept of the overt causative may not be naturally acquired, rather it may be learned. This is why sentence 2.2.2.2 (vii) (d) is well-formed because the notion of slyness /ʔillu?m/ has been learned as a subject of study, as shown by the well - formedness of sentence 2.2.2.2. (vii) (c). That the covert causativization of the adjective /laʔiim/ is indeed semantically restricted is shown by the ill-formedness of sentence 2.2.2.2. (vii) (b) in both CEA and Classical Arabic. However, whether the causativization of an adjective base form is either syntactically restricted as in 2.2.2.2. (vi) or semantically restricted as in 2.2.2.2. (vii), these sentences show that the syntactic behaviour of causative predicates derived from different base categories is indeed different. This

different. This justifies the belief that the causative predicate is indeed derived from a base form that is of a zero level category i.e. x° and not (x - 1).

Sentences 2.2.2.2. (v) also demonstrate that indeed different causative predicates derived from different base categories show different syntactic behaviour. These causatives only allow their direct object to be overtly manifested at the D-structure level of representation. This is not the case with causatives derived from active participle base forms, as shown by sentences 2.2.2.3. The CAUSER SUBJECT in sentence 2.2.2.2. (v) (c) is /ʔaṣ-ṣee?/ ie something that caused us to be sad. The direct object is "us" and it is only overtly manifested at the D-structure level of representation. Whenever the direct object is overtly manifested at the S-structure level of representation, the sentence is ill-formed, as shown by 2.2.2.2. (v) (b).

The causativization of the active participle base form also involves a lexical rule because it involves a categorial change since active participles in CEA are nominals in structure.[1] This is why it has been regarded as forming a non productive causative. This causativization also subsumes to the Syn C and the Sem C.; but again it displays a different syntactic behaviour from those with noun or adjective base forms. For example, the causative predicates of sentences 2.2.2.3. (v) - (viii), derived from an active participle base form, require that their direct objects be overtly manifested; i.e. generated at both the D and S- structure levels of representation. On the other hand, causative predicates of sentences 2.2.2.2. (v), derived from an adjective base form, require their direct objects to be covertly manifested; i.e. generated only at the D. structure level of representation. It is only the causative predicates of sentences 2.2.2.3. (ii) and (iii) that show a similar syntactive behaviour to those derived from adjective base forms. They subsume to the Syn C. and the Sem C. They also allow their direct objects to be optionally overtly manifested.

The causative predicate derived from an active participle base form is also different from that derived from a noun base form. This is demonstrated by sentences 2.2.2.3. (i), in which the (b) sentence has a causative predicate that is derived from an active participle base form identical in form to the predicate of the (a) sentence. This causative predicate i.e. of 2.2.2.3. (i) (b) is a two argument predicate, as shown by the well-formedness of the (b) sentence and the ill-formedness of the (c) sentence. This is not the case with the caustaive predicate derived from a noun base form, as demonstrated by sentences 2.2.2.1. (iii). The causative predicate derived from a noun base form is only a one argument predicate, as shown by the well-formedness of the (b) sentence and the ill-formedness of the (c) sentence. Moreover, the fact that the causative predicate of sentence 2.2.2.1. (iii) (b) is derived from a noun base form whereas that of sentence

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1. See H. GHALY (1988) and (1994) for further discussion on active participles and their nominal structure in Arabic.

2.2.2.3. (i) (b) is derived from an active participle base form is indicated by the semantic relatedness of each causative predicate to its base form, which is assumed to be identical in form to the predicates of the (a) sentences. The noun derived causative predicate of sentences 2.2.2.1. (iii) (b) means "to think" from "thought"; whereas the active participle derived causative predicate of sentence 2.2.2.3. (i) (b) means "to remind" from "remember".

It is such differences between the causative predicates that can only be accounted for if we assume that they are derived from base forms of the zero level category. Apart from the above semantic differences between both causative predicates of sentences 2.2.2.1. (iii) (b) and 2.2.2.3. (i) (b), the syntactic difference between them is also accountable due to the fact that they are derived from different categories as their base forms. As the base form in the former predicate is a noun that has been predicatized, it is a one argument causative predicate. But as the base form in the latter predicate is an active participle that is already a one argument predicate, it becomes a two argument causative predicate. This not only shows that the Syn C. and the Sem C. are respected in the causativization of base forms with active participles, but also that the base forms of all these causative predicates must indeed be of the zero level category. Moreover, it is this variability of the complement structure of the non productive causatives in general that indicates that they involve lexical rules, rather than syntactic rules.

The notion that the transitive/intransitive distinction [1] in verbs is a syntactic matter and not just a lexical one has been discussed in the literature by Grimshaw (1982). She demonstrates that intransitivization in French is syntactically marked by the intransitive marker se. In a similar respect, Saad (1982) has shown that transitivization in Classical Arabic is syntactically marked by the transitive marker, i.e. the gemination of the second radical (i.e. form II) as well as the phonological changes involved in form I and Form IV verbal forms. This transitivization only applies in CEA to the productive causatives only by means of the gemination, but not to the nonproductive causatives. This is understandable because the productive causatives in CEA are complex verbs; whereas the nonproductive causatives are simple verbs.

In keeping with Carlson and Reaper's (1981) belief that verbs that "take a wide variety of complements ... are simple verbs (but) if their complements are limited, they are complex verbs" (1983 : 157), we have regarded the productive causatives in CEA as complex verbs whereas the non - productive causatives are simple verbs. The limitation of the complement structure of the productive causatives in CEA is that they subsume to the Syn C., requiring the regular increase in the number of agruments associated with the predicate. In other words, they "create rather than

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1. See T. Hoekstra (1984) and Hoekstra and Mulder (1990) for a discussion of the distinction between transitive/intranstive, showing that it is a syntactic matter.

inherit the subcategorization" (Carlson and Raeper, 1981: 133) frame of their base forms. On the other hand, the non-productive causatives CEA are simple verbs, with a variety of complement structures depending on the idiosyncratic properties of the lexical items in question. This is why the causativization for the productive causatives in CEA may be viewed as an operation of transitivization but not for the non productive causatives, especially as the generation of the productive causatives takes place in the syntax, and not in the lexicon.

Having seen that there are different types of causative predicates in CEA and that they have different complement structures, it can be said that the general underlying explanatory principle pertaining to both causatives in CEA is the assigning of the causative predicate its subject a different θ role from that assigned to the subject of the base form from which the causative predicate is derived. All the causative predicates whether productive or non productive or whether derived from verbal or nominal base forms assign their subjects the θ -role CAUSER. On the other hand, their verbal base forms generally assign their predicates the θ role AGENT and their nominal base forms generally assign their subjects the θ role THEME. Therefore, the causativization of the verbal base form involves the assigning of a different external argument to its subject because the AGENT SUBJECT is also an external argument. But that of the nominal base form involves the externalization of its subject since the THEME SUBJECT is an internal argument. It is in this respect that causativization in CEA should be viewed as being mainly subject control, rather than complement control.

That indeed the CAUSER SUBJECT of the causative predicate is an external argument can be demonstrated by the passivizability of its predicate. In a former study, H. GHALY (1994) showed that passivization in CEA is a process of deagentivization in which the syntactic subject of the passive predicate cannot be an AGENT SUBJECT. It follows that the passivization of the causative predicate in CEA is a process of decausativization now that we have distinguished between the non causative active predicates and the causative active predicates. This is demonstrated by the following passive sentences in CEA, in which the former group of sentences show the deagentivization of their subject and the latter group of sentences show a decausativization of their subjects.

## 2.3. Passive Sentences in CEA

### 2.3.1. Passive Sentences with Decausativization

i) /kalaamu ʔitṣadda?/

His words have been believed, i.e. caused to be truth.

ii) /ʔiššuɣl ʔitkammil/

The work has been caused to be complete.

iii) /ʔissigaara ʔit wallaqit/

The cigarette has been caused to be lit.

iv) /ʔilkitaab ʔitraggaq /

The book has been caused to be returned

v) /ʔilwalad ʔithawwil/

The boy has been caused to be transformed i.e. transferred

2.3.2.: Passive sentences with Deagentivization

i) ʔilkitaab ʔitsaraʔ/

The book has been stolen.

ii) /ʔilwalad ʔiddarab/

The boy has been beaten

iii) /ʔilwalad ʔitʔatal/

The boy has been killed

In both groups of passive sentences the subject is no longer a CAUSER SUBJECT nor an AGENT SUBJECT because passivization has allowed the subject to have the internal θ role PATIENT, instead.[1]

The fact that causativization is one of subject control as regards its assigning it a specific external θ role i.e. CAUSER also allows us to differentiate between non causative intransitive, transitive and ditransitive verbs and causative intransitive, transitive and ditransitive verbs. This is why in CEA the double object constructions of Chomsky (1982a) and the causative constructions are not similar, as they are for the Romance languages. They assign different θ roles to their subjects even though they may be similar in the number of arguments associated with them. This thematic difference of these predicates is also reflected by their different case assigning properties, as to be shown in the discussion of the derivation of the causative sentences in CEA.

## 3. The Derivation of the Causative Sentences in CEA with Morphologically Derived Covert Causatives of Form II

In order to derive the above mentioned types of causative sentences in CEA in the light of the framework of generative grammar, we have assumed the following D-structure representation for these causative sentences, some of which have been repeated here for clarity of exposition:

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1. See H. GHALY (1994) for further discussion on the matter and the distinction between the internal argument PATIENT SUBJECT assigned by the passive predicate and that assigned by the ergative predicate.

3.1.: The Causative Sentences

3.1.1. With Productive Causatives

i) /kaddib ilwalad/ He has caused the boy to be a liar i.e.

He disbelieved him

ii) /katab ilwalad šiik/

He has caused the boy to write a cheque.

3.1.2.: With non-Productive Causatives

i) /kassar ilbaab/

He has caused the door to be smashed to pieces.

ii) /xarraf/

He has caused absurdity i.e. committed an absurdity.

iii) /sahhil (ilwaagib)/

He has caused the homework to be easy

iv) /wassaʕ (ilbeet)/

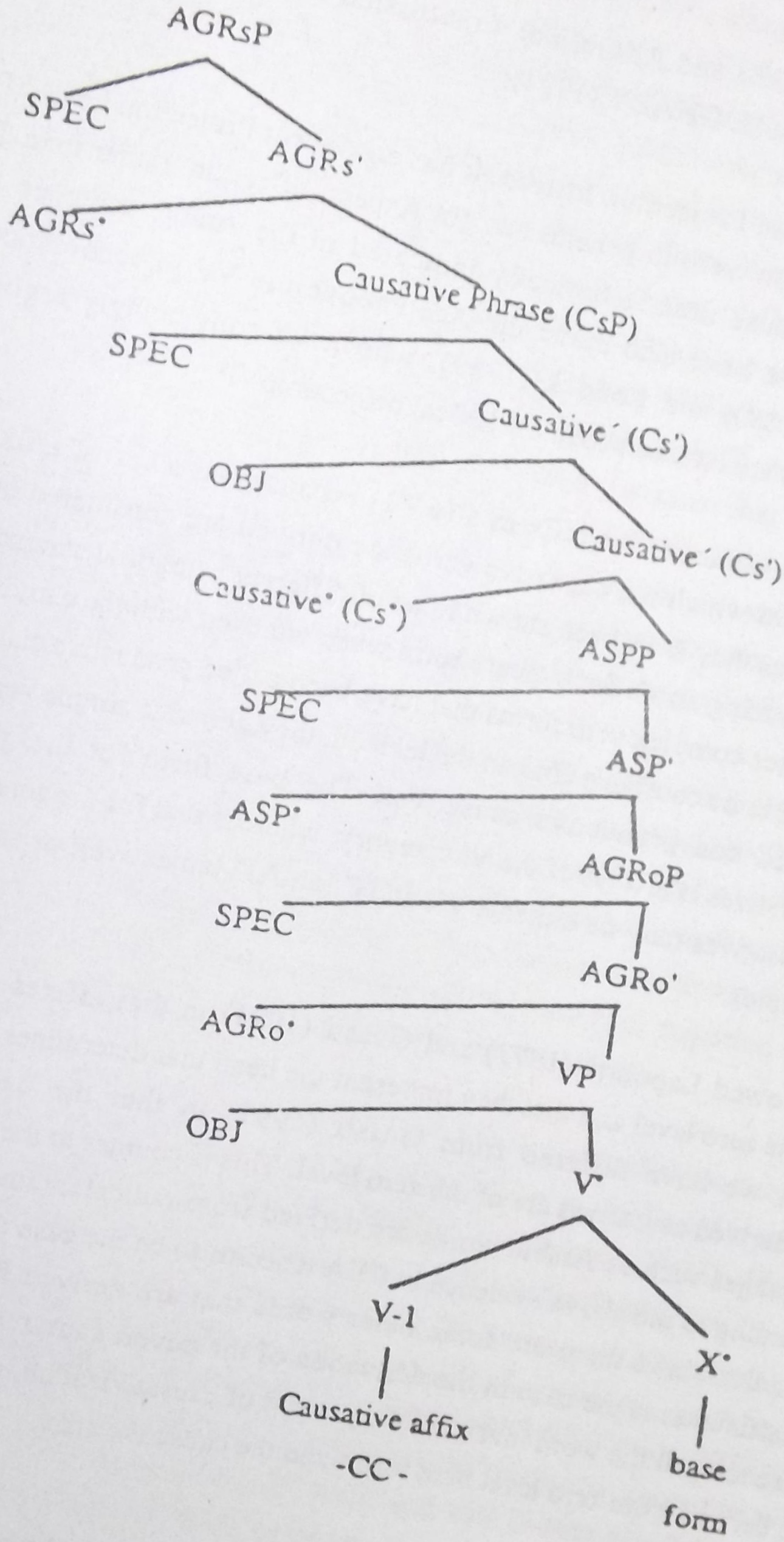
He has caused the house to be bigger

v) /ʔatil innaas/

He has caused the people to be dead i.e. He has killed the people.

The productive causatives are represented here by a two argument predicate derived from an intransitive verbal base as in 3.1.1. (i); and a three argument predicate derived from a transitive verbal base as in 3.1.2. (ii). The non-productive causatives are represented here by a two argument predicate derived from a transitive verbal base as in 3.1.2. (i); a one argument predicate derived from a noun base as in 3.1.2. (ii); a two argument predicate derived from an adjective base as in 3.1.2. (iii); a two argument predicate derived from an active participle base as in 3.1.2. (iv); and a two argument predicate derived from an active participle base that does not allow the deletion of its object at S-structure as in 3.1.2. (v). Despite the variety of the causative predicates of form II in CEA and the variety of the base forms from which they are derived they may be derived from the following D-structure representation:-

3.2. D-Structure



D-structure 3.2. makes the following presupposition:

3.3.

3.3.1. AGR has been split into AGRs and ARGo. For a discussion of this split see Chomsky (1989), Marácz (1991), and H. GHALY (1994).

3.3.2. CEA does not have a Tense Projection. Instead, it has an Aspect Projection i.e. ASPP. It is assumed that the Arabic verb in general has got Aspect inflection, rather than Tense inflection. This is because time is basically indicated in the Arabic sentence by its adverbial system.[1] We have also made the ASPPabove the VP in accordance with Chomsky (1986 and 89); and Pollock (1989), who have convincingly argued that Functional Projections are located above the lexical projection VP.

3.3.3. : D-structure 3.2. has the causative affix as a (v - 1) because it is a verbal affix in CEA. The base forms from which the causative verbs are derived are considered of the zero level category and as they have been shown to be of different categorial statuses, they are regarded as representing an $x^{\circ}$. Such a base form when annexed with the causative affix in the syntax generates complex verb forms that have been called productive causatives. But when annexed with the causative affix in the lexicon, they generate simple verb forms that have been called non productive causatives. The base form for the generation of productive causatives is always of the $V^{\circ}$ category; whereas that for the generation of non productive causatives may be either a $V^{\circ}$, an $N^{\circ}$, an $AJ^{\circ}$ (adjective); or an Active Part $^{\circ}$ (Active Participle).

We have followed Lapointe (1977) and Guasti (1991) in that affixes are regarded as categories below the zero level and that they represent the head that determines the category as a whole. However, we have differed from Guasti (1991) in that the base forms of the morphologically derived causatives are of the zero level. This is counter to the view traditionally held that in languages such as Arabic words are derived from radicals, rather than from other words. But according to the above evidence in CEA it seems to be the case that some words are derived from radicals and there are some other words that are derived from words and the annexation of affixes as is the case in the derivation of the covert causatives of form II. It is a process of embedding at the word level; i.e. the process of causativization in CEA derives verbal forms that are derived from zero level base forms and the causative affix.

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1. See H. GHALY (1988) for a discussion of how time is indicated in the Arabic language by means of its adverbial system and a discussion of the aspect inflection carried by the Arabic verb form. See also H. GHALY (1994) for further discussion of the Arabic verb form.

3.3.4.: The subject is VP - internal in D-structure 3.2., along the lines proposed by Koopman and Sportiche (1988) and the linguistic facts of CEA. The verb form in CEA not only carries object pronominal inflection but also subject pronominal inflection. For example, in the CEA sentence /šafitu/ She saw him", we have the subject pronominal inflection /-it-/ ie "She" and the object pronominal inflection /-u/i.e. "him". Moreover, since both affixes are pronominal inflections carried by the verb form, it may be said that the sentence in CEA may be of the level V´. This is reminiscent of Halle's (1978) base rule for the Japanese sentence and Chomsky's (1982a) discussion of it. It is in this respect that Chomsky's (1989) split of AGR into ARGs and AGRo has been found to be convenient in the analysis of the sentence of CEA. Therefore, in D-structure 3.2., the object is VP internal and the subject is AGRoP internal in the sense that the non causative base form has its subject AGRoP - internal and the causativized verb has its subject CsP - internal; both arguments of which are indicated by the inflections carried by the verb form. It is in this respect that indeed in the analysis of the Arabic sentence as exemplified by CEA morphological operations cannot be divorced from the syntactic ones.

3.3.5.: This D-structure also assumes that the causative affix has a projection of its own that is located above VP. The causative affix is regarded as being parallel to the passive affix[1] in CEA in the sense that the latter affix basically leads to a decrease in the argument structure of the predicate and the former affix leads to an increase in the argument structure of the predicate. It is in this respect that in the analysis of both sentence types in CEA (i.e. passive and causative sentences) these affixes have been regarded as forming projections above VP despite the semantic differences between them.

This analysis of the causative affix not only shows the parallelism between both affixes but also points to the fact that the causative sentence in CEA is not biclausal at the D - structure level. This is not in agreement with Chomsky (1982a) and Gausti (1991). However, despite the non-biclausal structure of the causative sentence in CEA at the D-structure level, the θ criterion of Chomsky (1982a) at LF is not violated; and this "D structure is a representation of the θ role assignment" (Chomsky, 1982a: 39). This is because "at D-structure... each argument occupies a θ position and each θ position is occupied by an argument" (Chomsky, 1982a: 39) as a result of the Projection Principle. Accordingly, the subject of the productive causative with an intransitive base form, as exemplified by sentence 3.1.1. (1) and with D-structure 3.2. is base - generated at SPEC of CsP and θ marked CAUSER by its governor Cs'. The object of this causative predicate is base generated at OBJ of Cs´ and θ marked PATIENT by Cs°. It is to be noted that the object

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1. See H. GHALY (1994) for an analysis of passivity in Cairene Egyptian Arabic.

of the causative predicate is base-generated at OBJ of Cs', and not at OBJ of VP, because its base form is an intransitive verb.

The subject of the productive causative with a transitive base form, as exemplified by sentence 3.1.1. (ii) with D-structure 3.2., is also base generated at SPEC of CsP and θ marked CAUSER by its governor Cs'. The first object of this three argument causative predicate is base generated at OBJ of Cs'; and the second object as OBJ of VP. The former object is θ marked TARGET by Cs°; and the latter object is θ marked PATIENT by V°.

The subject of the non productive causative with a transitive base form, as exemplified by sentence 3.1.2. (i) with D-structure 3.2., is also base generated at SPEC of CsP and θ marked CAUSER by Cs´ Its object is base generated at OBJ of Cs', and θ marked PATIENT by Cs°. This differentiates between the object of the non-causative predicate e.g./kasar/[1] and that of the non-productive causative/kassar/.

The assumption that at the D-structure level the causative predicate has a separate projection above the VP allows us to distinguish between the causative predicate, on the one hand, and the non-causative transitive and intransitive predicates, on the other hand. The subject of the latter predicates is base generated as the SPEC of AGRoP and θ marked by AGRo'. The object of these predicates is base generated as the OBT of VP and θ marked by V°. Moreover, in the generation of three argument causative predicates, as we have seen, both OBJ positions are required for their θ marking. This is basically why in the derivation of causative predicates these θ positions are found at the D-structure level. But in order not to violate the θ criterion, it is assumed that the semantically null θ positions at LF are deleted on the analogy of Chomsky (1989) that semantically null NPS are deleted at LF.

The subject of the non productive causative with a noun base form, as exemplified by sentence 3.1.2. (ii) with D-structure 3.2, is also base generated at SPEC of CsP and θ marked CAUSER by Cs'. Being a one argument causative predicate, the semantically null θ positions are again deleted at LF.

The subject of the non productive causatives with an adjective base form, as exemplified by sentence 3.1.2. (iii) with D structure 3.2., is base generated at SPEC of CsP and θ marked CAUSER by Cs´. As causativization transforms the one argument adjective predicate into a two argument causative predicate, the object of the causative predicate is base generated at OBJ of Cs' and marked PATIENT by Cs°.

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1. /ʔilbaab/ "door" in /kasar ilbaab/ "He broke the door" is base generated as OBT of VP; but it is base-generated as OBJ of Cs' in the causative sentence /kassar ilbaab/ He smashed the door.

The subject of the non-productive causative with an active participle base form, as exemplified by sentences 3.1.2. (iv) and (v) with D structure 3.2., is base generated at SPEC of CsP and θ marked CAUSER by Cs'. Again as causativization transforms the one argument active participle predicates into two argument causative predicates, the object of the causative predicate is base generated at OBJ of Cs' and θ marked PATIENT by Cs°. The semantically null θ positions are also deleted at LF, in the manner shown above.

Therefore, the assumption that the D. structure of the causative predicate has a separate projection that is located above VP and that has a separate OBJ has not only maintained that there is no violation of the θ criterion at LF but also shown that there is no need for the assumption that the D-structure of the causative predicate has to be biclausal. Moreover, the syntactic behaviour of the object of the causative predicate is different from that of the non causative predicate to warrant the need for a separate OBJ made for its generation. For example, the object of the causative predicate may be deleted at the S-structure level, as shown by the optionality of the object in sentences 3.1.2. (iii) and (iv). When the object is overtly realized in these sentences, it is said to be present at both the D and the S-structure levels of representation; but when it is coverdly realized, it is said to be only present at the D-structure level of representation. This deletability of the object NP is not possible with the non causative predicates; and it is the fact that such NPS in the causative predicate can be deleted that points to the fact that they are objects, rather than subjects of an embedded clause[1]. This again provides further verification of the non-biclausal structure of the causative sentence of CEA at the D-structure level even for three argument causative predicates.

3.3.6. : D-structure 3.2. also allows the generation of an appropriate S structure for the proper case assignment in accordance with Chomsky (1982a) of the NPS associated with the causative predicate. The case system associated with the causative predicate in Arabic in general is of special importance as it distinguishes between the ditransitive non causative predicate, i.e. the double object constructions of Chomsky (1982a), and the three argument causative predicate. Whereas the ditransitive non causative predicate has a dative and an accusative case; the three argument causative predicate has two accusative cases. This is built on the assumption that CEA is analogous to the case system of Classical Arabic as described by Saad (1982), with its overt case markers. It is also demonstrated by the fact that the non-causative double object predicate in CEA has a PP and an NP in its complement structure. It is in this respect like that of classical Arabic, in which the dative case is assigned to the NP governed by P and the accusative case is

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1. According to Chomsky (1982a) objects are more easily deleted than subjects.

assigned by its governor V. Similarly, in CEA in the sentence with a non-causative predicate such as /ʔištaralha beet/ "He bought for her a house", the NP "her" i.e /ha/ is assigned dative case by its governor P i.e. /l (a)/ "for" and the NP "house" i.e. /beet/ is assigned accusative case by its governor V. Accordingly, it follows that the NPs in the complement structure of the three argument causative predicate in CEA, as exemplified by sentence 3.1.1. (ii) are both assigned accusative case. The first direct object i.e. /ʔilwalad/ is assigned accusative case by its governor Cs°; and the second direct object is assigned accusative case by its governor V°. Therefore, D-structure 3.2., with the postulation that there is an OBJ at Cs' in addition to that at VP derives an S-structure that allows both objects in the three argument causative to be assigned accusative case. This not only resolves the difficulty of assigning both objects accusative case within the GB theory without resorting to V - to - I movement[1] but also brings out the distinction in CEA between ditransitive non-causative predicates (i.e. the double object constructions) and three argument causative predicates. As for the case assignment of the object NP in all of the other sentences of 3.1., it proceeds in the regular manner; i.e. they are assigned accusative case by Cs° since these are the objects of causative predicates and the node [NP, VP] is deleted at LF, as shown earlier.

The case assignment of the subject of the causative predicate, on the other hand, does require NP movement from SPEC of CsP to SPEC of AGRsP, where it is assigned nominative case by its governor AGRs'. Therefore, in order to derive an appropriate S-structure for the above case marking, the following movement rules are required:-

## 3.4. The Movement Rules required for the Derivation of the Causative Sentences with Morphologically Derived Covert Causatives of Form II

### *3.4.1. NP - movement*

This movement rule is for the nominative case assignement of the syntactic subject[2] of the causative predicate. The subject of the causative predicate, base-generated as the SPEC of CsP, needs to be moved to the SPEC of AGRsP, where it may be assigned nominative case by its governor AGRs'.

This movement rule does not violate the locality conditions of the Minimality Condition of Chomsky (1986) and the Relativized Minimality of Rizzi (1990)[3] because the trace of the moved subject at SPEC of CsP is antecedent governed by the moved subject at SPEC of AGRsP.

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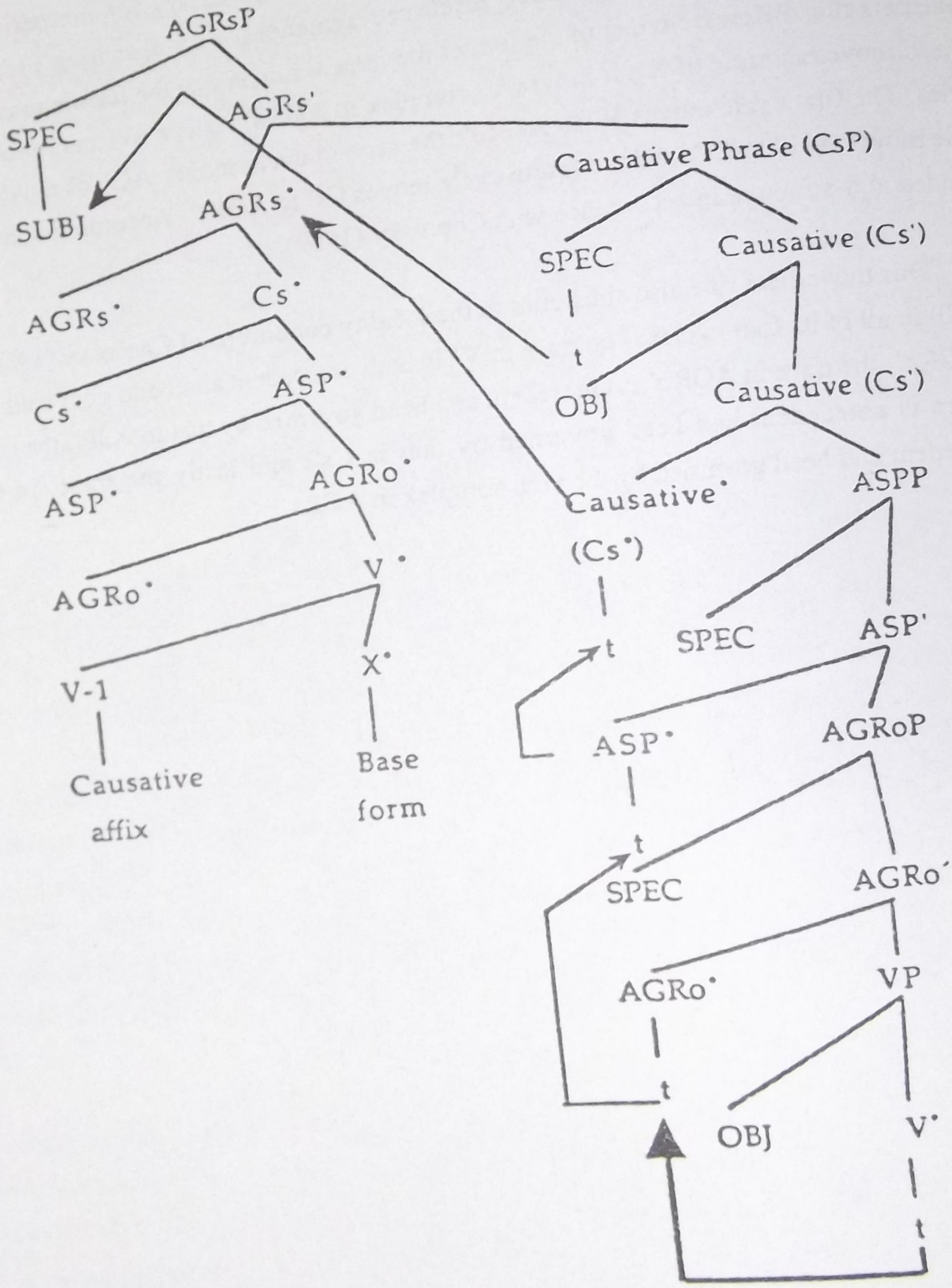
1. Falk (1991) resolves this difficulty of assigning accusative case to the two objects in three argument causatives predicates within the GB theory by assuming V - to- I- movement. The first object is assigned accusative case by V and the second object is also assigned accusative case by the V - I complex after movement.
2. It is to be noted that all term "syntactic subject" refers to the subject after it has been assigned nominative case, i.e. after it has been moved to the SPEC of AGRsP at S-structure. It differs from the base generated subject of the causative predicate.
3. For a discussion of these conditions see Chomsky (1986) and Rizzi (1990). For their application to Arabic see H.GHALY (1994).

### 3.4.2. Verb Incorporation

Since "items lexically identified as affixes (must) be properly 'attached at S-structure'". (Chomsky, 1989:8) and since "lexical affixes (causatives) are incorporation triggers". (Guasti, 1991:216), the movement rule of verb incorporation is necessary for the derivation of the appropriate S-structure for the above discussed sentences with causative predicates. This movement rule differs from that of the former movement rule in that the former movement rule is a head movement rule of X°. It moves V° complex to AGRs°. This movement proceeds in four cycles. The first cycle moves V° to AGRo°; the second cycle moves AGRo° to ASP°; the third cycle moves ASP° to Cs°; and the fourth cycle moves Cs° to AGRs°. Accordingly, no affix is left stranded at S-structure in accordance with Chomsky (1989).

This movement rule also subsumes to the locality conditions of Chomsky (1986) and Rizzi (1990) in all of its four cycles. The trace in V° is both antecedent and head governed by the trace in AGRo°; the trace in AGRo° is antecedent and head governed by that in ASP°, the trace in ASP° in turn is antecedent and head governed by that in Cs°; and lastly the trace in Cs° is both antecedent and head governed by the verb complex in AGRs.

3.5.: S-structure



## 4. Conclusions

i) This study has shown that CEA has a causative verb form that is phonologically similar to form II of Classical Arabic as discussed by Saad (1982); i.e. it involves the gemination of the second radical. Of the diverse covert causative forms found in Classical Arabic as shown by Saad (1982), CEA has selected form II for its morphologically derived covert causative form, which is not a paraphrase of the overt causative construction. This justifies that this morphologically derived covert causative construction in CEA is not bi-classical at the D-structure level.

ii) These cuasative verbs in CEA may be divided into productive and non-productive causatives. The former are complex verbs generated in the syntax and the latter are simple verbs generated in the lexicon. This distinction between the two types of causatives in CEA is because the former causatives display a regularity of syntactic behaviour and semantic behaviour i.e. the Syn C and the Sem C. The latter causatives may not only display an irregular syntactic and semantic behaviour but also a categorial change in their causativization from base forms that may be a noun, an adjective or an active participle.

iii) This study has also shown that the process of causativization in CEA is not simply the process of increasing the number of arguments in the predicate structure as assumed by generative grammarians such as J. Bresnan (1981); nor is it a process of transitivization in the syntax as assumed by G. Saad (1982). As the causative verbs in CEA represent a variable phenomenon, it may be unified by the general explanatory principle that allows the causative affix in the morphologically derived covert causative verbs to exercise subject control in the sense that it assigns to its subject the θ role CAUSER. It is in this respect that causativization in CEA is basically subject control, rather simply complement control. When the base form from which the causative verb is derived is a verbal form, the process of causativization changes the external argument AGENT SUBJECT to a CAUSER SUBJECT. But when it is a nominal base form, then causativization is the externalization of its subject from THEME SUBJECT to a CAUSER SUBJECT. This basic property of the causative predicate (i.e. subject control) distinguishes between the causative predicates in general whether of one, two or three argument predicates and the non causative predicates whether of one, two, or three argument predicates.

iii) The causative verb in CEA has been regarded as derived from the annexation of the causative affix to a base form of the zero level category. This is different from that assumed by Guasti (1991) for morphological causatives and from the generally held and traditional view that words in languages such as Arabic are derived from radical base forms. The reasons for

holding such a different view for the derivation of the causative verb in CEA have been shown to be due to the different syntactic behaviour of the different causative predicates derived from different base forms which are of different categorial statuses.

iv) The general approach upheld in this study is that of an eclectic approach not only as regards the assumption that the productive causatives are generated in the syntax and the non productive causatives are generated in the lexicon but also the indivisibility of the morphological component from the syntactic component. This is reinforced by the fact that even the sentence in CEA can be regarded as a verbal category of level V'. Furthermore, such an eclectic approach to the generation of causatives in CEA leads to the implication that there are also D and S-structure levels of of representation in the lexicon for the generation of non-productive causatives if we wish to maintain Chomsky's (1982a) assumption that at D-structure each argument occupies a θ position and each θ position is occupied by an argument. Therefore, the D and S- structures of Chomsky (1982a) in the syntax are vacuously applied for the generation of these non productive causatives, because they are identical to the S structure in the lexicon. It also follows that the case assignment of the NPS associated with the non productive causatives in CEA also takes place in the lexicon, i.e. at the S structure in the lexicon; and the θ marking is also at an LF in the lexicon. As for the generation of the productive causatives in CEA, these are generated in the syntax with a D and S - structure in the syntax in accordance with Chomsky (1982a).

v) To show the parallelism between the causative affix and the passive affix in CEA both have been regarded as generating maximal pr jections above the VP. Such a parallelism is found in that the former affix allows its predicate an increase in the number of its arguments; whereas the latter affix allows its predicate a decrease in the number of its arguments. Moreover, the assumption that the causative affix generates a separate projection above VP allows the proper θ marking of the arguments associated with the causative predicate with no violation of the θ criterion and there is no need to assume a biclausal structure for the causative construction at D-structure. It also allows the NPS associated with the causative predicate to be case assigned in accordance with Chomsky (1982a) without resorting to V-to-I movement, as proposed by Falk (1991).

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