Anaphors in Modern Standard Arabic Syntax with Reference to Modern Syntax Theories

دراسة الضمائر الانعكاسية في نحو اللغة العربية المعاصرة بالاشارة إلى نظريات نحوية معاصرة

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Dedication

This thesis is dedicated to my parents, Tawfiq Abdel Hadi and Amna Oun, who supported me from the beginning of my studying and taught me that acquiring knowledge should always be my priority. I would like also to dedicate it to my sisters and friends for their great support. Finally, I dedicate this thesis to all those who believe in the richness of learning.

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Anaphors in Modern Standard Arabic Syntax with Reference to Modern Syntax Theories

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Abstract

This study aimed at investigating reflexives, reciprocals and the intricate co-referential relations of noun phrases (NPs) in Modern Standard Arabic (MSA) syntax at deep structure (D-structure) with reference to Chomsky's (1981) and (1986) Principle A of Binding Theory and Koopman's (1984) and Jalabneh's (1992) verb-movement (V-movement). This study aimed at answering the following questions:

1. What are anaphors in MSA syntax?
2. Do they have antecedents in the same structures or not?
3. Are they governed in their distribution in the sentence? If yes how?
4. Does MSA have an accessible subject/SUBJECT in its structure?
5. Do anaphors precede their antecedents?

To achieve the objectives of the study, the researcher used (60) sentences as the sample of the study; out of which (49) sentences were formed by the researcher and checked by a panel of experts who were asked to determine the grammaticality of these sentences as a result the researcher implemented their comments and proceeded in analyzing these sentences. The remaining (11) sentences were extracted from Wright (1984), Maghalseh (2007) and Nahir (2008). The sentences were analyzed with the use of tree diagrams.

The study revealed the following results: anaphors in MSA are nominal anaphors and categorized as: (i) *nafs* 'soul' or *ᶜain* 'self', (ii) *jamiiᶜ, kaaffah, kul* and *ᶜaamah* 'all' and (iii) *kila* 'male dual'; *kilta* 'female dual' and (iv) *baᶜduhum baᶜdan* 'each other' anaphors; in addition, they need antecedents in the same (IP) if it is a simple sentence but if it is a complex sentence in which there is a small clause they seek for the nearest antecedents in the higher clause. Anaphors are governed in their distribution by a governor whether in the IP or outside it. Governors are [Verb, Preposition, and Agreement Features]. MSA is like English in the sense that it has a long distance anaphor or what is called the accessible subject/SUBJECT and anaphors can not precede their antecedents at the deep structure in which case the binding relation was established. The findings support that the hypotheses presented in this work have been proved correct.

دراسة الضمائر الانعكاسية في نحو اللغة العربية المعاصرة بالإشارة إلى نظريات نحوية معاصرة

إعداد

رندة توفيق داود

إشراف

الدكتور عاطف جلابنة

الملخص

هدفت هذه الدراسة البحث في الضمائر الانعكاسية والتقابلية (الأنافورز) وعلاقتهما بالأسماء التي تشكل معها علاقة متلازمة في نحو اللغة العربية المعاصرة في البناء العميق وذلك باستخدام المبدأ الأول من نظرية السيطرة للعالم تشومسكي (1981) و(1986)، وكذلك استخدام نظرية حركة الفعل للغويين كوبمان (1984) وجلابنة (1992). هدفت هذه الدراسة الإجابة على الأسئلة التالية:

1) ما هي الضمائر الانعكاسية والتقابلية (أنافورز) في نحو اللغة العربية المعاصرة؟

2) هل تعود هذه الضمائر على أسماء سابقة لها في نفس التركيب؟

3) هل هذه الضمائر مسيطرعليها في الجملة أم حرة؟ وإذا كانت الإجابة نعم فكيف؟

4) هل يوجد في نحو اللغة العربية المعاصرة ما يدعى بالفاعل الذي يمكن الوصول له لتحقيق عملية (الأنفرا) في التركيب؟

5) هل تسبق الضمائر الانعكاسية والتقابلية الاسماء التي تعود عليها في الجملة؟

لتحقيق هدف الدراسة، استخدمت الباحثة (60) جملة كعينة الدراسة، (49) منها شكلتها الباحثة والتي تفحصتها لجنة خبراء التي طلب منها تفصح صحة قواعد الجمل ونتيجة لذلك نفذت الباحثة نصائحهما وتابعت تحليل هذه الجمل. و(11) جملة الباقية أخذت من كتب في النحو العربي لرايت (1984) ومغالسة (2007) ونهر (2008). حللت الجمل باستخدام الرسم الشجري.

توصلت الباحثة إلى النتائج التالية: احتوت اللغة العربية على ضمائر انعكاسية متعددة وهي (أ) نفس وعين (ب) جميع وكافة وكل وعامة (ج) كلا وكلتا (د) بعضهم بعضا، واللغة العربية المعاصرة فعلية/مفعولية وتحتوي على ضمائر انعكاسية اسمية وليست فعلية بالإضافة إلى أنها تحتاج إلى أسماء سابقة لها لتشكل معها علاقة ثنائية توافقية داخل الجملة إذا كانت الجملة بسيطة. أما إذا كانت الجملة معقدة بحيث تحتوي على جملة صغيرة فإن تلك الضمائر تبحث عن مسيطر خارج إطار تلك الجملة أي في الجملة العليا. سُيطر على تلك الضمائر بمسيطر سواء كان داخل الجملة أو خارجها، يتمثل المسيطرون بالفعل وحرف الجر وعنصر المطابقة. تشابهت اللغة العربية المعاصرة بالإنجليزية من حيث احتوائها على ضمير انعكاسي يقع بعيدا عن الاسم الذي يعود إليه والذي يدعى (الفاعل الكبير\ الفاعل الذي يمكن الوصول إليه) ولا يمكن للضمائر الانعكاسية والتقابلية أن تسبق الأسماء التي تعود عليها بالعلاقة في البناء العميق. تدعم النتائج أن فرضيات هذه الدراسة قد برهنت صحيحة.

Chapter One

Introduction

1.0. Background of the Study

Arabic belongs to the Semitic language family which is spoken by almost 270 million people as native speakers in the Arab world. Furthermore, 1.2 billion Muslims all over the world use Arabic in their prayers and religious recitations since it has a religious significance. There are a number of well known forms or varieties of Arabic available these days, namely, (i) Classical Arabic, (ii) Modern Standard Arabic (MSA) and (iii) Colloquial Arabic. Classical Arabic had been in use since the 4th century A.C; it was the main spoken and written language, thus it was commonly used in literature. These days, it is rarely used because there are other varieties that took over. For instance, Modern Standard Arabic is maximally in use nowadays because it is used by educated people, media, classroom conversations and religious ceremonies. The difference between the Classical Arabic and the MSA is lexical difference; however, both varieties the Classical and MSA follow the same syntactic rules. The colloquial Arabic is non-codified variety which has many regional varieties is commonly used in daily dialogues and discussions among the native speakers in all the Arab World.

MSA has two types of sentences, namely, (i) nominal and (ii) verbal sentences. The former consists of a noun phrase (NP) and a predicate; the NP, in question, can be followed by another NP, adjectival phrase (AP), preposition phrase (PP) or verb phrase (VP). However, the verbal sentence involves an NP and VP. The structure of the VP decides the type of complement that might be projected. For instance, if a verb is intransitive, it will have no complements at all. On the contrary, if the verb is transitive, it

will have complements that depend on their occurrences in the structure on the sub-categorization nature of the used verb.

MSA, like any other language in the world, has specific features of number, person and gender. As far as the number is concerned, there are three distinct forms, namely, (i) singular, (ii) dual, and (iii) plural as compared to English which has only singular and plural. In other words, dual or more are treated as plural whereas in MSA the dual number has its own features insofar as case assignment and the binding relation are concerned. The properties of the number have to be overt in the predicate, particularly, in the nominal sentence in which all the agreement features have to be visible. Person and gender are overt in every pronoun. Here is some examples of MSA pronouns, *?ana* 'I' and *na<u>h</u>nu* ‘we’ are first person pronouns. *?anta* ‘you- male’, *?anti* ‘you–female’, *?antuma* ‘you- dual’ *?antunna* ‘you, female plural’, and *?antum* ‘you-plural-male’ are second person pronouns in MSA

MSA has the unique definite article *al* 'the' which is pre-attached to all types of nouns but not pronouns regardless of the agreement features, namely, number, person and gender; however, the indefinite article is used in MSA as an attached nunational marker which can not be used in segregation. However, in English there are definite and indefinite separate forms are 'the', 'a', 'an' and 'zero'. The indefinite articles can not be attached to the singular noun or else the sentence is ungrammatical whereas the definite article is used with all types of nouns whether common or not. Of course, it can not be attached to proper names or pronouns because they are unique and have specific reference in most cases.

It is significant to notice that MSA has NPs that play vital roles in syntax as they occupy a number of grammatical functions, namely, subject, object, subject complement, object complement and object of preposition. Among them there are specific nouns that have definite anaphoric relations in the same structure, such NPs are called anaphors. Quirk (1980) has defined reflexive anaphors as the pronouns that end with the suffix –self as in 'oneself', 'himself', 'themselves'...etc, and the quantifier 'each' and the adverb 'other' as in 'one another' and 'each other'.

Anaphora is a nominal characteristic found in nominative / accusative languages as English and Arabic; whereas, in Ergative / Absolutive, as Hindi as a specimen that has a verbal reflexive structure. In this situation, the anaphoric marker is added to the primary verb. Anaphors in MSA have co-referential relations with other expressions, namely, the antecedents in the same sentence. Noun phrases are determined by their referents; therefore, understanding their interpretation is fundamental in Arabic language.

The question of reference between NPs in the structure causes a number of confusions to syntacticians in modern linguistics. Therefore, the researcher refers to Chomsky's (1981-1986) views on Government and Binding Theory which provides a suitable model for the interpretation of anaphors in an argument position with co-referential relations.

1.1 Statement of the Problem

The problem of this work is to analyze the structure of reflexives, reciprocals and their intricate co-referential relations with relevant NPs in Modern Standard Arabic syntax with reference to Principle A of Chomsky's Binding Theory and Koopman (1984) and Jalabneh (1992). Anaphors in Arabic constitute various kinds of referential relations

that cause problems in the interpretation of NPs at the logical form (LF). This work attempts to overcome any difficulty of this concern with the help of government relation and other sub-theories of relevant concern.

1.2 Objectives and Questions of the study

Since this study is a syntactic analysis of anaphors, the researcher wants to explore how the Theory of Government and Binding may come up with good results with the help of the following questions:

1. What are anaphors in MSA syntax?
2. Do they have antecedents in the same structures or not?
3. Are they governed in their distribution in the sentence? If yes how?
4. Does MSA have an accessible subject/SUBJECT in its structure?
5. Do anaphors precede their antecedents?

1.3 Hypotheses of the study

The researcher hypothesizes the following:

1. MSA is a nominative/accusative language and has nominal anaphors.
2. Anaphors have antecedents in the same governing category.
3. Anaphors should be governed by a governor.
4. MSA has an accessible subject / SUBJECT.
5. Anaphors can not precede their antecedents by any way.

1.4 Significance of the study

The Standard Arabic grammar has been studied by Sibawayh since the eighth century; however, the formalization of Arabic syntax received little attention of the researchers’ and syntacticians' work. The significance of this study is represented by the

important role played by modern syntax in understanding the way the human mind functions. For instance, anaphoric relations aid Arabic speakers as well as foreign learners of the language to understand the way the sentence is structured. This work might help other researchers and investigators interested in analyzing MSA syntax to understand and solve the problems that might raise in the intricate relations between NPs particularly anaphors.

1.5 Limitations of the Study

This work is restricted to study merely anaphors in Modern Standard Arabic. The sample sentences that contain such structures were purposively taken out from MSA books of syntax including Wright (1984), Maghalseh (2007) and Nahir (2008); in addition, the researcher has formed sentences that were checked by a specialized panel of experts. Cautions must be taken so the results of this study would not be generalized since they are only restricted to the sample of the study which consists (60) sentences.

1.6 Definitions of Basic Terms

Anaphor: An NP that refers to an antecedent with which it agrees in number, person and gender in the same governing category.

Arguments: the entities such as NP, PP, CP and IP that bear a semantic role in relation to a predicate.

NP: A noun phrase is the phrase that has the lexical noun as its head, determiner as a specifier and a pre- modifier adjective if available. It occupies the grammatical functions a subject, object and complement

A-position: Argument Position is a position in the deep structure in which a theta role can be assigned to an argument.

A'-position: Non-Argument Position in the deep structure which a theta role can not be assigned.

Antecedent: It is an NP that precedes its anaphor in the sentence with which it has a binding relation and co-indexed.

Co-indexed: The process in which the anaphor and its antecedent carry the same indexation

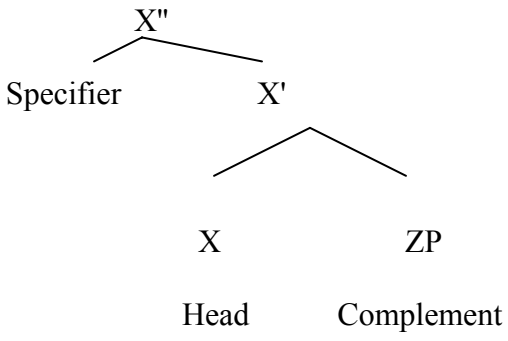
C-command: A process in which the governor has a direct command over a governed in a sister head relation

M-command: A process in which two constituents that do not dominate each other are related and that have no maximal projections as a barrier in between.

Governing Category: It is the minimal domain that contains an anaphor, its governor, and an accessible subject/SUBJECT.

R-expression: they are referent expressions that have unique reference in a language as in the case of the NP *Zaid*. Such an NP does not need an antecedent as it is free.

Specifier position: is a position that is attached to the X" node and whose head is decided by the structure.



Chapter Two

Review of Literature

2.0. Introduction

This chapter involves two sections, namely the theoretical literature and the empirical literature. The former involves situations from a number of languages in which researchers and linguists investigated anaphora and reciprocals under the constraints of various theories and perspectives. However, the second section involves studies related to empirical studies that applied theoretical perspectives to their studies.

2.1 Theoretical Literature on Binding

After the introduction of the theory government and binding, linguists started investigating Chomsky's views in a number of languages and in different techniques. Anaphoric relations under the constraints of the binding theory have been the main concern of many linguists all over the world. The Theory of Government and Binding proposed by Chomsky (1981) in which he suggested three conditions to govern such relation. He argued that pronouns are free in their minimal governing category because of their free reference. Likewise R-expressions are also free in their minimal governing category. However, anaphors including reflexives and reciprocals must be bound in their minimal governing categories in which case they are not free in their reference.

Thatcher (1911) categorized the process of anaphora which he called emphasis according to the sense in addition to literal emphasis as parts of emphasis in Arabic syntax. Literal Emphasis occurs, in Arabic by repeating a lexical word, a phrase and a clause. For instance, one could say [*al-shamsu al-shmsu ?am al-?ard* 'the sun the sun or the earth']. The significance of this kind of emphasis was to avoid any possible doubt for

the hearer. The second type was emphasis according to the sense/anaphora in which specific lexical words, namely, *nafs*/ *ᶜain* 'self', *kul* /*jamii ᶜ*, and *kaafah* 'all' were used to express the relation between them and the antecedent.

Wright (1974, and 1984) called anaphora as strengthening or corroboration which is part of apposition. He pointed out that there were two types of corroboration: (i) verbal corroboration and (ii) corroboration in meaning. The former was named emphatic repetition in which situation the same entity was repeated while the latter was indicated by using special anaphors which are *nafs* 'and *ᶜain* 'self', *kul, ᶜaamah* and *jamiiᶜ* 'totality', *baᶜd* 'part', *nisf* 'half', and *kila* and *kilta* 'both'. He pointed out that these entities are followed by the appropriate suffix that agrees in number, gender, and person with the emphasized word/ antecedent. He also explicated that the entity *jamiiᶜ* is used as an anaphor as in [*dhahaba al- ?awlaadu jamiiᶜu-hum* 'the boys left all of them']; however, if it is not followed by a pronominal suffix as *hum* 'them' as an instance given ahead, it will not be corroboration in meaning; it will be treated as an adjective as in [*dhaba al- ?awlaadu jamiiᶜan* 'the boys left all'].

Chomsky (1981) posited a number of principles and parameters of the Government and Binding Theory in which he proposed three conditions to govern the distributions of overt NPs in a structure.

It is argued that the syntactic categories noun (N), verb (V), preposition (P), and adjective (Adj) or adverb (Adv) are to be replaced by feature matrices. The category N; for instance, is interpreted as it is composed of two features: [+N] and [-V]. He argued the three NP types, anaphor, pronoun and R-expressions are not syntactic primitives. Rather, they can be broken down onto smaller components. Categories which are subject

to principle A which is the researcher's concern in this subsequent work are categorized by the feature [+ anaphor]. Categories that are subject to principle B are [+ pronominal]. Reflexives and reciprocals are specified positively for the feature [± anaphor] and negatively for the feature [± pronominal]. R-expressions have the feature [- anaphor, - pronominal]. The purpose of this feature division is to bring out commonalities between types of NP by means of shared features.

Anaphors, according to him, are governed in the minimal governing category containing them, their governors and their accessible subjects whereas pronouns and R-expressions are free.

2.1.1. The Binding Theory

Chomsky (1981 and 1986) had proposed the Binding Theory to regulate the interpretation of overt NPs in a universal manner. NPs according to Chomsky carry the feature [+N, -V]. They are basically of two categories, namely, (i) overt NPs including lexical common and proper nouns, pronouns and R-expressions and (ii) covert NPs including PRO, trace of moved NPs and pro. To account for these NPs in the structure, he proposed conditions that govern their distribution in the structure for a number for syntactic and semantic purposes. The conditions of the Binding Theory are listed below:

Principle A

An Anaphor is bound in its governing category.

Principle B

A pronoun is free in its governing category.

Principle C

An R-expression is free everywhere.

(c.f Chomsky, 1981, p.288)

The focus of this work is merely on anaphors including reflexives and reciprocals. Reflexive pronouns in English are (myself, yourself, yourselves, herself, himself, themselves, and itself) and the reciprocal pronouns are (each other and one another). It is evident that each of the anaphors has to agree with its antecedent in number, person and gender. The specimens in (1) and (2) illustrate the point.

1a) John hurt himself.

1b) *John hurt herself

1c) *John hurt themselves

1d) * John hurt yourself

2a. John and Mary love one another / each other.

2b. *John and Mary love one.

2c *John and Mary love another / other.

The anaphor 'himself' in (1a) agrees in number, person and gender with the antecedent 'John'. In other words, 'himself' is third person singular masculine. However, if any of the Ø-agreement features is not met, the sentence is odd in terms of the binding relation. Thus, (1b) is ungrammatical because the anaphor 'herself' does not agree with its antecedent 'John' in gender. The sentences (1c) and (1d) are ungrammatical because the former violates the number agreement while the latter does not agree in person. It is clear that the antecedent 'John' also confines the features of the anaphor. In (2a), the reciprocals ‘one another and each other' refer to the antecedents 'John and Mary'. (2b) and (2c) are incorrect because in the former, the reciprocal pronoun 'one' does not agree due to the omission of the second half; likewise, in the latter, the reciprocal pronoun 'each'

lacks agreement features without the second part 'other'. In short, whether the anaphor is reflexive or reciprocal, it must agree with its antecedent in number, person and gender. If any of these agreement features is not met, the sentences will render ungrammatical.

2.1.2. C- Command and Government Relations

It is evident that for an anaphor to meet the conditions of binding in Principle A, it has to be c-commanded by an entity in the same clause-mate in the D-structure. It is evident that a reflexive needs an antecedent with which it agrees with respect to person, gender and number and that the antecedent must not be too far away from the reflexive. In a precise sense, the antecedent must be bound in some local domain i.e. the binding domain. The reflexive must be locally bound. The examples (1) and (2) indicate that both the reflexive and their antecedents must be in the same clause and this kind of relation is referred to as the clause-mate condition. Therefore, the binding domain for anaphors would be the clause in which they occur. The c-command relation is shown in (3a) and simplified in (3b):

3a. [γ……..α……..β….]

[γ…….. β……..α….]

(c.f Chomsky, 1981, p.36)

In (3a), α c-commands β in a structural configuration in the Government and Binding Theory. This module is simplified in (3b):

3b. *C-command Relation*

α c-commands β iff

(i) α does not dominate β

(ii) β does not dominate α

(iii) The first branching node that dominates α, dominated β too.

(c.f Heageman, 1991,p.209)

The binding relation is defined in terms of c-command in (4).

4. *Anaphor -Binding*

α binds β iff

(i) α is in an A-position.

(ii) α c-commands β.

(iii) α and β are co-indexed

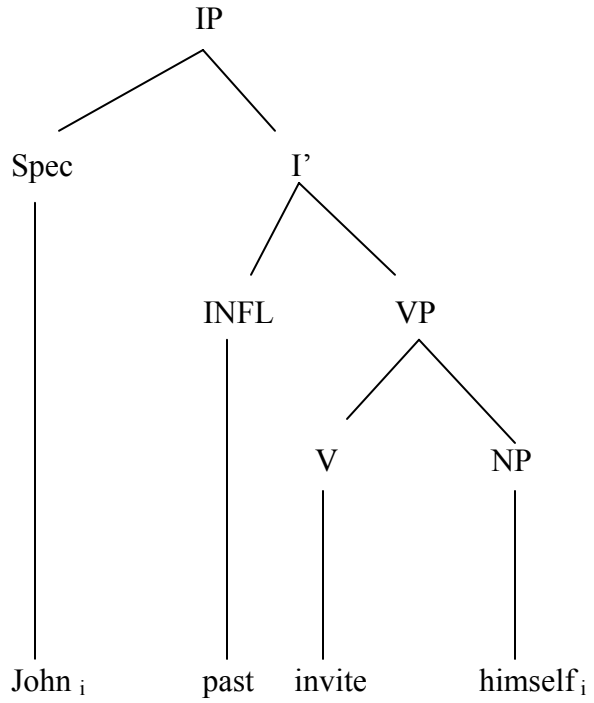
(c.f Heageman, 1991,p.209)

The above mentioned conditions on anaphors are illustrated in the specimen (5) and (6):

5a. John $_{(i)}$ invited himself $_{(i).}$

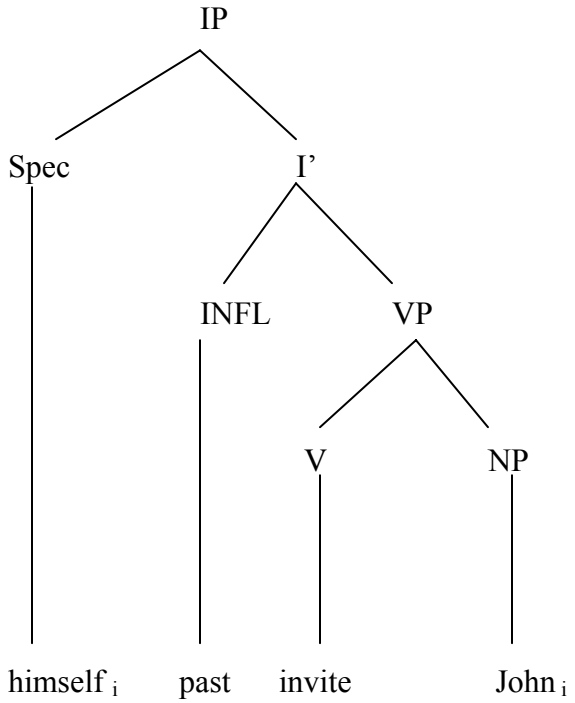
(5b) is the tree diagram representation of D – structure of (5a)

5b. D- structure



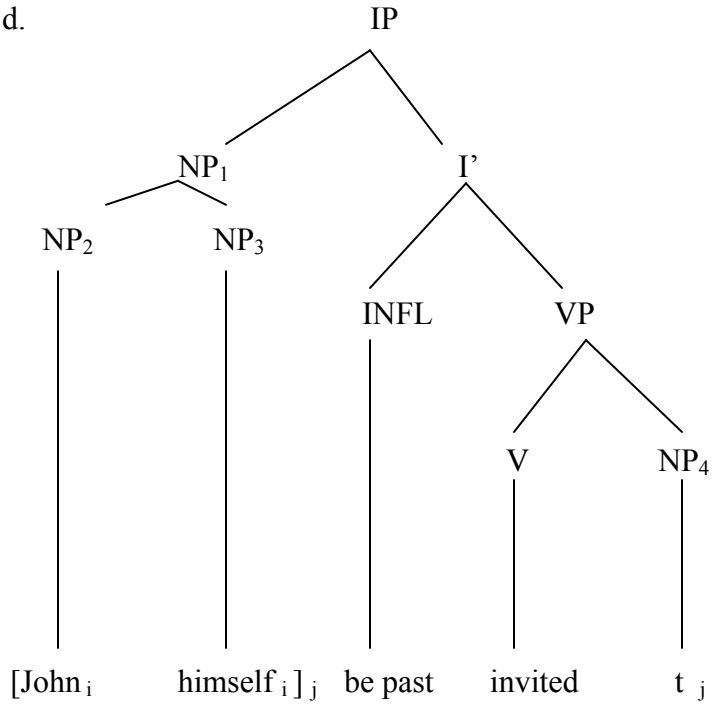
In (5b), the anaphor 'himself' is bound by the binder 'John' that occupies the argument grammatical position subject. It is evident that the antecedent c- commands the anaphor under the node IP. Therefore, both of them are co-indexed due to the fact that a reflexive can not have an independent reference but depends on its reference on the binder in the higher position in the tree diagram than the reflexive itself. However, if the anaphor precedes the binder in the same clause the binding relation cannot fit as in the wrong sentence (5c).

5c.



A careful notice to be taken into consideration is that the structural relations established between the binder and the reflexive anaphor is that the latter must be c-commanded by the former in the same clause. In this case, 'John' c-commands the NP 'himself' in the domain IP; this relation is not possible in (5c) as the anaphor is higher in the position that occupies. Hence, the anaphor in English cannot occupy the grammatical subject. It may occur in the scope of the subject in case of emphasis as is the situation in (5d) in which case the anaphoric relation happens as in (5b), then the anaphor moves to the shadow position of the binder 'John' as in the passive surface structure (s-structure) (5d).

5d.



It is obvious that the binder 'John' and the anaphor 'himself' were under the NP_4 node in the D-structure. In this position, the former c-commands the latter in the abstract level of D-structure and thus the co-indexation signs are labeled [i]. As the former is without a case, it has to move alone to the NP_1 node to occupy the grammatical subject and to be assigned the nominative case by the assignor I whereas the anaphor 'himself' is assigned the accusative case by the case assignor the transitive verb 'invite' in the same level of S-structure. In another situation, the anaphor moves to the scope of the binder to illustrate the emphatic relation in this type of structure. Therefore, the argument moves from A-position to A'- position to avoid the clash of the semantic relation.

In short, the anaphor and the antecedent are in the same minimal governing category in the local domain in which c- command relation is possible.

However, there are instances in which this kind of relation is not met as in (6):

6) $[_{IP1}$ John $_{(i)}$ believes $[_{IP2}$ himself $_{(i)}$ to be the smartest]].

In (6), the matrix sentence is 'John believes' and the embedded clause is 'himself to be the smartest'; 'himself' is an anaphor and so by principle A it should be bound within the local domain of the embedded sentence. Yet this is clearly not the case as shown in the co-indexing symbols. 'Himself' is in fact bound by 'John' who is outside the domain of the embedded sentence. Either Principle A is wrong or some subtle difference in the type of embedded sentence used to be taken into account in the definition of the local domain; therefore, the c-command relation is substituted by the m-command and government relations as in (7):

7. [β……. γ……α…… γ ……..], where

(i) $\alpha = X^o$

(ii) where Ø is a maximal projection, if Ø dominates γ then Ø dominates α

(iii) α c-commands γ

Then α and γ are contained in all the same maximal projection.

(c.f. Chomsky, 1981, p.164)

This relation is restated in Haegman (1991, p.125) for simplification as in (8):

8. Government

A governs B iff A m-commands B and no barrier intervenes between A and B.

Maximal projections are barriers to government.

It is easy to see that the relation between 'himself' and 'John' does not satisfy as we said earlier the c-command relation since they are not clause mates. 'himself' is contained in the lower infinitival clause while 'John' is outside it. In order to accommodate this kind of relation then (9a) and (9b) are given to verify the possible m-command relation.

9a. *John $_i$ believes [$_{CP}$ that [$_{IP}$ himself $_i$ is the best]]

9b. *John $_i$ believes [$_{NP}$ Mary's description of himself $_i$]

In (9a) the reflexive does not have a clause-mate antecedent and the sentence is ungrammatical. This is due to the fact that the anaphor 'himself' can not be linked with the binder 'John'. (9b) is also ungrammatical because the anaphor 'himself' can not be linked to the antecedent 'John' even though they are clause-mates. Thus a look at (6), it shows that the anaphor is in the accusative case as a case of Exceptional Case Marking (ECM). An essential property of ECM constructions is that the subject of the lower clause is governed and case marked by an outside governor. Therefore, the anaphor 'himself' is case marked the accusative case by the verb of the matrix clause 'believe'. Therefore, this enables us to extend the domain of the binding relation in which the anaphor may look for an antecedent in a higher clause, so there is a new formulation for the m-command as in (10):

10. A reflexive must be bound inside a clause that contains it and its governor.

This relation is explained in sentence (11).

11. John believes any description of himself.

In (11), there is the governor the preposition 'of' for the reflexive. The specifier position of the reflexive is not occupied by NP but by the determiner 'any'. This suggests the fact that there is a subject inside NP that determines the domain in which the reflexive can be bound as in (12):

12. Mary believes [$_{NP}$ John $_i$'s description of himself $_i$].

In (12), there is a governor which is the preposition 'of' and there is also an antecedent within the domain of the NP. Therefore, the reflexive must be bound in the

minimal domain containing it, its governor and a subject. The final revision of the reflexive rule and its interpretation is visible in (13) and (14) given below:

13. *John $_i$ thinks [$_{CP}$ that [$_{IP}$ himself $_i$ is the best detective]].

14. John $_i$ thinks [$_{CP}$ that [$_{NP}$ a picture of himself $_i$] will be on sale]].

In (13), the binding domain for the reflexive can be defined in the notions governor and SUBJECT. The inflection on 'is' is third person singular and masculine serves as the SUBJECT for the reflexive 'himself'; however, being SUBJECT is insufficient. Chomsky (1981, p. 217-222) proposed that for an element to be account as subject/SUBJECT to determine the binding domain of a reflexive, it must be an accessible subject/SUBJECT for that reflexive. A subject/SUBJECT is accessible for a reflexive if it is possible to co-index it with this reflexive. Therefore, (13) is ungrammatical because the antecedent 'John' is neither accessible subject nor SUBJECT because the anaphor occupies the subject position of the finite clause in which there is SUBJECT which are the agreement features but without a governor; however, (14) is grammatical because there is the governor 'of' and there is SUBJECT which are the agreement features of the model 'will' and there accessible subject 'John' in the higher clause.

In short, the final version of the binding relation established in this theory is given in (15):

15a. ‘A binding category for α and β iff β is the minimal category that containing α and a SUBJECT accessible to it.’

(Chomsky, 1981, p.220)

This notion is restated by (Heageman, 1991, p.207) for simplification in (15b):

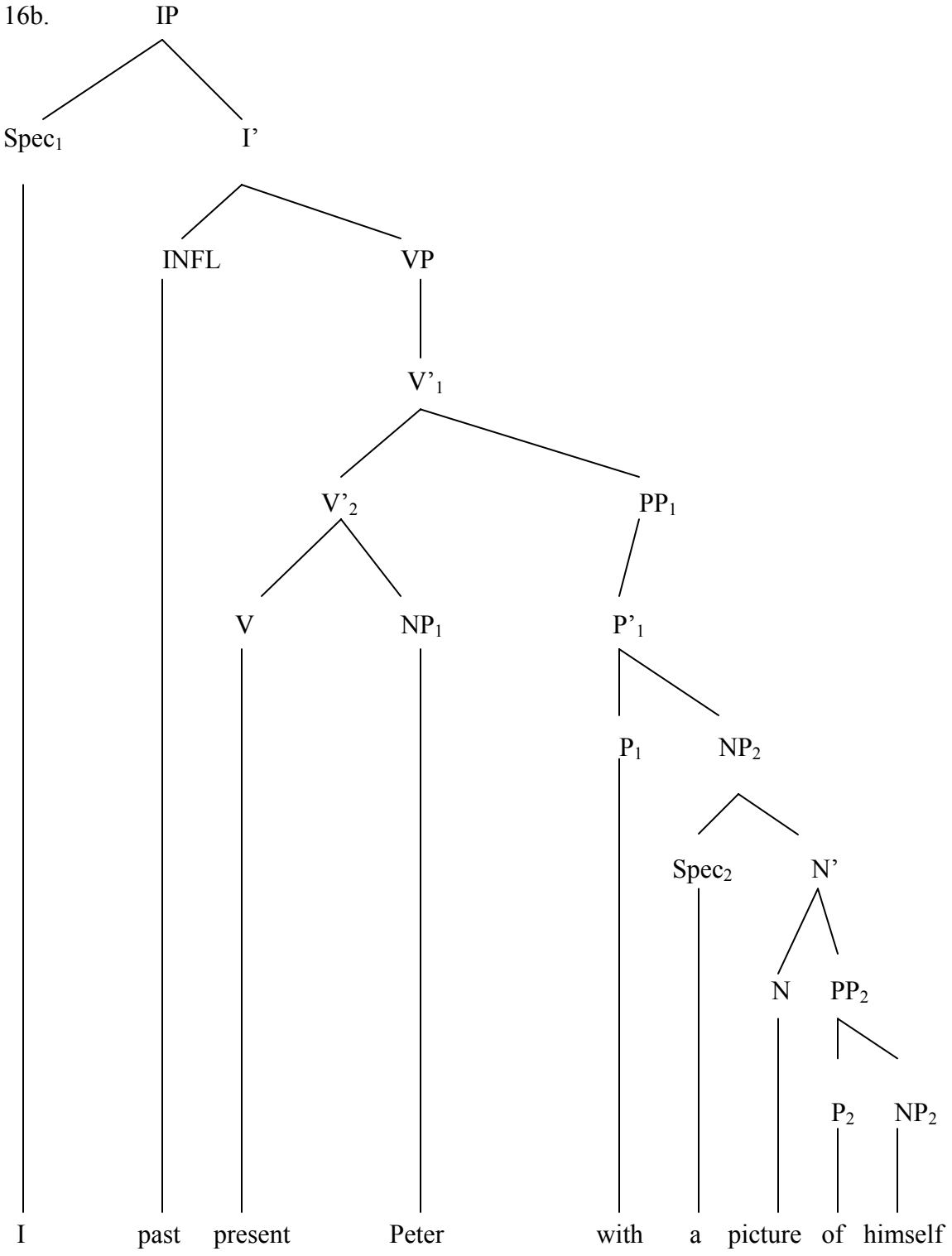
15b. A is an accessible subject/SUBJECT for B if the co-indexation of A and B does not violate and grammatical principles. That is a reflexive must be bound in the minimal domain containing it, its governor and an accessible subject/SUBJECT.

This definition in (15) may be applied to (16) and (17) to cover possible English sentences where all the grammatical principles of the binding relations are established.

16a. I presented [$_{NP}$ Peter $_{(i)}$ with a picture of himself $_{(i)}$]

(16b) is the tree diagram representation for (16a):

16b.



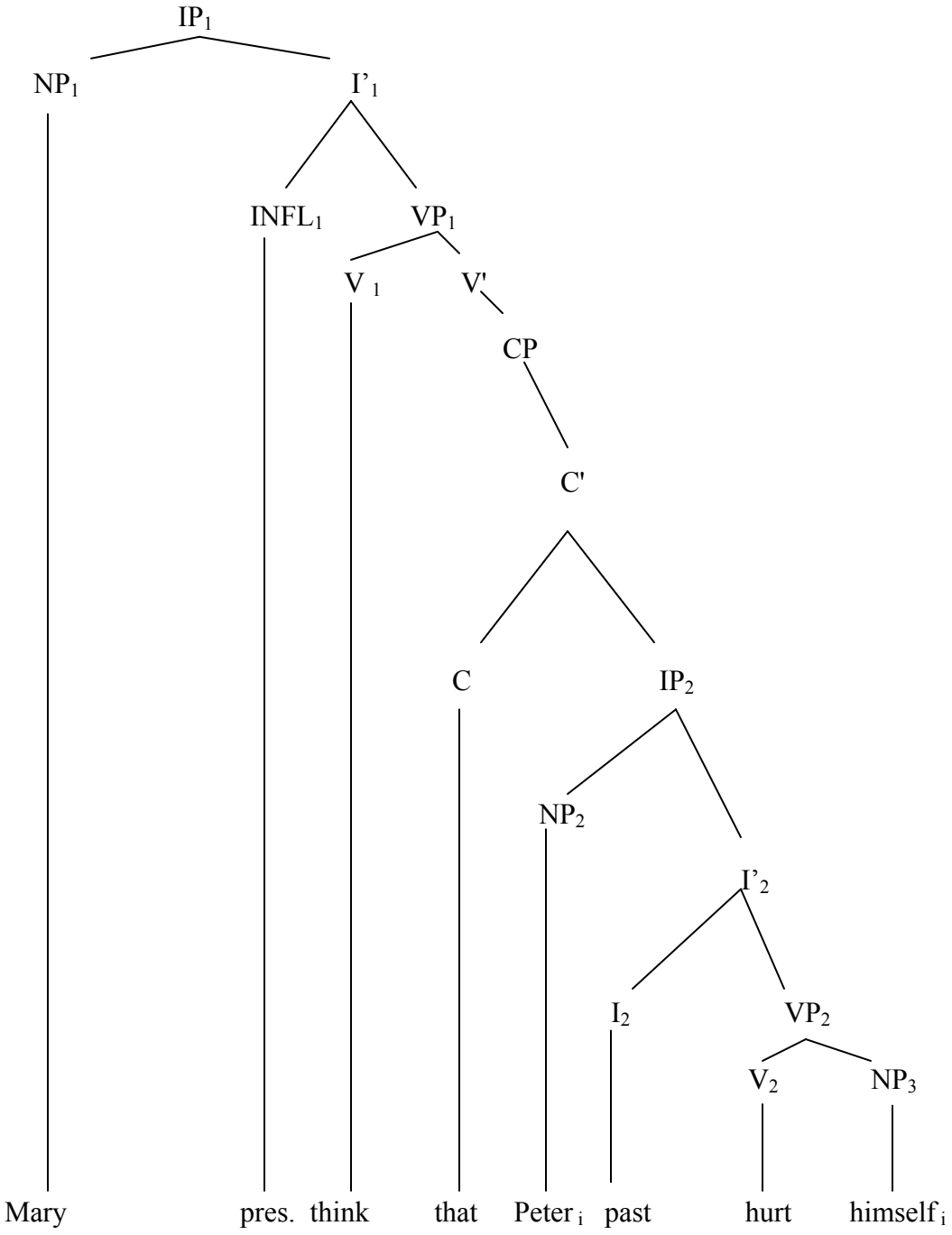
In (16b), the NP 'Peter' fails to c-command reflexive 'himself'. The first branching node dominating 'Peter' is V'_2, which does not dominate the reflexive because PP is a

barrier for this relation. However, in m-command relation, the reflexive 'himself' is governed by the preposition 'of' and m-command 'Peter' under the V'_1. In other words the NP_1 'Peter' in V'_2 m-commands the whole PP_1 and whatever under it in the VP.

17a. Mary thinks [$_{CP}$ that $Peter_{(i)}$ hurt $himself_{(i)}$].

(17b) is the tree- diagram representation of (17a):

17b.



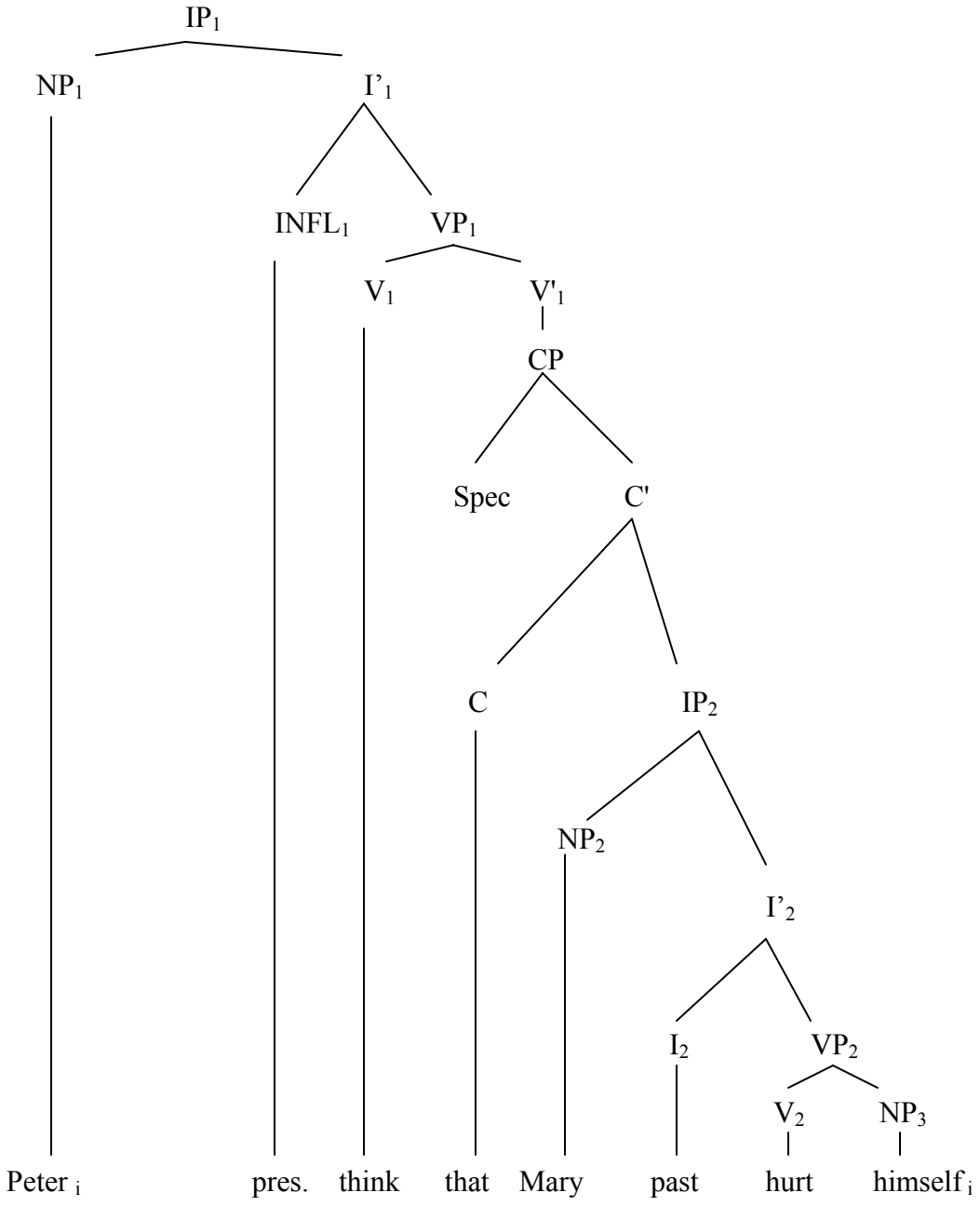
In (17b), the anaphor 'himself' is governed by the verb 'hurt' from which takes the accusative case. The NP_2 'Peter' m-commands 'himself' under IP_2. Therefore, the former functions as accessible subject to the anaphor. Hence the anaphor, its governor and an accessible subject are under the governing category IP_2. However, if any of these

grammatical principles of binding relations does not meet, the result is ungrammatical sentence as in (17c):

17c. *Peter$_{(i)}$ thinks [$_{CP}$ that Mary hurt himself$_{(i)}$]

(17d) is the tree diagram representation of (17c):

17d.



The sentence (17c) is ungrammatical though there is the governor 'hurt', but there no accessible subject in the governing category containing the anaphor. In other words the co-indexation with the NP_1 'Peter' is wrong as it is outside the first governing category. If we apply *i-with-i* filter, the first possibility is to co-index the anaphor with the nearest accessible subject 'Mary' as it is in the same domain; however, it can not be done as it has been mentioned earlier the anaphor has to agree in number, person and gender in the binding domain. As 'Mary' is a third person singular feminine, the gender feature does not match.

There are other instances in English in which the anaphor might a position in which it has a case but it violates other conditions of the principle A of the binding relation as in (18):

18) * I expect [$_{IP}$ himself $_{(i)}$ to invite John $_{(i)}$]

Though the anaphor 'himself' receives a case by the governor 'expect' as a case of ECM, the sentence (18) is ungrammatical due to two reasons. (i) It is impossible to create a co-indexation neither with the clause-mate 'John' in the infinitival clause nor with the accessible subject 'I' of the matrix clause. This is because the anaphor does not agree in person. Instead, if 'himself' is changed to 'myself' then there a possibility of having a grammatical sentence. (ii) An anaphor can occupy the grammatical subject position iff there is an accessible subject in the main clause.

In short, there are three ways of having embedded entities: (i) In case it is a CP as in (17a), (ii) an NP as in (12) and (16a) and (iii) an IP of non finite clause as in (6). In all these all the grammatical principles of condition A are met syntactically and semantically. The anaphor is co-indexed with an antecedent because it depends on it for

its interpretation at the logical form. The goal of *i-within-i* Filter is to avoid circularity in reference because of there is no kind of co-indexation between an anaphor and agreement features (AGR) in a non-finite clause because there is no agreement features available. Throughout the above discussion, the researcher has been trying to elaborate a set of principles of the binding relation that regulate the interpretation of reflexives. Starting from a small set of data which the researcher has extended throughout the discussion, the researcher has arrived gradually at more complex structures to prove the point. It is evident that the whole theory is also applied to reciprocals which are not explicated in details to avoid repetition.

Koopman (1984) conducted a study in Vata and Gbadi languages in South Africa in which she used the Verb movement (V-movement) to account for government relation insofar as the case assignment is concerned. The verb in the deep structure assigns theta roles but not a case as the NP is ungoverned and thus it moves to assure the case marking of some caseless NPs.

Al Ansari (1987) categorized emphasis as (i) meaning emphasis and (ii) the verbal emphasis. In meaning emphasis, there are special kinds of words which are classified into two groups. Firstly, totality *ajma*^{c} and *kul* 'all' are used only to emphasize plural nouns regardless of the grammatical positions they occupied. Secondly, *nafs* and ^{c}*ain* 'self' are used to emphasize singular, dual, and plural words wherever they occur. He stated that emphatic nouns are attached to pronominal suffix of the same agreement. However, verbal emphasis is used by repeating the same entity.

Maghalseh (1991 and 2007) mentioned the same two types of emphasis, namely, the verbal emphasis and the meaning emphasis. He pointed out that repeating the same

word occurred in Arabic for emphasis confirming what other Arab grammarians of Arabic language have said. For example, a noun, verb, conjunction, verbal sentence, nominal sentence, and pronoun can be repeated for emphasis. However, the meaning emphasis is used with entities such as *nafs, ᶜain , kul, jamii ᶜ, ᶜama, kila* and *kilta*. He pointed out that for these words to be used as emphatic nouns, they have to be attached to suffixes that refer to their emphasized nouns in number, gender, and person and case. He revealed that if the subject is covert, it must be paraphrased by a pronoun as the agreement features between the subject and the verb are lost in Verb-Subject-Object (VSO) order; for instance, [*jaa?a huwa nafsuhu* which literally means 'came pro he himself' / 'he came himself']. This situation is restricted to the reflexive pronouns *nafs / ᶜain* 'self' in use. He indicated that if the words *jamii ᶜ* and *ᶜaamah* 'all' are not attached to a pronominal suffix of reflexive, it will be *haal* 'an adjective' as discussed before.

Heageman (1991) argued that Latin and Chinese, Russian, Danish and Malayalam had both a possessive reflexive and a possessive pronominal; however, English lacked a possessive reflexive. She also argued that such languages fell in one group and behaved like Chinese in which case the reflexives possessive and the pronominal possessive occur in the [Spec, NP] position and were locally bound. They had distinct interpretations in the sense the reflexive possessive is locally bound whereas the pronominal possessive were locally free.

Jalabneh (1992) conducted a study in Arabic syntax in which the verb movement was the core of analysis insofar the government of the NPs is concerned. In the study, the verb is posited to the right side of the NP at the deep structure to govern the internal arguments to assign the accusative case and confirm the binding relations. The V-

movement takes place after the syntactic processes are performed. Then, the verb moves to [C, C'] position to initiate the sentence at the logical form and maintain the word order of Arabic as Verb Subject Object VSO.

Woolford (1999) investigated the effect of anaphoric relation in English, Italian and Icelandic in which anaphors were nominative. The researcher stated that Rizzi's proposal (1990) prohibited the occurrence of anaphors in subject position in the tensed clauses as they lacked agreement features and the antecedent as well. He also stated that Rizzi's hypothesis provided two predictions. Firstly, nominative subject anaphors should be grammatical in languages without agreement. Secondly, the anaphor agreement effect should be limited to nominative anaphors; it should also hold of anaphors with objective case. The researcher also showed that languages with objective agreement conformed to the prediction that anaphors could not agree unless there was a special anaphoric form. The researcher stated that anaphoric agreement was not to replace the Binding Theory (Principle A and B) but to simplify it.

Reinhart (1999) defined the Binding theory as the branch of linguistics which explained the sentence internal anaphora which was called bound anaphora. She stated that all languages have two anaphoric types, namely, pronouns and anaphors (complex self anaphor and simplex expression (SE) anaphors like *zich* in Dutch. Not all languages have both types for instance English does not have a SE anaphor, and Dravidian languages of India do not have a self anaphor while Germanic and many other languages have both.

Wasow (2000) discussed the generative grammar. In addition, he stated that the English pronouns are divided into two types, namely, (i) reflexives that end with the

suffix –self, and (ii) non-reflexives. He revealed that even though the two types are pronouns, they are used in different environments. He wrote the constraints that determined the distribution of anaphors in structures. He also pointed out that the reflexive pronouns must have a local antecedent, and the non-reflexive pronouns may not have a local antecedent.

Minkoff (2000) studied the English reflexives and stated that there were some reflexive citations that could not be accounted for the principle (A) of the binding theory. In stead, he posited principle D to support his assumption. It read "A non-selected antecedent can bind only an argument that is in its propositionally sensitive domain" (p.594).

Lawal (2006) discussed that the behavior of the reflexive pronoun in Yoruba posed a problem to the binding theory. He suggested that the Inflection (Infl) was vital element in licensing the long-distance reflexives in Chinese and other East-Asian languages.

Behrens (2007) has investigated the principle A of reciprocals. He stated that reciprocals occurred only with plural subject. This was due to its nature of being plural. He argued that the discontinuous reciprocals in which one participant was back-grounded and hence realized as an oblique phrase; another phenomenon was the singular subject in which one participant was overtly realized while the other is covert. The last phenomenon he discussed was the plural subject reciprocals. The researcher presented the data from four languages, namely, Hungarian, German, Modern Greek, and Serbian. He used a cross-linguistic approach for the differences and similarities. The researcher stated that the data confirmed the common claim that said reciprocal pronouns were involved in

heavy type reciprocal construction with their antecedents and likewise the plural anaphors.

Hofherr (2007) investigated the reciprocity in Somali language. She pointed out that the Somali language is a Subject Verb Object language (SVO). In her investigation of this notion, she gave examples of reciprocals like *is -nay* 'one another' and *is een* 'each other. She discussed that *is* is a part of the preverbal field; it is also used with transitive predicates that are not symmetric reciprocity. Symmetric predicated like the verb *kulmeen* 'meet' do not have *is* when the subject is plural. She also stated in her study that the asymmetric predicates such as *raaceen* 'follow' can be used with reciprocal reading. Hofherr pointed out two preverbal particles that have reciprocal components. Those preverbal reciprocals are *wada* 'towards each other' and *kala* 'away from each other'.

Kremers (2008) defined reciprocals as expressions in which the subject and the object are indicated which differs from reflexives. Another difference between reflexives and reciprocals that was pointed out in Kremers' study was that the reflexives can refer to a singular subject while reciprocals must refer to a plural subject since they express various members of the subject. Kremers also pointed out that Modern Standard Arabic expresses reciprocity by several methods of using the reciprocal *ba^{c}d* 'some' that is used in a correlative manner. The investigator also investigated the notion of reciprocity in Standard Arabic and spoken Arabic such as Egyptian Arabic, Moroccan Arabic and Syrian Arabic in which the use of reciprocals was expressed.

2.2. Empirical Literature

Abdul Rauf (1977) investigated the notion of emphasis as a significant emphasis to indicate in modern terms anaphora. He generally defined emphasis as a follower that is used to assert a statement and remove any possible doubts about that statement. He also mentioned the same lexical entities as others before and listed them as *nafs* / *ᶜain* 'self' and *kul* / *jamiiᶜ* 'all'. He argued that the followers, namely, *kila* and *kilta* 'both' are regarded as quasi duals. He stated that the emphatic noun must follow its emphasized one in declension case as in [*jaa?a al- waldaani nasfsuhuma* 'the two boys came themselves'] but one cannot say [**jaa?a al- waldaani nasfsahuma* 'the two boys came themselves']. The ungrammaticality of the latter sentence lies in the form of the nominal declension of the emphatic form *nafsa* 'self / accusative'. In other words, the head subject *al-waldaani* 'the two boys' is in the nominative and thus the emphatic noun must be in the same case as in *nafsu* 'self /nominative' but it is in the accusative. Thus, according to him, in addition, to the agreement features of number, gender and person, the nominal case is also a must The other type of emphasis mentioned in his work is called the formal emphasis which is meant the repetition of the word as it has been discussed ahead.

Aoun (1985) investigated the existence of A'-anaphors in Italian. He noticed that the reciprocals must be separated by a prepositions or a noun phrase. He proved that the Italian reciprocal expressions in this position must be related to an antecedent in an A-position in their governing category; otherwise, it will be ungrammatical.

Koster and Koster (1986) pointed out how Dutch children of 4-10 years old acquire bound and free anaphors. A series of experiments were carried out to test sentences of the two types of anaphor (bound and free). The researchers used a picture-

sentence; they provided only one correct sentence for each picture for the four sentences. The result indicated that the percentage of the correct responses of sentences with free anaphors was more than the sentences with bound anaphors.

Hirawaka (1989) conducted an experimental study that examined how Japanese acquire the English reflexives as a second language. The sample of the study consisted of two groups; the first experimental group consisted of (i) 13 high school student aged 15 and 16, (ii) 14 high school students aged 16 and 17, and (iii) 20 high school students aged 18 and 19. The second group (controlled) consisted of (i) twenty two native speakers of Japanese aged 17-18 years old and (ii) twenty native speakers of English aged 17-19 years. The results of the study showed that errors of the subjects were due to first language interference.

Chen (1995) investigated the binding parameter in second language acquisition. He also remarked that the difference between English and Chinese was that the governing category for English reflexives was restricted to the embedded sentence while in Chinese the reflexive's antecedent can be either in local domain or not (long-distance anaphor). He discussed some studies of first language acquisition and studies that investigated long-distance anaphora in second language acquisition.

Choi (1997) analyzed the long distance anaphors in which the antecedent of reflexives was found outside their local domain in East-Asian languages like Chinese, Japanese, and Korean; in addition to other languages such as Russian, Italian, and Icelandic. He stated that there were two main streams when dealing with long-distance anaphors: the first one was the parameterization of the binding domain; the second was related to the movement in the LF. He also discussed that a long-distance anaphor can be

explained by eliminating the governing category from the binding principle. The overall conclusion of this study was that there was no exclusive approach dealt with long-distance anaphors; therefore, the thematic theory should intervene to explain the long-distance anaphors.

Demirci (2000) explored the acquisition of the binding in English Reflexives by Turkish speakers. The study concentrated on how the knowledge of reflexives interacted with the pragmatic knowledge while acquiring the language. The study examined if the pragmatic interpretation selection of the antecedent the researcher stated that even in Turkish the long-distant binding occurred. The experimental group consisted of 170 native speaker of Turkish. The control group consisted of 25 native speaker of Turkish. The age range was between 18 and 26. The experiment was to propose a sentence that had a reflexive then followed by two statements which question which NP was the antecedent by answering yes or no. According to the result of the study the Turkish second language learners preferred the local NP as it was bound by an antecedent. The researcher's second finding was that in the interpretation of English reflexives not only syntactic constraints but also pragmatics ones were imposed.

Mustafawi and Mahfoudhi (2002) conducted an experimental study to test the anaphors *nafs, umr,* and *ruuh* 'self' and other pronouns in Qatari Arabic. They basically tested principles A and B of the Binding Theory of Chomsky (1981) to see whether Qatari children have the knowledge of these principles while acquiring Arabic. They conducted two experiments to test their hypotheses. The subjects of the study were two children. The first child was a boy whose age was between 4-5 years and the second child was a girl whose age was between 5-7 years. The first experiment was truth value

judgment task in which the children were provided with sentences to judge their grammaticality. The researchers used two ways in introducing the sentences: (i) toys to demonstrate the situation and (ii) puppets to comments on the events. The child was asked to decide whether the sentences said by the puppets were correct or not. The results of the first experiment were that the reflexive verbs with morphology weren't shown in the children's grammar later than reflexive verbs with separate proforms. Children reacted almost exactly in both situations where there were verbs with morphologically reflexive compartments and with simple verbs, and children reacted the same towards both anaphors *nafs* and *ruuh*. The second experiment of the study was the act out task. The researchers read loudly a sentence then children acted out their reaction. This experiment was used to confirm the results of the first experiment. The girl got 100% correct responses for anaphors and pronouns with regard to binding relations in all the sentences; however, the boy got 100% correct responses for anaphors but got only 40% correct responses for pronouns. The overall result of this study showed that the children had a command of principle A and B of the Binding Theory, and that the pronouns and anaphors had different syntactic restrictions.

Runner, Sussan and Tanenhous (2003) set out an experimental study to examine how the binding theory could be applied to the pronouns and reflexives. They displayed a picture and put three male dolls in front of the seated subjects. While seated, a pre-record was played to give the subject instruction such as "Pick up Ken, Have ken touch Harry's picture of him/ himself" the choices and responses of the subjects provided judgment to how pronouns and reflexives are interpreted. The results indicated that the pronouns were

constrained by the principle (A) of the binding theory. However, there was a violation in the binding theory of the interpretation of the reflexives of the NP pictures.

Hestvik, Nordby and Karlsen (2005) divided anaphora into two types depending on the level of representation in which the antecedent is found. They conducted the study on the Norwegian language. The types of anaphora were surface anaphora and deep anaphora. The surface anaphora was the anaphora in which the antecedents occurred at the sentence representation level. The deep anaphora was the anaphora in which the resolve of the reference was at the non-grammatical level of discourse representation. The researchers conducted two lexical decision task experiments using Norwegian stimuli. The first experiment's sample was 29 Norwegian students and used 20 experimental sentences; the results of this experiment were as expected and the responses of the students were fast and immediate since the anaphora was the surface type. The second experiment sample was 43 Norwegian students and used 20 stimuli sentences. The students' responses were slower in time to access the antecedent than the students in the first experiment. In short, the researcher viewed in this chapter various studies that investigated the anaphoric relations from the perspectives of Government and Binding Theory. The studies selected two styles: (i) some of them were purely theoretical and (ii) others were theoretical and experimental. The researcher reviewed the above studies and concluded that binding relation of Principle A is of a universal property and it has been applied to a number of languages. The researcher will make use of such studies to cover the binding relations in a new type of language, namely Modern Standard Arabic.

2.3 Summary

In short, the researcher viewed in this chapter various studies that investigated the anaphoric relations from the perspectives of Government and Binding Theory. The studies selected two styles: (i) some of them were purely theoretical and (ii) others were theoretical and experimental. The researcher reviewed the above studies and concluded that the binding relation of Principle A is of a universal property and it has been applied to a number of languages. The researcher will make use of such studies to cover the binding relations in a new type of language, namely Modern Standard Arabic.

Insofar as the theoretical literature is concerned, it was obvious that the focus of explaining the relation between NPs in a sentence was represented by the Theory of Government and Binding. In other words, they have to be co-indexed with the same co-indexation mark to conform their relations at the deep structure (D-structure). Therefore, the semantic interpretation at logical form (LF) is far away from confusion because of specification of NPs relation. Ever since this theory has been posited, linguist tried their best to account for this relation in other languages; therefore, the focus of this work is merely on Principle A to test the validity of this theory in Arabic syntax.

There were a number of studies that accounted for referential anaphoric relations from different perspectives, for instance, Thatcher (1911), Wright (1974 and 1984), Abul Rauf (1977), Al Ansari (1987) and Maghalseh (1991 and 2007) explained the kind of relation between the reflexives and reciprocals in terms of *tawkiid* ‘corroboration’. They categorized reflexives pronouns into categories that match the person, number, and gender because Arabic is very sensitive to the morphological realizations appeared at the end of the NPs. However, the same grammarians talked about another type of *tawkiid*

called *tawkiid lafẓi* ‘verbal corroboration’ in which case whether it is a phrase or a clause it has to be repeated by the same manner to indicate this kind of relation.

However, the syntactician Mustafawi and Mahfoudi (2002) and Kremers (2008) conducted two different studies on Arabic anaphors using the conditions of the Government and Binding Theory of Chomsky (1981). The former conducted experimental study to see whether Qatari children have the knowledge of the anaphoric in toys and puppets demonstration. They concluded that the purpose of sample they have selected has a good command of Principle A and B of the Binding Theory but the mentioned that pronouns and anaphors have different syntactic restrictions. However, the latter conducted a theoretical study on Standard Arabic, Egyptian Arabic, Moroccan Arabic and Syrian Arabic in which he concluded that reciprocals are governed in their minimal domain.

Chapter Three

Methods and Procedures

3.0 Introduction

This chapter revealed the methods and procedures followed and used to conduct this study. In section (3.1), the researcher provided the method, the population and the sample of the study. Section (3.2) introduced the terms of validity and reliability. Section (3.3) revealed the procedures that the researcher followed from the beginning of the study until the end.

3.1. Instrument of the Study

These are theoretical as well as an instrumental studies at one study. It is theoretical in the sense that the researcher refers to Chomsky's (1981 and 1986) views on Government and Binding theory particularly Principle A of Binding Theory. The researcher made use of the theory of V-movement posited by Koopman (1984) in Vata and Gbadi languages and then followed by Jalabneh (1992) to account for the government relation in Arabic syntax.

It is instrumental because the researcher used a number of sentences for both the Verbal Corroboration and Corroboration in Meaning from different references in the analysis. During the work the researcher used the instrument of the tree diagrams to analyze the anaphoric relations in MSA syntax.

3.2. The Population of the Study

The population of the study comprises of all MSA sentences, particularly, are those in which anaphors were used.

3.3. The Sample of the Study

The researcher selected purposively the sample of this study the total of (60) sentences. Out of which (49) sentences were formed by the researcher and checked by the panel of the experts available on Appendix (C) on page (122) and (11) sentences were extracted from Arabic books of Wright (1984), Maghalseh (2007) and Nahir (2008).

3.4. Validity of the Instrument

The sentences used in the analysis mostly were taken from Arabic books in Syntax written by Wright (1984), Maghalseh (2007) and Nahir (2008). The newly formed sentences were checked by a panel of experts specialized in Arabic syntax; they are mentioned in Appendix (D) on page (131).

3.5. Reliability of the Instrument

The instrument of the study is reliable because the theories used are universal and applied to a number of languages mentioned in the theoretical literature and in this study.

3.6. Procedures

In conducting this study, the researcher followed the following steps:

1. The researcher is interested in the syntactic analysis; therefore, she decided to conduct a study that investigates the syntactic analysis of her native language (Arabic) specifically in MSA. She decided problem of the study to be on anaphoric relation in MSA after reading about it a lot in both languages English for the theoretical perspectives and Arabic for the data.
2. She set out the questions that she wanted to investigate and put hypotheses on each question.

3. The researcher reviewed more studies and analyses concerning the application of the Principle A of the Binding Theory in many languages.
4. Then, she reviewed books and studies concerning the MSA anaphors under the constraints of the Binding theory and other perspectives.
5. After reading related studies and books that gave the researcher a very good idea about the problem of the study, the researcher started to extract sentences that include anaphors and analyzed them under the constraints of the binding theory.
6. While the researcher was analyzing the extracted sentences from the books, she realized that there are important structures not available in those books. Therefore, she formed new ones to achieve the goal.
7. Then, the new formed sentences were sent to a panel of experts to check their validity.
8. After meeting with the panel of experts and discussing the (49) new formed sentences, the researcher was able to analyze them.
9. The researcher analyzed anaphors by representing the deep structure of the sentences and by considering MSA SVO in the deep structure and VSO in the logical form.
10. The relations, conditions and constraints that govern and bind the anaphors were discussed and presented.
11. The researcher tested if MSA has long-distant anaphors by providing examples and analyzing them.
12. She wrote the answers of the questions of the study and compared them with her hypotheses and the relevant studies

13. She made discussion and concluded results which are compared to the studies mentioned in the Literature Review.
14. The researcher put the recommendations of the study.
15. She wrote the references and included the needed charts and the instrument of the study.

Chapter Four

Analysis and Findings of Anaphors

4.0 Introduction

In this chapter the researcher presented syntactic analysis of anaphors including reflexives and reciprocals. She presented at first types of corroboration in section (4.1) as illustrated by traditional Arabic grammarians, namely, reflexives and reciprocals and the cases and positions they could occur in. In section (4.2), she analyzed the deep structure of sentence in which anaphors are available in reference to the Binding Theory and examined all the possible structures in which they could occur. In addition, she illustrated the c-command and m-command relations, governor, governing category and accessible subject/SUBJECT. The researcher took the sentences form well known books of Arabic from Wright (1984), Maghasleh (1991) and Nahir (2008); in addition, she formed new sentences. Finally, she put the summary of the whole chapter.

4.1. Types of Corroboration in MSA Syntax

MSA is a nominative/accusative language as that of English language in the sense that reflexives are nominal in nature and represented by reflexive pronouns that must agree with their antecedents in Ø-agreement features. However, in ergative absolutive languages as Hindi, reflexives are called verbal reflexive as reflexive pronouns are attached to the verb in the VP and they also agree with their antecedents in all agreement features.

Wright (1984), Maghalseh (2007) and Nahir (2008) have argued that Arabic has two types of *tawkiid* **'**the corroboration' which are used to emphasize the features of the antecedent through another entity. One type of emphasis is called (i) *tawkiid lafẓi* 'verbal

corroboration' and the other is (ii) *tawkiid ma^{c}nawi* **'**corroboration in meaning'. The former is visible if the entity that the speaker wanted to emphasize is itself repeated in the same structure and having the same features of the emphasized. However, the latter is visible if the antecedent is reflected by a reflexive pronoun carrying the same agreement features. The two types are discussed as follows keeping in mind that the emphasis of this work is on the latter as it is called the anaphora.

4.1.1. *Tawkiid Lafẓi* 'Verbal Corroboration'

Wright (1984, part iii, p. 282), Maghalseh (2007, p. 472) and Nahir (2008, p. 998) have defined this kind of corroboration in the sense that it consists of the emphatic form of the word itself or its equivalent. The analysis below has examples from verbal sentences as well as nominal sentences which are discussed respectively.

1. jaa?- a al- lailu al- lailu

   come past det night det night.

(Maghalseh, 2007 p. 472)

'The night, the night came'

The sentence (1) indicates that the subject NP *al-lailu* 'the night' has been repeated to confirm the meaning that the night is falling. This kind of corroboration is visible also if the subject NP is in a form of a pronoun as in (2):

2. qumt- a anta

   stand past, 2nd , sg, masc you

(Wright, 1984, p. 282)

'You, you stood up'

In (2), the subject NP *anta* ‘you’ has been repeated by the agreement features second, singular and masculine inflected in the verb *qumta* ‘stood’ to indicate that the one who stood is the second person and no one else. Not only the subject NP but also the object NP can be repeated to show verbal emphasis as in (3).

3. ?uqaddis- u turaaba al- wa̲tan turaaba al- wa̲tan
worship pres, 1st, sg, masc soil det homeland soil det homeland

(Maghalseh, 2007, p. 473)

‘I worship the soil of the homeland, the soil of the homeland’

In (3), the object NP *turaba al-wa̲tan* ‘the soil of the homeland’ has been repeated to indicate that the speaker confirms his/her love to his/her homeland.

The preposition phrase can be also repeated to indicate corroboration as in (4).

4. marar- ø tu bi- ka bi- ka
pass past I by you by you

(Wright, 1984, p. 282)

‘I passed by you, by you’

It is evident in (4) that the verb passed is used intransitively and it selects the PP *bika* ‘by you’ as an adjunct. It is repeated to indicate specificness.

5. yartafiᶜ- u yartafiᶜ- u sha?nu al- mo?mini bi- allah
increase pres increase pres rank det believer by god

(Nahir, 2008, p.998)

‘The believer’s rank is increased by believing in God’

In (5), the verb *yartafiᶜ* ‘is increased’ is doubled to indicate the emphasis of action done by the verb as represented by increasing the believer’s rank before God.

It is also argued that the whole verbal sentence in Arabic can be corroborated but not only its parts as shown in the analysis above. This kind of emphasis is visible in (6).

6. ᶜaad a al- musaafiru ᶜaad- a al- musaafiru

return past det traveler return past det traveler

(Maghalseh, 2007, p. 473)

'The traveler, the traveler returned'

In (6), the whole verbal sentence *ᶜaada al-musaafiru* 'the traveler returned' is repeated to indicate the action of the agent *al-musaafiru* 'the traveler' who has returned.

As it has been mentioned above, the verbal corroboration is also visible with the equivalent of the emphasized in the subject position as in (7) and in the object position as in (8) respectively.

7. ᶜaad- a huwa muntaasira

return past, 3rd, sg, masc he victorious

(Maghalseh, 2007, p. 474)

'He, he returned victorious'

8. ra?aiy- ø- ta- na nahnu

see past you us us

(Wright, 1984, p. 282)

'You saw us, us'

In (7), the subject NP *huwa* 'he' is a verbal corroboration to the attached third personal pronoun to the verb *ᶜaada* 'returned'. Likewise, the object NP *nahnu* 'us' in (8) is the repeated form of the attached personal pronoun *na* 'us' to indicate corroboration.

In short, the verbal corroboration in the verbal sentence in Arabic happens to be the repetition of the subject NP as in (1) and (2), the object NP as in (3), the adjunct PP as in (4), the verb as in (5) and the verbal sentence itself as in (6). It is also visible with the equivalents in the sense that the attached personal pronouns can be emphasized by the separate pronouns of the same quality of the NP in the same grammatical function, namely the subject position as in (7) and the object position as in (8).

As far the corroboration of the entity is concerned, it is also visible in the nominal sentence in Arabic syntax. It is argued that the PP which is a part of the predicate of the nominal sentence is repeated to indicate corroboration as in (9):

9. fi al- daar- i fi al- daar- i zaid- un
in det house loc in det house loc Zaid nom

(Wright, 1984, p.282)

'Zaid is in the house, in the house'

It is obvious that in (9), the PP *fi al-daari* 'in the house' is repeated in the verbal phrase at other levels then moved outside the sentence to indicate specificness of location.

Arabic has a nominal structure in which the particle *?inna* 'truly' and an NP occur in the subject position which can be doubled to show emphasis as in (10):

10. ?inna zaid- an ?inna zaid- an qaa?imun
truly Zaid acc truly Zaid acc standing

(Wright, 1984, p. 282)

'Truly Zaid, truly Zaid is standing'

In (10), the particle and the NP *?inna zaidan* ‘truly Zaid’ is repeated in the subject position of the nominal sentence because syntactically *qaa?imun* ‘standing’ is the predicate of this structure.

This particular particle *?inna* ‘truly’ can be doubled to indicate emphasis as in (11):

11. ?inna ?inna al- kariim- a yahlumu
truly truly det noble man acc sedate

(Wright, 1984, p.283)

‘Truly, truly the noble man sedate’

In (11), the particle *?inna* ‘truly’ is doubled without its connected NP to indicate the adverb meaning of the particle itself.

The predicate of the nominal sentence if it is an NP as in (12) an adjective can be repeated to indicate corroboration as in (13):

12. al- haqq- u waadihun waadihun
det right nom clearance clearance

(Nahir, 2008, p.998)

Literally: ‘The right is a clearance, a clearance’

‘The right is clear, clear’

In (12), the predicate NP *wadihun* ‘a clearance’ is doubled to indicate emphasis of the entity as something clear but not vague.

13. tiijart- u al- riba haraamun haraamun haraamun
dealing nom det usury forbidden forbidden forbidden

(Nahir, 2008, p.1001)

‘Dealing with usury is forbidden’

In (13), the adjective *haraamun* ‘forbidden’ is tripled to emphasize that dealing with *riba* ‘usury’ is absolutely not acceptable.

The nominal sentence in Arabic is repeated in this kind of corroboration as in (14):

14. Allah- u akbar Allah- u akbar

god nom great god nom great

(Nahir, 2008, p. 998)

‘God is great, god is great’

In (14), the nominal sentence *Allahu akbar* ‘God is great’ is doubled to indicate the greatness of god.

It is also obvious that the answer to *naᶜam, naᶜam* ‘yes, yes’ and *la, la* ‘no, no’ can be repeated as an answer to short questions as in (15):

15a.?a- najah- a zaid- un

do pass past Zaid nom

‘Did Zaid pass?’

15b. naᶜam naᶜam

yes yes

‘Yes, yes’

15c. la la

no no

‘No, no’

(Nahir, 2008, p.999)

In (15b and 15c), the adverbs *na^{c}am* ‘yes’ and la ‘no’ were repeated to confirm the answer with positive or negative depending on the intension of the speaker.

In short, the verbal corroboration takes place in nominal sentence in the sense that the entities, namely, PP that occurs in the predicate as in (9), the particle *?inna* ‘truly’ and the NP in subject position as in (10), a particle as in (11), an NP as in (12), an adjective as in (13), a nominal sentence as in (14), and an adverb as in (15b and 15c) are repeated to illustrate corroboration in Arabic syntax.

4.1.2. Tawkiid Ma^{c}nawi ‘Corroboration in Meaning / Reflexive’

This type of corroboration is called the reflexive in which specific pronouns are used to indicate a kind of nominal emphasis. The reflexive pronouns are listed as: (i) *nafs* or *^{c}ain* ‘self’, (ii) *jamii^{c}, kaaffah, kul* or *^{c}aamah* ‘all’, (iii) *kila* ‘male dual’ or *kilta* ‘female dual’. Each pronoun is used to emphasize the meaning of the antecedent in any grammatical function in the structure (c.f. Wright, p. 272, 280-282).

Wright (1984, p.271) stated “When the pronominal suffixes are attached to a substantive in the accusative, governed by a verb, or to one in the genitive, governed to a preposition annexed to verb, they may refer to the agent of the verb, and consequently have a reflexive meaning.”

Maghalseh (2007) and Nahir (2008) as prominent Arabic syntacticians defined this particular corroboration as a type of corroboration that is designated by the above mentioned pronouns. They have also discussed the conditions that govern the use and distribution of such pronouns as instruments to indicate the corroboration in meaning. These conditions are namely; (i) the emphasized NPs must precede the specific pronouns

in their occurrence and (ii) the pronouns are attached to pronominal suffixes that agree in person, number, gender and case with the antecedents.

The agreement features and the marking of case are reflected in the pronominal suffix attached to the reflexive pronoun as follows: The first person singular suffix is shown by [*i*] and the first person plural is indicated by [*na*]. The second person singular masculine suffix is [*ka*], the second person singular feminine is [*ki*], the second person dual is [*kuma*], the second person plural feminine is [*kunna*] and the second person plural masculine is [*kum*]. The third person singular masculine suffix is [*hu*], the third person singular feminine is [*ha*], the third person dual is [*huma*], the third person plural feminine is [*hunna*] and the third person plural masculine is [*hum*].

It is evident that the reflexive pronouns and the features are to be represented in Arabic syntax along with a detailed analysis to prove their actual occurrence as follows:

16a. ra?ai- ø - tu nafs- i / ᶜaini fi al- mir?aat- i.
see past I self I in det mirror inst.

Literally: ‘Saw I myself in the mirror’

‘I saw myself in the mirror'

16b. *ra?ai- ø - tu nafs- a- ha / ᶜainaha fi al- mir?aat- i.
see past I self acc she in det mirror inst.

Literally: ‘Saw I herself in the mirror’

‘I saw herself in the mirror'

16c. nafsi / ᶜaini ra?ai- ø - tu fi al- mir?aat- i.
myself see past I in det mirror inst

Literally: ‘Myself, saw I in the mirror’

16c.*nafsi /	ᶜaini	ra?ai-	ø-	tu	fi	al-	mir?aat-	i.
	myself	see	past	I	in	det	mirror	inst

Literally: ‘Myself saw I in the mirror’

‘I saw myself in the mirror'

In (16a), the reflexive pronoun is represented by two lexical items, namely, *nafs* and ᶜ*ain* ‘self’ to which the suffix [i] is added to agree with the antecedent the first personal pronoun *tu* ‘I’ attached to the verb *ra?ai* ‘see’ as MSA is a verb initial language. If the agreement features are changed in the suffix that is attached to the reflexive pronoun *nafs*, the resulting sentence will be ungrammatical as in (16b). In other words, the third person feminine suffix *ha* ‘she’ does not agree with the antecedent *tu* in all syntactic matters. It is significant to notice that the reflexive pronoun nafsi/ ᶜaini ‘myself’ may precede its antecedent but out side the actual boundary of the sentence, the resulting sentence is correct as in (16c). However, if the same anaphor happens to occur inside the boundary of the same clause, the sentence definitely is ungrammatical as in (16c) because the reflexive can not occur in place of the subject NP. In short, MSA accepts an NP to precede the sentence in a syntactic process called ‘topiclization’; the moved NP could be reflexive or any NP.

However, in English, the anaphor the reflexive can not occur before its antecedents in all matters; it may occur in the scope of the subject for emphasis purpose as in:

17a. I, myself, saw in the mirror

If a comparison is made between the sentence (17a) and (16a), it will be obvious that MSA reflexive is as that of English because the reflexive pronoun occurs directly

after the NP subject antecedent as a kind of emphasis. Therefore, in English if the reflexive pronoun occurs in the VP, it is a kind of a normal reflection of the subject without indicating emphasis as in (17b) whereas if it occurs before the subject NP, it will cause the ungrammaticality of the structure whether the NP is segregated by a comma as in (17c) or not as in (17d) as English does not accept topiclization for reflexive.

17b. I saw myself in the mirror.

17c. *Myself, I saw in the mirror.

17d. *Myself I saw in the mirror.

However, English accepts a proposing of an NP outside the limits of the structure as in (17e):

17e. Banana, I like.

Emphasis is not restricted to the subject position in MSA; it is extended to other grammatical functions in which an NP might occur. For instance, (18) below illustrates a situation in which the emphasis is for the direct object and in (20) for other oblique cases.

18a. akal- ø- at hind- un al- ᶜinab- a nafs- a- hu /ᶜainahu

eat past fem Hind nom det grapes acc self acc it

Literally: Eat Hind the grapes itself

‘Hind ate grapes itself’

18b. *akal- ø- at hind- un al- ᶜinab- a nafs- u- hu /ᶜainahu

eat past fem Hind nom det grapes acc self nom it

Literally: Eat Hind the grapes itself

‘Hind ate grapes itself’

In (18a), it is the object *al-ᶜinaba* ‘the grapes’ that has been reflexivized because the reflexive pronoun *nafsahu* / ᶜ*ainahu* ‘itself’ is used to agree with it in all features and case. However, (18b) is ungrammatical because the reflexive pronoun though agrees in number, person and gender with the antecedent, it does not agree in case. In other words, the antecedent is in the accusative case because it is the object of the verb *akala* ‘ate’ but the reflexive pronoun is in the nominative case. The sentence can be made grammatical if the NP *al-ᶜinab* ‘the grapes’ is put in the nominative case as in (19):

19. na<u>d</u>aj- a al- ᶜinab- u nafs- u- hu / ᶜainuhu
grow past det grapes nom self nom it

Literally: grew the grapes itself

‘The grapes itself grew’

Not only the NP in the accusative case but also the NP in oblique case can be reflexivized and follow the same rule of corroboration in MSA as in (20):

20. mashai- ø- tu maᶜ al- junuud- i anafus- i- him / ᶜainihim
walk past I with det soldiers comm. self comm. Them

Literally: walked I with the soldiers themselves

‘I walked with the soldiers themselves’

In (20), the NP *al-junuudi* ‘the soldiers’ is in the commitative case and thus the reflexive pronoun is *anfusihim* ‘themselves’ is in the commitative case also. If the nominative reflexive pronoun *anfusuhum* ‘themselves’ or the accusative *anfusahum* ‘themselves’ are used, the sentence will be wrong because case is changed.

In short, this kind of emphasis in MSA is applicable to all other pronouns that might be added to a reflexive pronoun to reflect any NP.

MSA as it has been mentioned earlier is an inflectional language and thus it is rich in morphological as well as lexical realizations. It is different from English though they belong to the same language category as nominative/ accusative languages in the sense that the reflexive process is also indicated by items such as *jamii*^{c}*, kaaffah, kul* and, ^{c}*aamah* 'all' as in the following examples.

21. ra?ai- ø tu al- awlaad- a kul- a-

see past I det boys acc self acc

hum / jamii^{c}ahum/kaaffatahum/ ^{c}aamatahum

them

Literally: saw I the boys themselves

'I saw the boys themselves'

In (21), the reflexive pronoun *kulahum, jamii*^{c}*ahum, kaaffatahum* and ^{c}*aamatahum* 'themselves' agree in number, person, gender and case with the antecedent *al-walaada* 'the boys'. What is significant about this example is that the four reflexive pronouns, namely*, kul, jamii*^{c}*, kaaffah* and ^{c}*aama* are treated by the Arab syntacticians as 'all' but, in fact, they mean 'self' as they are used for reflexive and not for other syntactic issues. This indicates that MSA is rich and free in the selection of reflexive pronouns. It is argued that the reflexive pronouns *nafs* or ^{c}*ain* self' can substitute all of them in the same structure enjoying all the same merits. If the pronouns in (21) are compared to that of English they are treated as quantifiers as in (22a) but not (22b):

22a. I saw all the boys.

22b. *I saw the boys all

However, this is not possible in MSA due to the fact that if the pronouns are used as quantifiers, they have to precede the NP and can not be attached to nominal suffixes to indicate reflexive. The pronouns are used as quantifiers in (23):

23a. qabal- ø- tu kulla/ jamii^{c}a / kaaffata / ^{c}aamata al- awlaad- i

meet past I all det boys gen

Literally: met I all the boys

'I met all the boys'

23b.*qabal- ø- tu kull- a- hum/ jamii^{c}ahum / kaaffatahum / ^{c}aamatahum

meet past I self acc them

al- awlaad- i

det boys gen

Literally: met I themselves the boys

*'I met themselves the boys'

In (23a), the pronouns in question indicate a quantification of number but not reflexive because there is no nominal suffix attached to them and if this happens the sentence becomes ungrammatical as in (23b), (for more of the analysis of quantifiers, see Wright, 1984, p. 278-280).

In short, MSA is flexible insofar as the use of reflexive pronouns to indicate the corroboration in meaning is concerned.

The reflexive pronouns *kila* 'male dual' and *kilta* 'female dual' are also used in the reflexive sense as in (24) and (25) respectively.

24. takhasam- a al- rajul- aani kil- aa- huma

quarrel past det man both self masc./dual both

Maghalseh (2007, p.477)

Literally: quarreled the men both themselves

'The two men quarreled with themselves'

25. takhasam- ø at al- mar?- at- aani kil- taa- huma

quarrel past fem det woman fem both self fem/dual both

Maghalseh (2007, p.477)

Literally: quarreled the women both themselves

'The two women quarreled with themselves'

In (24), the reflexive pronoun *kilahuma* 'themselves' agrees in number, person, gender and case with the antecedent *al-rajulaani* 'the two men'. Likewise in (25), the reflexive pronoun *kiltahuma* 'themselves' agrees in number, person, gender and case with the antecedent *al-mar?ataani* 'the two women'. It is obvious that these two reflexive pronouns can be substituted by *nafsuhuma*/ *ᶜainuhuma* 'themselves' without affecting the grammaticality of the two sentences. What is significant about these two reflexive pronouns, they can also be used as quantifiers in different situations as in (26) and (27) respectively.

26a. kilaa- huma qadim- ø- aa

dual/masc. both come past dual

Maghalseh (2007, p. 477)

Literally: both men came

'Both of men came'

26b. *kil- aa- huma qadim- ø- aa

self masc.dual both come past dual

Literally: *themselves men came both

*‘Themselves the two men came’

In (26a), the determiner *kilahuma* ‘both men’ is used as a quantifier which indicates that ‘both men’ are coming but no one else. However, if the same entity is used as reflexive pronoun as in (26b), the sentences becomes wrong because as it has been mentioned earlier that the reflexive can not at any cost precede its antecedent.

27. kil- ta- huma qadim- ø- at aa

dual fem both come past fem dual

Literally: both women came

‘Both of women came’

In (27), the entity *kilatahuma* ‘both women’ is used as a quantifier that indicates duality of the NP that functions as a subject next to which the predicate *qadimataa* ‘both came’ occurs but not the reflexive. It is quite significant to mention here the occurrence of the entities *nafs* and but not *ᶜain* ‘self’ in MSA in the same context of (26a) and (27) to indicate the same function as in (28):

28. nafs- u al- rajul- i qadim- a

same nom det man gen come past

Literally: same the man came

‘The same man came’

In (28), the entity *nafsu* ‘same’ is used as an attributive adjective to the head noun *al-rajuli* ‘the man’ but not in the reflexive sense.

In short, the two pronouns *kila* and *kilta* are treated as reflexives if they occur after the antecedents with which they agree in all syntactic matters. However, if they are

used in other context in a sentence, they are treated as quantifiers as well as NPs as in (26a) and (27) occupying grammatical function. Similar to this is the entity *nafsu* ‘same’ is used as an adjective but not a reflexive as in (28).

4.1.3. *Tawkiid Ma^{c}nawi* ‘Corroboration in Meaning / Reciprocals’

Wright (1984) argued that Arabic has the reciprocal pronoun *ba^{c}duhum li ba^{c}din* ‘one another’ and *ba^{c}duhum ba^{c}da* ‘each other’ to indicate reciprocity that belongs to the verbal form. A reciprocal construction requires a plural subject whether overt or covert because it expresses that the fact that each member of the group performs an action described by the verb not on themselves but on others i.e. x and y hit each other means x hits y and y hits x. The specimens (29) and (30) illustrate their occurrence in MSA syntax whenever the subject is third person plural who can be expressed either by a pronoun or a referent expression.

29a. taqaatalu	ø	ba^{c}d-	u	hum	li-	ba^{c}d-	in.	
fought with	they	past	some	nom	them	for	some	comm

Literally: fought with they some them for some

‘They fought with one another other’

(Wright, 1984, p.287)

29b. *taqaatal-	uu	ø	ba^{c}d-	i	hum	li-	ba^{c}d-	in.	
fought with	they	past	some	comm	them	for	some	comm.	

Literally: fought with they some them for some

‘They fought with one another other’

In (29a), the reciprocal pronouns are visible with *ba^{c}duhum li ba^{c}din* ‘one another’ refer to the antecedent the embedded plural subject ‘they’. It agrees with it in

number, person and gender but not case. This is due to the fact that the subject ‘they’ is in the nominative but the reciprocal pronouns are in the commitative because of the occurrence of the preposition *li* ‘with’ which is incorporated in the verb *taqaatalu* ‘they fought with'. It is quite important to mention a very significant syntactic fact is that the first part of the reciprocal pronoun in (29a) must carry the nominative case marker [u] due to this kind of relation. However, (29b) is wrong due to the fact that the first part *baᶜdi* is made to carry the commitative case marker [i] instead of the nominative [u] as that of the object of the preposition *li* ‘with’.

30a. yuhib- u- ø baᶜd- u- hum baᶜd- an

love pres. they some nom them some acc

30b.*yuhib- u- ø baᶜd- a- hum baᶜd- an

love pres. they some acc them some acc

Literally: love they some them some

‘They love each other’

In (30a), the reciprocal pronouns *baᶜduhum baᶜdan* ‘each other’ refer to the embedded subject ‘they’ in which they agree in number, person and gender but not case. This is due to the fact that though the first part of the reciprocal pronoun *baᶜdu* ‘some’ carries the nominative case due to the reciprocal relation with the subject, the whole NP *baᶜdan* ‘each other’ is in the accusative case because of the transitive verb *yuhibu* ‘love’. (30b) is ungrammatical because the reciprocal relation is made to be compatible with the object rather than the subject and the accusative marker [a] is add to *baᶜda* ‘some’ in stead of the nominative [u].

Likewise, this kind of reciprocal relation is visible whenever the subject is overt and is expressed by R-expression as in (31):

31. inqasam -a al- naashiru -una ba^{c}d- u- hum ^{c}alaa ba^{c}d- in
divided past det- publishers nom some- nom- them on some- loc
'The publishers were divided upon each other'

In (31), the reciprocal pronouns *ba^{c}duhum ^{c}alaa ba^{c}din 'upon each other'* agree the subject *al-naashiruuna* 'the publishers' in number person and gender but not case. It has been argued above that the reciprocal relation is shown by the nominative marker [u] attached to *ba^{c}du* 'some' agrees with *al-naashiruuna* , but the case of the second entity of reciprocal is decided to be in the locative because of the preposition ^{c}*alaa* 'upon'.

In short, the reciprocal in MSA has to carry the marker of the nominative in the first part but nothing else because it is an indicator of the action done by the covert subject upon the pronouns. If this kind of relation is made to match the second part of the reciprocal, the result will be ungrammatical sentences as in (29b) and (30b). The same relation is established even if the subject is overt in the sentence.

It is argued that the reciprocal pronouns can not be definite in MSA syntax whether the subject NP is indefinite (32) or definite as in (33):

32. *yulaaqii ba^{c}d- u- hum al- ba^{c}d- a
meet, -they some- nom- them det - some- acc
'They meet each other'

33. *ahab- a zaid- un wa hind- un ba^{c}d- u- hum al- ba^{c}d- a
love past Zaid nom and Hind nom some nom them det some acc
'Zaid and Hind love each other'

In (32) and (33), as the pronoun *al-ba^{c}da* ‘the some’ is made definite due to the occurrence of the definite article *al* ‘the’ before it regardless the subject NP is indefinite as in (32) or proper names as in (33). In other words, the reciprocal relation indicated by the marker [u] in *ba^{c}du* ‘some’ is insufficient to render the sentence grammatical. The sentences can be made grammatical only if the definite article is omitted.

Not only the subject is third person plural but also it can be a first person plural and second person plural indicated by a covert NP as in (34) and (35) respectively.

34. yajib- u ?an nastami^{c}a ba^{c}d- u- naa ilaa ba^{c}d- in
must pres. that listen- we some- nom- us to some- acc
'We must listen to each other'

35. ta- talaa^{c}abuuna ba^{c}d- u- kum bi ba^{c}d- in
2nd,pl manipulate-you, pl some nom you, pl with some comm.
‘You manipulate each other’

In (34), the subject NP is the embedded *nahnu* ‘we’ to which the reciprocal pronoun *ba^{c}duna ilaa ba^{c}din* ‘to each other’ refer; however, the subject NP in (35) is the second person plural *?antum* ‘you’ to which the reciprocal pronoun *ba^{c}dukum bi ba^{c}din* ‘with each other’ refer.

In short, the reciprocal construction in MSA must contain a subject NP in the plural form whether covert or overt regardless of the person. In such construction, the first part of the reciprocal pronoun must carry the nominative case marker of the subject although the case of the whole entity is decided by other syntactic factors namely the verb and the preposition. It is also noticed that the reciprocal pronoun can not be definite

and marked by the definite article *al* ‘the’ whether the subject is a proper or a common name.

4.2 Anaphora within the Framework of Theory of Government and Binding

4.2.1 The C-Command and the Government Relations in Binding Theory in MSA Syntax

It is evident that MSA is like English in the sense that it has nominal reflexives but not verbal like other final verb languages; however, MSA has a number of reflexive as well as reciprocals pronouns (henceforth anaphors) that are not available in English. In other words, their counterpart in English is merely shown by the pronoun ‘self’. The point to be raised here is that to test the existing relation between such anaphors and their antecedents in which the researcher made a reference to the Binding Theory of Chomsky (1981, p.183). It is argued that the focus is merely on condition one of the Binding Theory in which an anaphor is bound in its governing category. The relation between anaphors as bindees and their antecedents as binders depends merely on (i) c-command relation and (ii) government relation. It will be argued that the c-command relation in some way is helpful to verify the binding relation between anaphors and their antecedents with simple structures; however, when it comes to instances in which anaphors are quite far away from their antecedents, this c-command relation stands helpless and the government relation is very much needed. The notion of government in fact hugs the c-command relation because the later is included in the former. According to the binding relation the government theory is very much needed to establish the local relation

between the antecedents and the anaphors as shown by Chomsky's (1981, p. 164-265) definition the notion of government as in (36):

36. [β……. γ……α…… γ ……..], where

(i) $\alpha = X^o$

(ii) where Ø is a maximal projection, if Ø dominates γ then Ø dominates α

(iii) α c-commands γ

This definition is exemplified in Reimsdijk and Williams (1986, p.231) as in (37):

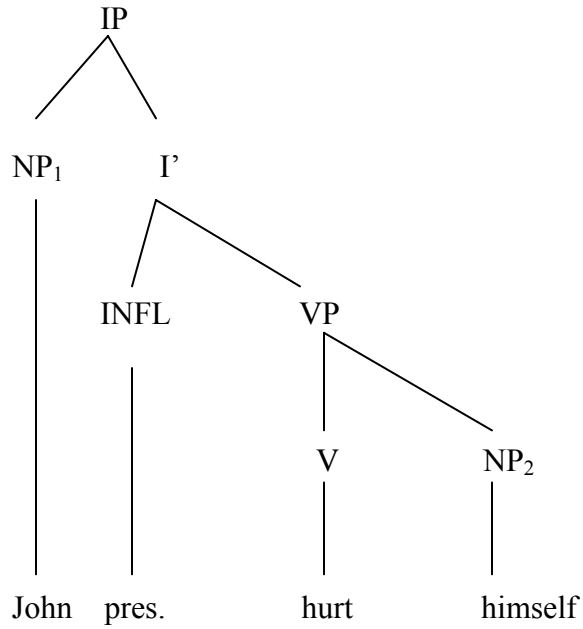
37. X governs Y iff Y is contained in the maximal X' projection of X, X^{max} and X^{max} is the smallest maximal projection containing Y, and X C-command Y.

Following the above logics within the framework of Government and Binding, the researcher may look at the tree diagram given below from English for representing the point that shows the government as well as C- command relation between the binder and the bindee as in (38):

38a. John hurt himself

The tree-diagram for (38a) is represented in (38b)

38b.



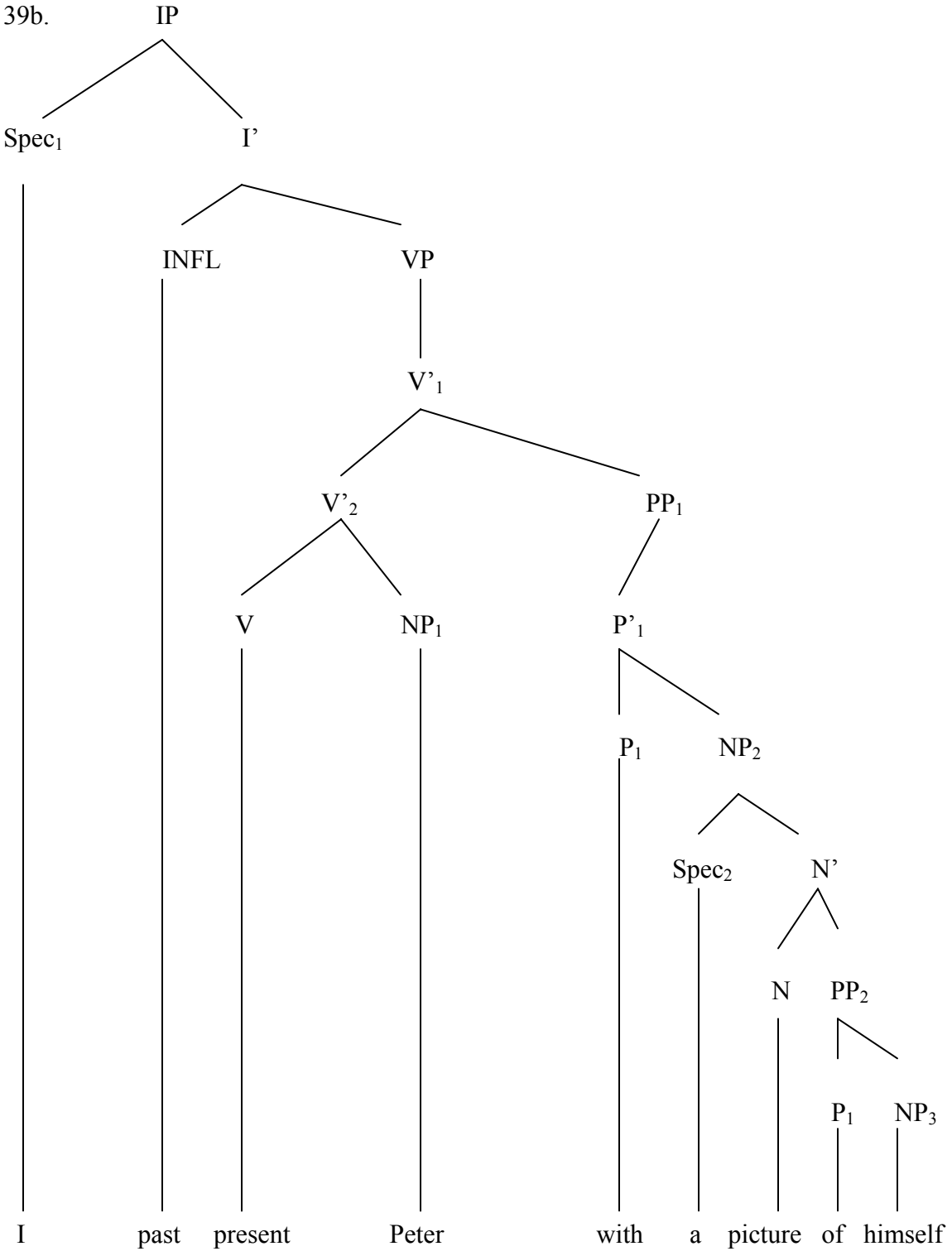
A look at the tree-diagram (38b) shows that the anaphor 'himself' is bound by the antecedent 'John' because of c-command relation in which case the NP_1 'John' c-commands I' and whatever under it and since NP_2 is in this domain, it c-commands NP_1.

However, this kind of relation is not suitable if the anaphor is far from its antecedent and there are barriers in between that hurdle the application of this relation. The sentence (16) from chapter two is recalled here for the convenience of the analysis as (39) to show that the government relation is needed to solve this problem.

39a. I presented $[_{NP}$ Peter $_{(i)}$ with a picture of himself $_{(i)}]$

(39b) is the tree diagram representation for (39a):

39b.



It is obvious that the NP 'Peter' fails to c-command the anaphor 'himself' because the first branching node is V' which does not dominate the anaphor because PP as a

maximal projection constitutes a barrier. It is due to such examples which might be available in MSA the c-command relation is replaced by the m-command relation within the government notion. Thus, the anaphor himself is governed by the preposition 'of' under the maximal projection PP and it is bound by the antecedent Peter under the maximal projection VP, in other words, the antecedent NP 'Peter' in V'_2 m-commands the whole PP and whatever under it.

Before talking about this kind of relation in MSA and how it is established to account for the binding relation between anaphors and their antecedents, it is very significant to talk about the notion of government in MSA syntax from the point of the traditional Arab grammarians' point of view.

As MSA is a verb initial language, the order of entities constitute a sensitive attitude with the verb insofar as the notion of the government is concerned. The Arab grammarians talked about the government of the direct object by a transitive verb and about the government of the object of preposition through a preposition. However, they were silent about applying the concept of government to the subject NP because the verb does not govern the subject either directly or through a preposition. The following example from MSA shows the relation between the governor and the governed insofar as the binding relation is concerned.

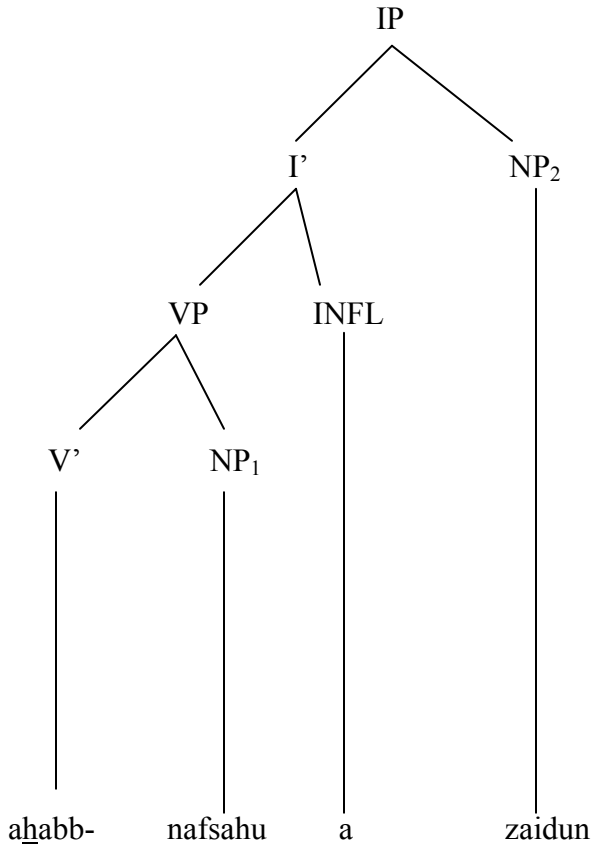
40a. a<u>h</u>abb- a zaid- un nafs- a- hu

love past Zaid nom self acc him

'Zaid loved himself'

One possible D-structure for (40a) is given in (40b):

40b.



Insofar as the government and the assignment of case is concern, (40b) shows that the governor INFL assigns the nominative case to the subject NP_2 *zaidun* 'Zaid' and is overtly marked by the case marker [un]. It is evident that the governor and the governed are under the maximal projection IP. The verb *ahabba* 'loved' governs the NP_1 *nafsahu* 'himself' and assigned it the accusative case in the maximal projection VP. It is interesting to know that under this kind of treatment in MSA the NP_1 *nafsahu* is projected from the VP but not from anything else. This is due to the fact that the NP *nafsahu* is the object of the verb and must be next to the governor as per the adjacency parameter. This projection is made in order not to violate the government relation between the governor and the governed. The NP_1 *nasfahu* 'himself' is bound by the binder the NP_2 *zaidun* 'Zaid' under the same IP. This NP_1 has to move next to the right side of the subject to

meet the word order of MSA at the logical form (LF) and the phonetic form (PF). The question that arises here though the binding relation is established between the anaphor *nafsahu* 'himself' and the antecedent *zaidun* 'Zaid' but this is insufficient insofar as other significant syntactic processes, namely, case assignment is concerned. Therefore, if the researcher posits the object NP *nafsahu* in the D-structure in which it is in the LF and PF, it will have the reflexive form but it will not have a case and the sentence will read incorrect as in (40c):

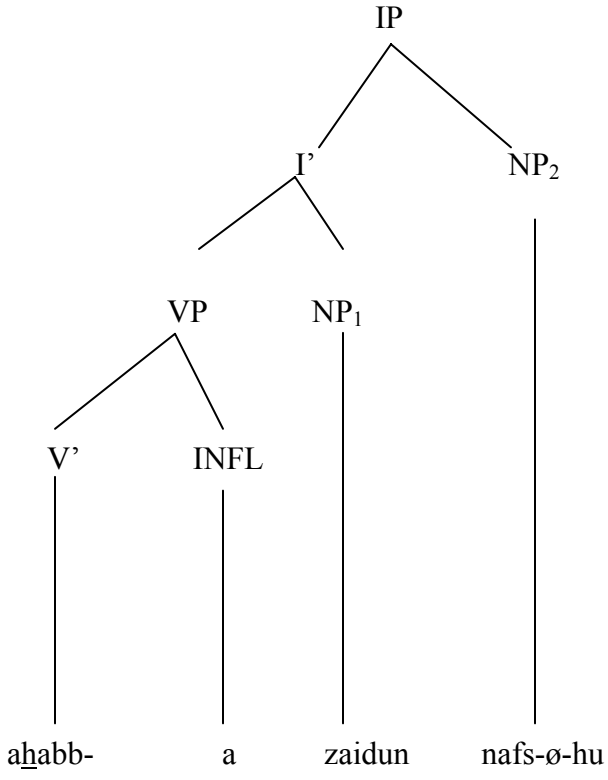
40c. *ahabb- a zaid- un nafs- ø- hu

love past Zaid nom self acc him

'Zaid loved himself'

(40d) is a possible D-structure for (40c):

40d.



Though the c-command relation is met in this example in the sense that the NP_1 *zaidun* 'Zaid' c-commands the object NP_2 *nafshu* 'himself' under the node IP; however, the government relation between the verb *a<u>h</u>abba* 'loved' and the same NP_2 does not meet because of the subject NP *zaidun* that constitutes a barrier to government. Therefore, the sentence is ungrammatical because the anaphor is without a case. However, if the scrambling rule is not applied to (40a) then the possible PF representation is (40e) which is ungrammatical.

40e. *a<u>h</u>abb- a nafs- a- hu zaid- un

love past self acc him Zaid nom

*'Zaid himself loved'

Another possible D-structure for (40a) is (41):

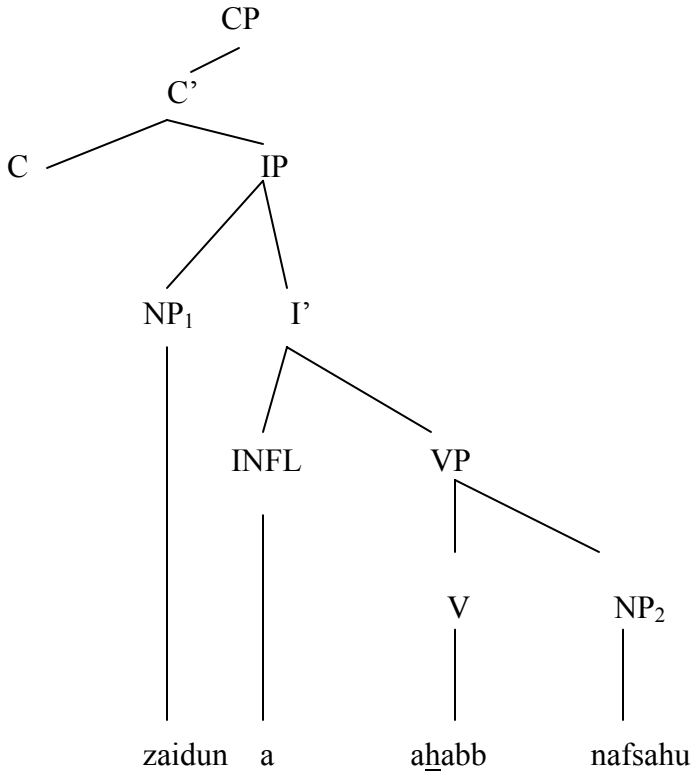
41a. zaid- un a<u>h</u>abb- a nafs- a- hu

Zaid nom love past self acc him

'Zaid loved himself'

(41a) is represented in the tree-diagram (41b):

41c



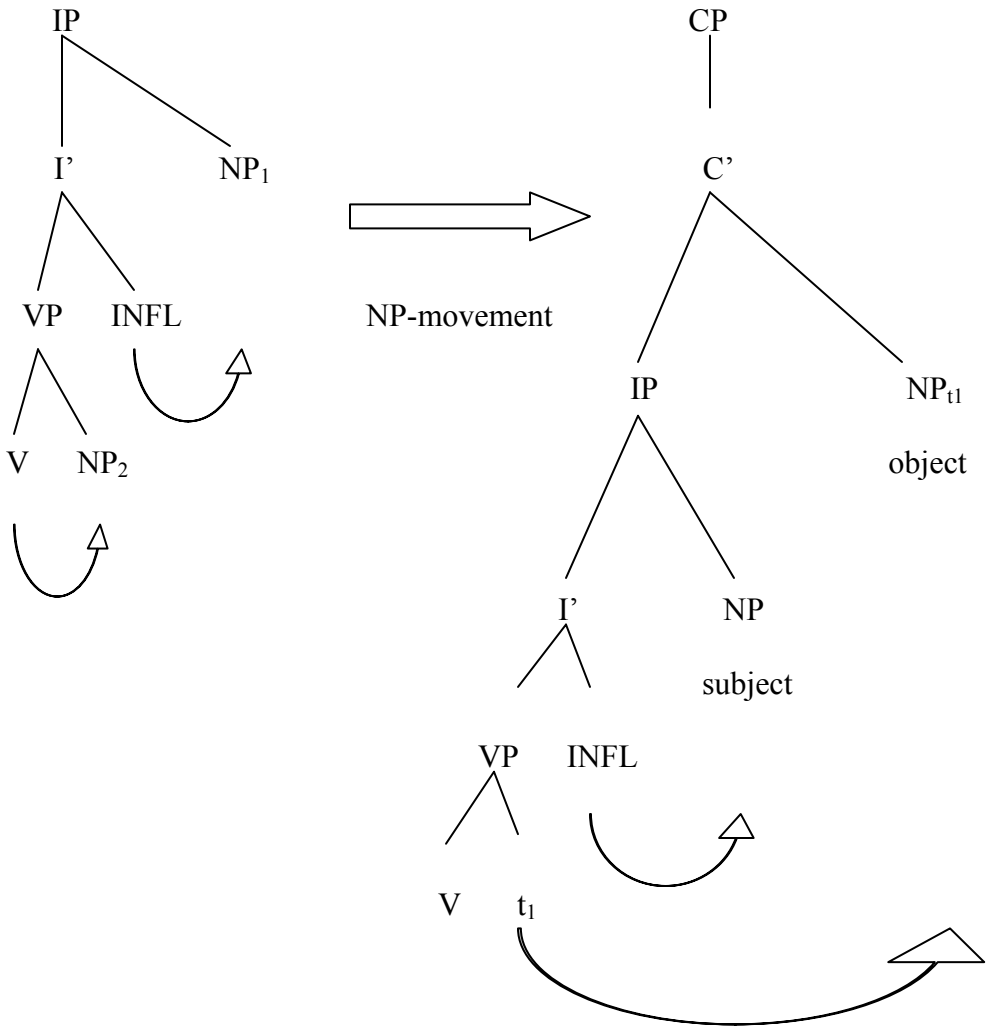
In (41b), the governor INFL [*a*] 'past' assigns the nominative case to the subject NP_1 *zaidun* 'Zaid' to which the case-marker [*un*] is attached. The governor and the governed occur under the domain of the maximum projection IP. The verb *ahabb* 'love' governs the object NP_2 *nafsahu* and assigns the accusative case overtly visible with [*a*]. In this D-structure, the binding relation is also established because the antecedent NP_1 *zaidun* binds the NP_2 *nafsahu* in the governing category IP. INFL is to be attached to the verb *ahabba* by the rule called affix hopping after it assigns the nominative case to the subject NP *zaidun* and the verb *ahabba* moves to the [C, C'] of IP. The significance of V-movement is that it posits the constituents of the sentence in the correct order at LF and PF so it does not violate the word order of MSA as mentioned in Jalabneh (1992). The rule is called V-movement is originally posited by Koopman (1984) to account for the assignment of case and other syntactic processes in Vata and Gbadi languages. She

argued that V-movement displays in essence the same properties as NP-movement. The formal property of this movement involves the equivalent of argument position for verbs that is a verb moves from V-position to a non-V-position. However there is a fundamental difference between the two movements whereas in NP movement, it is the NP, a maximal projection that moves, in V-movement, it is the verb, the head of the VP projection that moves.

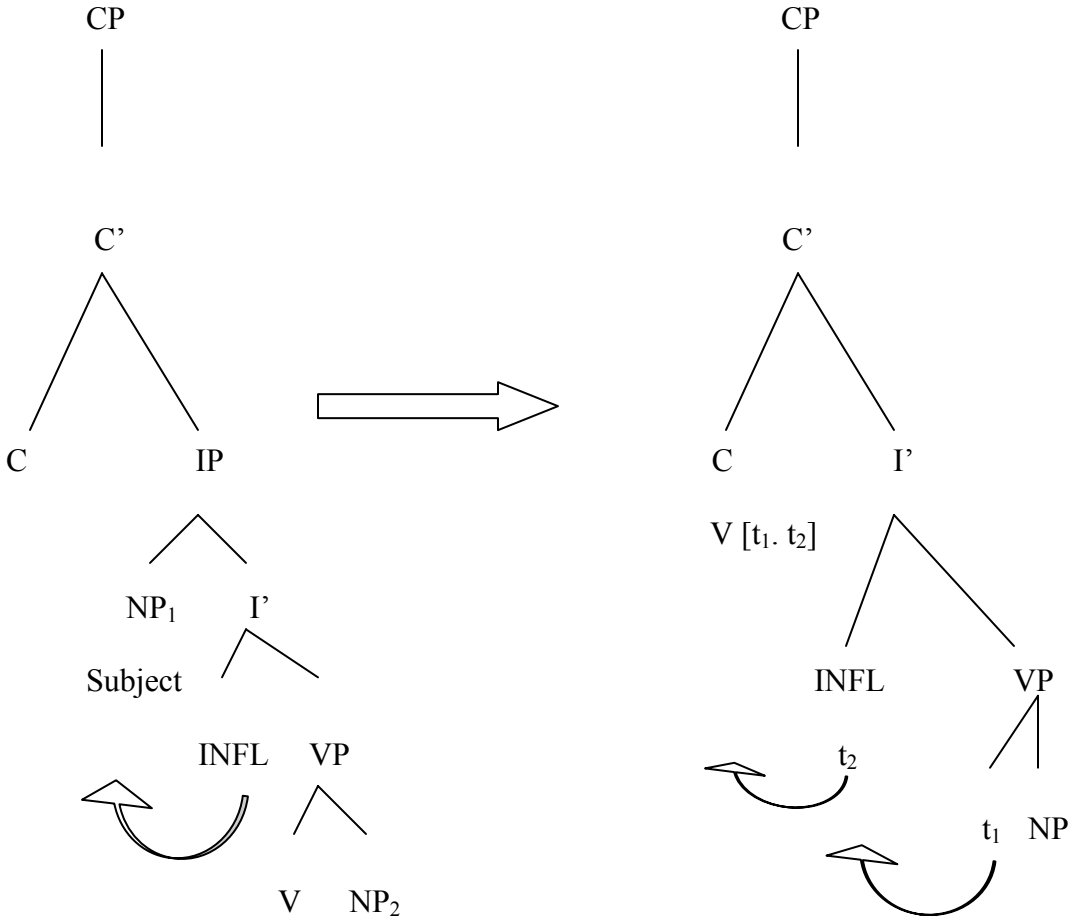
In Koopman's analysis V-movement is forced by the case-theory. She has convincingly shown that in Vata and Gbadi a case assigner must move in order to assure the case marking of some cases NPs. In MSA, V-movement takes place after it establishes the government relation for the binding process and assigns the accusative case to the same anaphor NP *nafsahu*. There is one motivation for this movement; it enables the verb to come to the initial position of a sentence which is the normal MSA word order at the level of LF and PF.

There are two alternatives before the researcher both of which involve a movement. The first alternative involves positing the VP as the leftmost branching node of the sentence at the level of D-structure and then moving the object anaphor to the complementizer position of the sentence after the accusative case and the binding relation are established as in (42a). The second alternative involves positioning the VP to the right of the INFL as the rightmost branching node of the sentence at the level of the D-structure, permitting it to both assigning a case to the object anaphor and establishing the binding relation with antecedent and then moving the verb to the initial position of the sentence as in (42b).

42a.


IP
I'
NP1
VP
INFL
V
NP2
NP-movement
CP
C'
IP
NPt1
object
I'
NP
subject
VP
INFL
V
t1

42b.



(c.f. Jalabneh, 1992, p.53)

In both solutions (42a) and (42b), the movements take place after the binding as well as the case relation are established because government is an essential condition for their application. However, the second solution (42b) has more advantages than the first in the since that there might be more than one projection in the VP that needs to be moved. The first solution (42a) might have more than one entity movement because a V might project two NPs and other PPs which need to move after the syntactic processes are performed on them whereas in the second solution it is only the lexical verb that is

forced to move to the complementizer position. Keeping this consideration in view, the researcher has chosen the second solution that is at the level of the D-structure the VP is posited to the right of INFL, as though MSA is underlyingly a verb medial language like English. The V-movement brings the verb to the leftmost branching node of the sentence and gives the researcher a correct word order; it leaves other possible selected constituents in the VP undisturbed.

4.2.2 Anaphors in Binding Relations

4.2.2.1. Reflexives

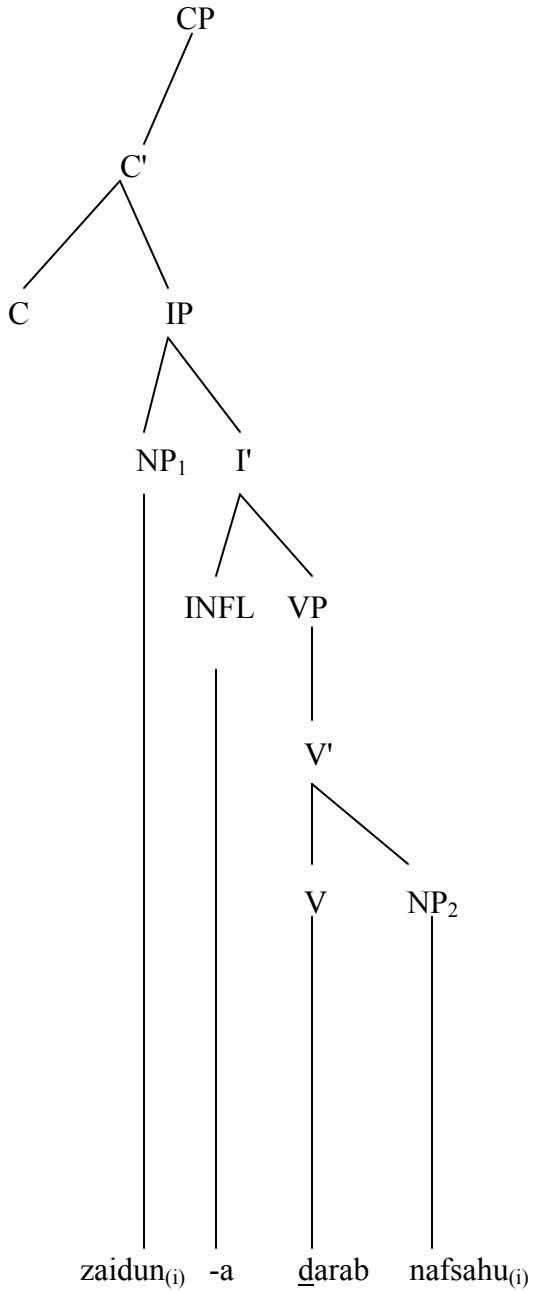
The first group of anaphors in MSA are represented by the pronouns *nafs* and *ᶜain* 'self'. They have to be attached to a pronoun which has a binding relation with the antecedent in the same governing category as in the specimen (43a):

43a. darab- a zaid- un nafsahu

Hit past zaid nom himself

(43b) is the D-structure tree diagram of (43a)

43b.

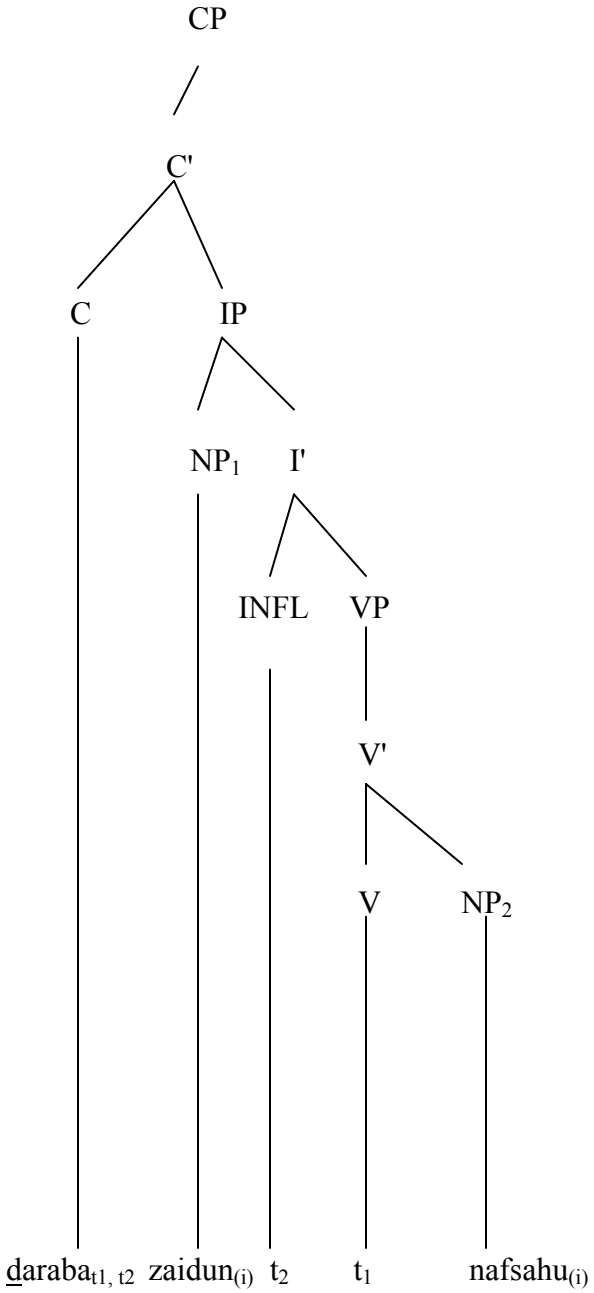


'Zaid hit himself'

In (43b), the NP_1 *zaidun* ‘Zaid’ c-commands the node I’, similarly, the node I’ c-commands NP_1. The node IP that dominates the former dominates the latter without any barriers in between; thus, *zaidun* c-commands whatever under I’. Due to this relation, the anaphor *nafsahu* ‘himself’ is bound by the antecedent *zaidun* under the same governing

category IP and agrees with it in number, person and gender but not case because the binder is in the nominative while the anaphor is in the accusative as the *daraba* ‘hit’ is a transitive verb. The verb *darab* ‘to hit’ moves to INFL position to check tense by the rule called adjunction and becomes *daraba* ‘hit’. In a second cyclic movement, it moves to [C, C’] to initiate the structure at S-structure as well as LF as in (43c):

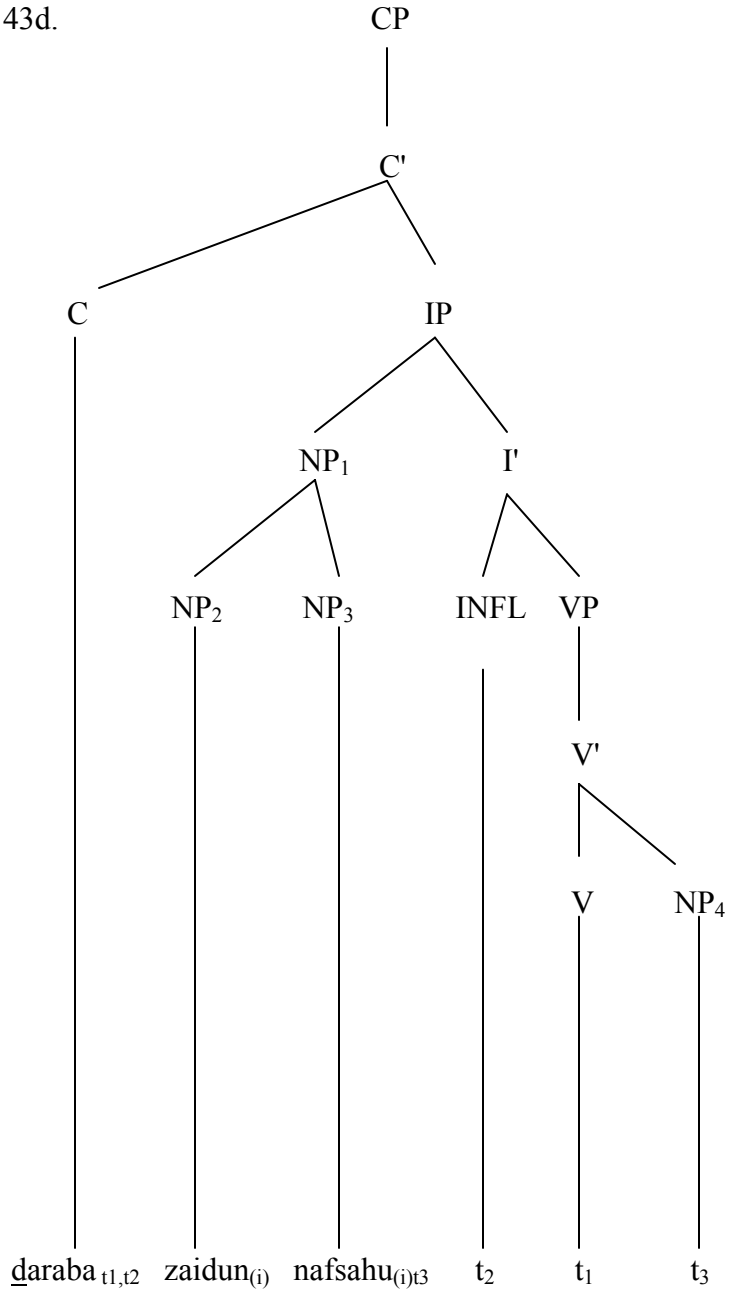
43c.



'Zaid hit himself'

It is evident that this kind of anaphor may occur in the scope of the subject to indicate emphasis without changing any of its features as it is obvious in S-structure (43d):

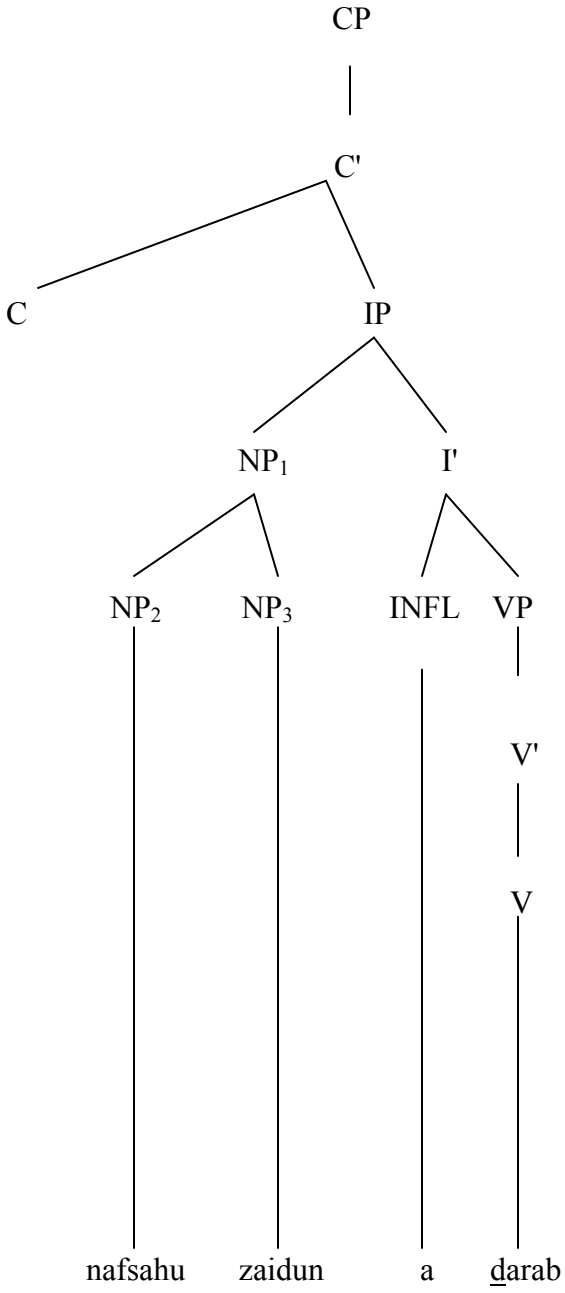
43d.



In (43d), the anaphor *nafsuhu* 'himself' moved next to the antecedent *zaidun* in the same node after the binding relation was established at D-structure and the case assignment at S-structure because it carries the accusative case assigned to it by the verb *darab* to indicate emphasis relation. However, it is a syntactic fact that in binding

relation, this anaphor can not precede its antecedent to indicate this semantic connotation in MSA syntax as is obvious in the ungrammatical LF and S-structure sentence (43e):

43e.



(43e) is ungrammatical for two reasons. (i) The binding relation can not be established between *nafsahu* and *zaidun* in this fashion at LF level and (ii) the case relation also can not be established because the verb *darab* can not govern the object *nafsahu* to assign it the accusative case. This anaphor can move only after checking these two relations in the D-structure as well as S-structure and then moves prior to the verb to

this position for emphasis in MSA syntax. In this case, the verb is to move to [C, C'] to initiate the sentence at LF after all syntactic processes have been achieved.

This kind of relation is also possible in similar structures with the anaphor *ᶜain* 'self'. This is because it indicates the same reference insofar the agreement features are concerned. In other words, the anaphors *ᶜainhu* 'himself, *ᶜainha* 'herself', *ᶜainhuma* 'bothselves/themselves', *ᶜainuhunna* 'themselves/fem' and *?aᶜainhum* 'themselves/masc' have the same binding relation with their antecedents in similar structures in MSA syntax.

In short, the anaphors *nafs* and *ᶜain* 'self' behave in the same fashion insofar as the anaphoric relation as well as c-command relation are concerned. The antecedent binds its anaphor in the same minimal governing category IP without facing any barriers. As per the binding relation at D-structure is concerned, it has been argued that the antecedent must proceed its anaphor even in the emphatic form. In other words, it occurs in the scope of the subject after NP- movement though it carries the accusative case.

As it has been discussed ahead MSA categorizes number into singular, dual and plural as compared to English which categorizes the same feature as singular and plural. This categorization of number indicates that the dual number is treated as plural in English and represented by themselves which makes MSA quite different. Therefore, MSA has the anaphors *kilta* 'female dual' and *kila* 'male dual' to indicate reflexive duality. The specimen (25) in chapter four is repeated here as (44) for the convenience of the analysis to illustrate the binding relation between such anaphors and their antecedents.

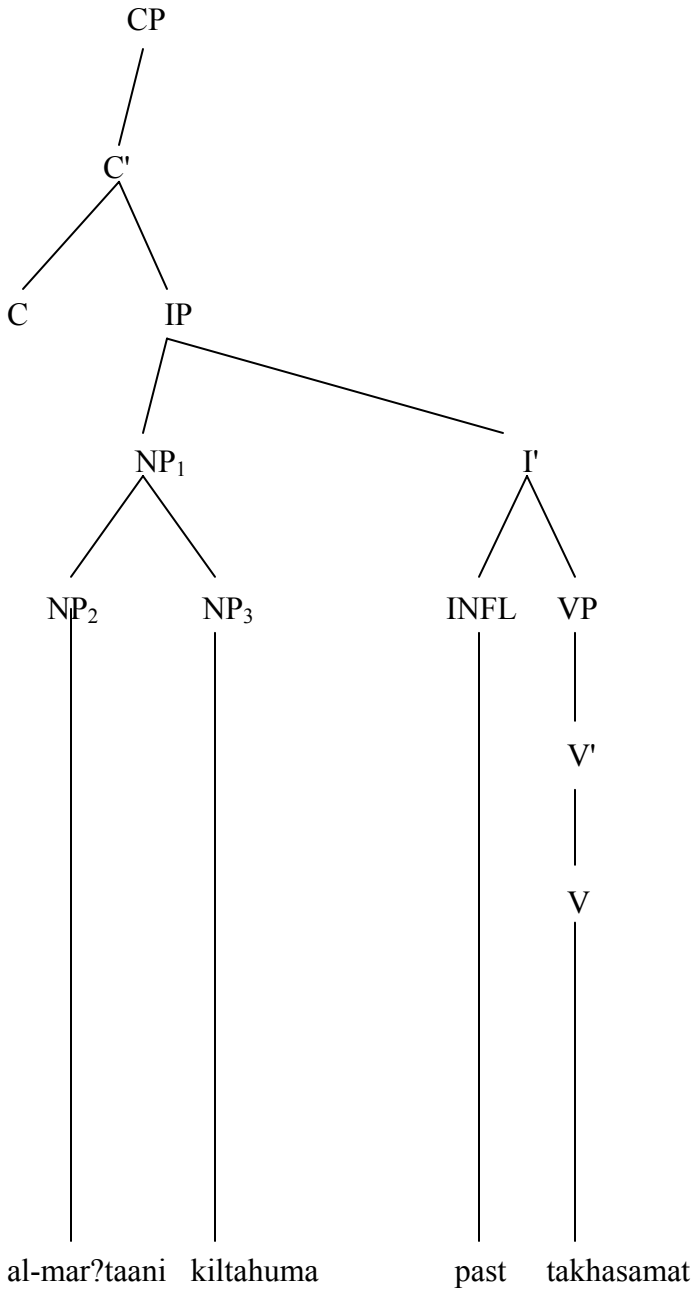
44a. takhasam-	ø	at	al-	mar?-	at-	aani	kil-	taa-		huma
quarrel	past	fem	det	woman	fem	both	self	fem/dual		both

Maghalseh (2007, p.477)

'The two women, themselves, quarreled'

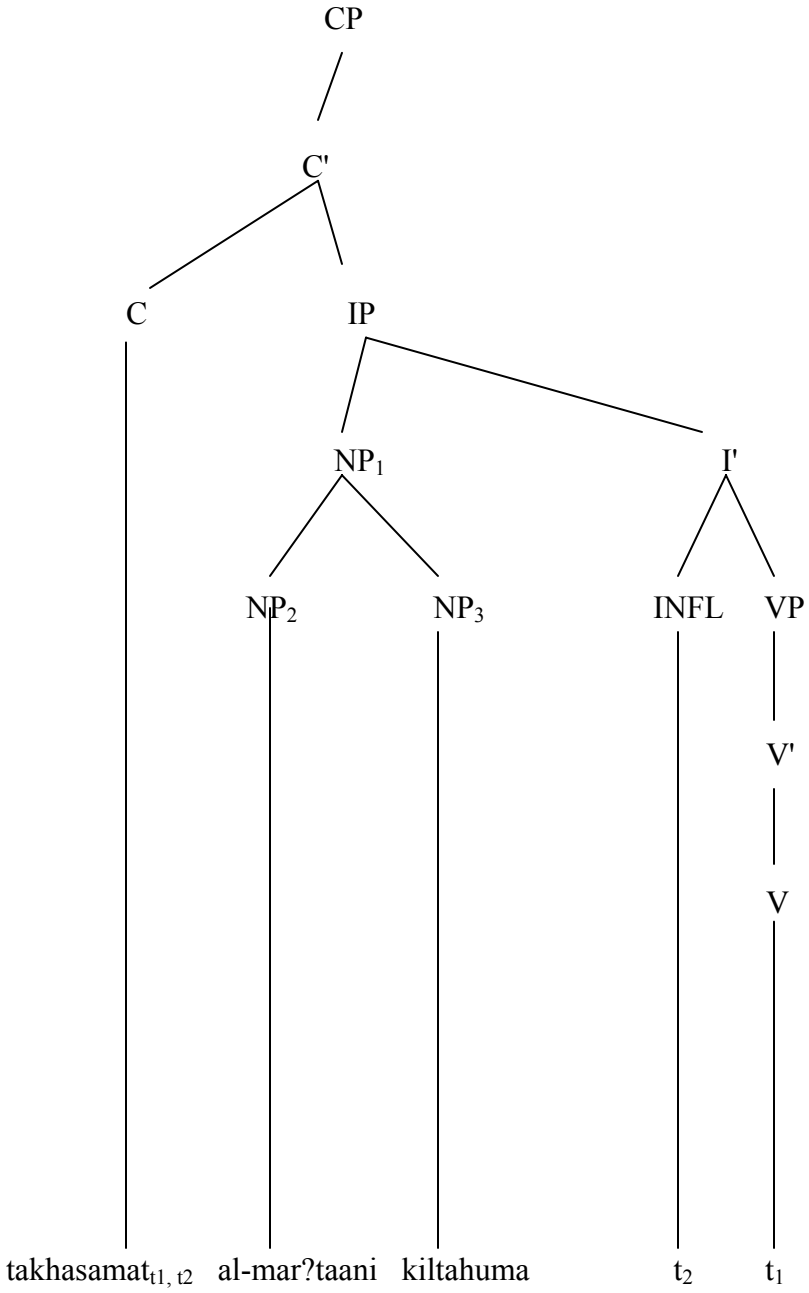
(44b) is the D-structure tree diagram of (44a):

44b.



The anaphor in (44b) *kiltahuma* ‘themselves/female’ is bound by the c-command relation with the antecedent *al-mar?taani* ‘two women’ under the same NP_1 *al-mar?ataani* and the same governing category IP. It agrees with it in number, person, gender and case. The question that arises here is that the anaphor carries the same nominative case as that of the antecedent subject NP *al-mar?ataani*. This is obvious because this NP has got the nominative case in the S-structure by the case assignor INFL. Syntactically, as the anaphor *kiltahuma* occurs in the scope of the subject NP; it carries the same case because the assignment is for NP_1 which hugs NP_2 and NP_3. As MSA is an initial verb at PF, the verb *takhasamat* ‘to quarrel’ moves to INFL node to check zero past tense marker because of the attached personal feminine pronoun [*at*] and then it moves to [C, C’] position to initiate the clause at LF as in (44c):

44c.



It is obvious in (44c) that the V-movement is represented by [t_1 and t_2] to show the relation between the moved elements that is the whole VP.

It is significant to notice that the same relation is established between *kila* 'themselves/masc' and its antecedent if it occurs in the same position. That is to say if the

antecedent occupies the object position, its anaphor follows it immediately and reveals the same features as in (45):

45a. ra?ya- o- tu al- rajulaini kil- o- ai hima.

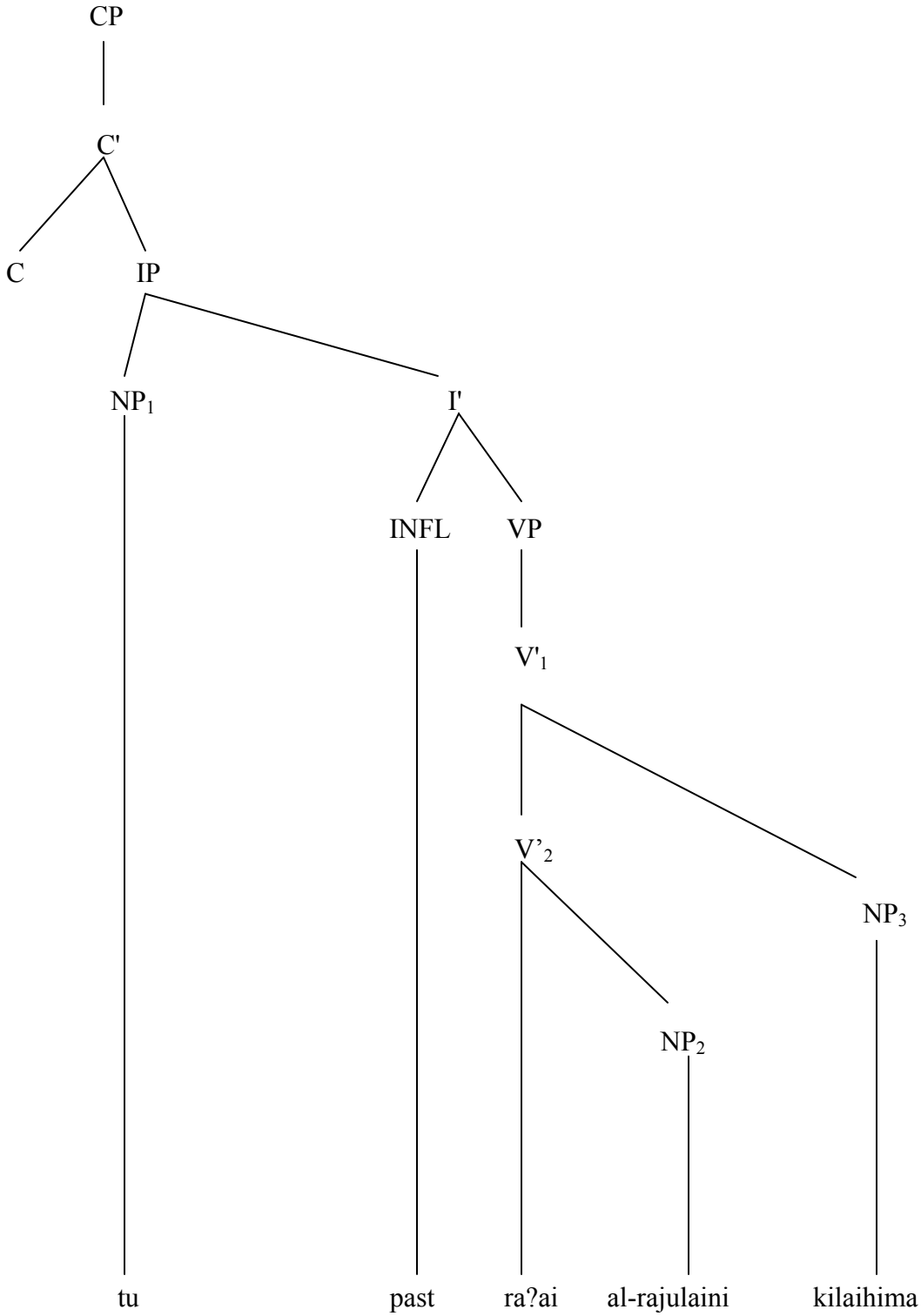
see past I det two men self masc/ dual both

Literally: saw I the two men themselves

'I saw the two men themselves'

(45b) is the D-structure of (45a):

45b.



In (45b), the anaphor *kilaihima* ‘themselves/masc’ is c-commanded by the antecedent *al-rajulaini* ‘the two men’ in the same VP and under the governing category

IP. It is obvious that the antecedent carries the same accusative case assigned to it by the verb *ra?a* 'see' and as the anaphor occurs in its object scope, it has the same case, accordingly. In this kind of anaphora as other kinds of anaphora, the anaphor can not precede its antecedent since it will form an ungrammatical sentence as in (45c):

45c.* ra?ya- o- tu kil- o- ai hima al- rajulaini

see past I self masc/ dual both det two men

Literally: saw I themselves the two men

* 'I saw themselves the two men'

In short, the anaphors *kila* and *kilta* 'themselves' behave in the same manner insofar as the binding relations as well as the case relations are concerned. Both of them may occupy the grammatical function subject and the grammatical function object where they follow each other as per the binder and the bindee relation that is to say the anaphor can not precede its antecedent in any way. It is significant to notice their being next to each other performs normal anaphoric relation but not emphasis as compared to the anaphors *ᶜain* and *nafs* 'self'.

The third category of reflexives is related to the plural feature in MSA represented by the anaphors *jamiiᶜ*, *kul*, *kaffa* and *ᶜamma* 'themselves'. They perform the anaphoric relations with the antecedents as in the specimens as in (46):

46a. qara?- a al- awalaad- u jamiiᶜ- u- hum al- darsa

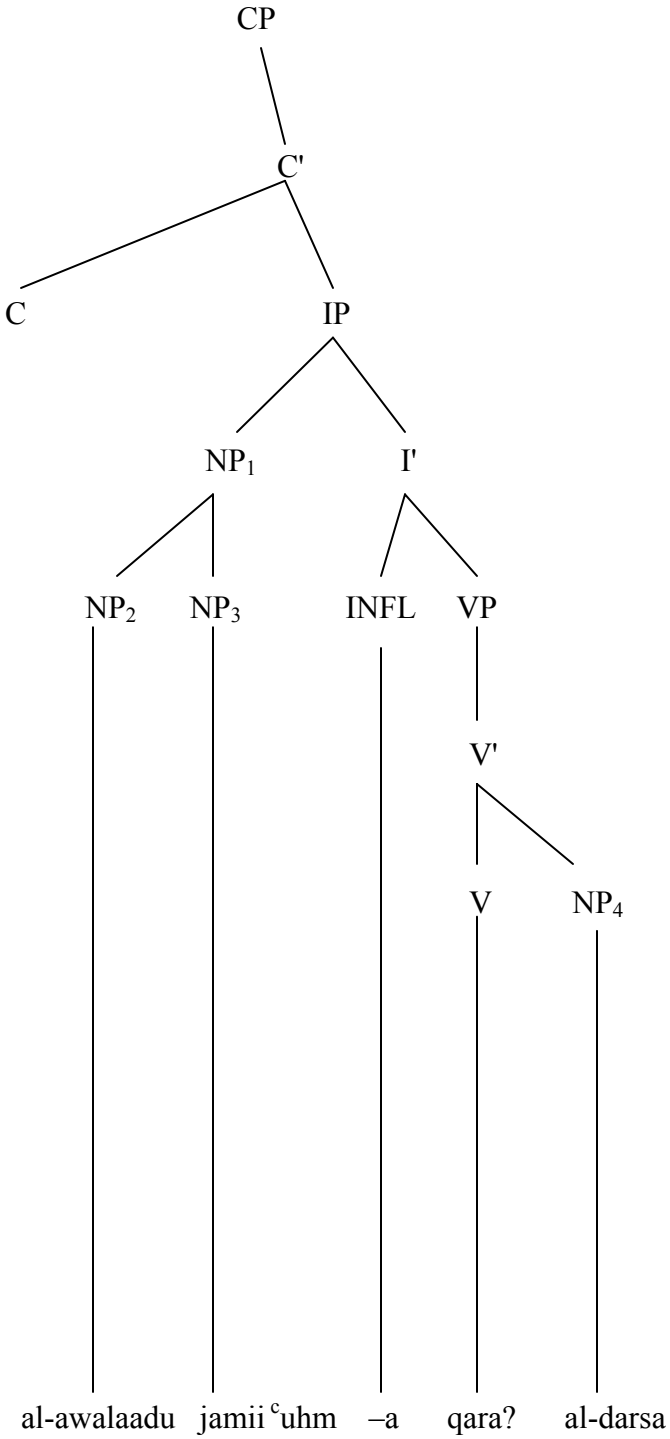
read past det boys nom self nom them det lesson

Literally: read the boys themselves the lessons

'The boys themselves read the lesson'

(46b) is a D-structure tree diagram for (46a)

46b.



In (46b), the antecedent *al-awlaadu* ‘the boys’ c-commands the anaphor *jamii*^{c}*uhum* ‘themslelves’ under the governing category IP. The verb *qara?* ‘to read’ has to move to [INFL, I’] to check tense and becomes *qara?a* ‘read’, and in a second

movement, it moves to [C, C'] to initiate the clause at LF. What is interesting about this type of anaphors is that they behave in the same manner as *kila* and *kilta* insofar as the order of the binder and the bindee are concerned. This is obvious in the agreement of case as the anaphor *jamii^{c}uhum* carries the nominative case by being in the scope of the subject. Likewise, it can not show emphasis as in the ungrammaticality if (46c):

46c. *qara?- a jamiic- u- hum al- awalad- u al- darsa

read past self nom them det boys nom det lesson

Literally: read themselves the boys the lessons

*'They the boys read the lesson'

Not only this phenomenon happens in this position but also whenever the same anaphor occurs with its antecedent in the object position as in (47):

47a. shaahad- o- at hind- u al- rijaal- a jamii^{c}- a- hum

watch past fem Hind nom det men acc self acc them

Literally: watched hind the men themselves

'Hind watched the men themselves'

(47b) the D-structure representation of (47a):

47b. hind- u shahad- o- at al- rijaal- a jamii^{c}- a- hum

Hind nom watch past fem det men acc self acc them

'Hind watched the men themselves'

In (47b), the anaphor *jamii^{c}ham* 'themselves' and the antecedent *al-rijaala* 'the men' happen to be in the object position; therefore, at S-structure, they are assigned the accusative case by the verb *shaahadat* 'watched'. Likewise, the verb moves at S-structure to the initial position of the clause to meet the requirement of MSA word order at LF.

In short, the anaphor *jamii*^{c} '-selves' is restricted to the plural form of the NP whether it occurs in the scope of the subject or the object. It can not move to any place ahead of the antecedent whether for emphasis or any other reason. Thus, it is significant to argue that other members of the category; namely, *kul*, *kaffa* and ^{c}*ama* '-selves' behave in the same manner in all the situations and there is no need to be exemplified in this analysis to avoid any kind of redundancy.

To sum up, so far the researcher has applied the concept of the c-command relation proposed in the third chapter and it is applicable to simple structures in MSA because the binder and the bindee are under the same governing category IP and the relation is syntactically established because this IP dominates both of them. However, this kind of relation is not applicable to other structures in which case the binder can not c-command the bindee in the same governing category. In this case the government relation is the real alternative to account for such structures. This is evident in the sentence (48):

48a. rasam- a zaid- un surat- an li nafs- i- hi

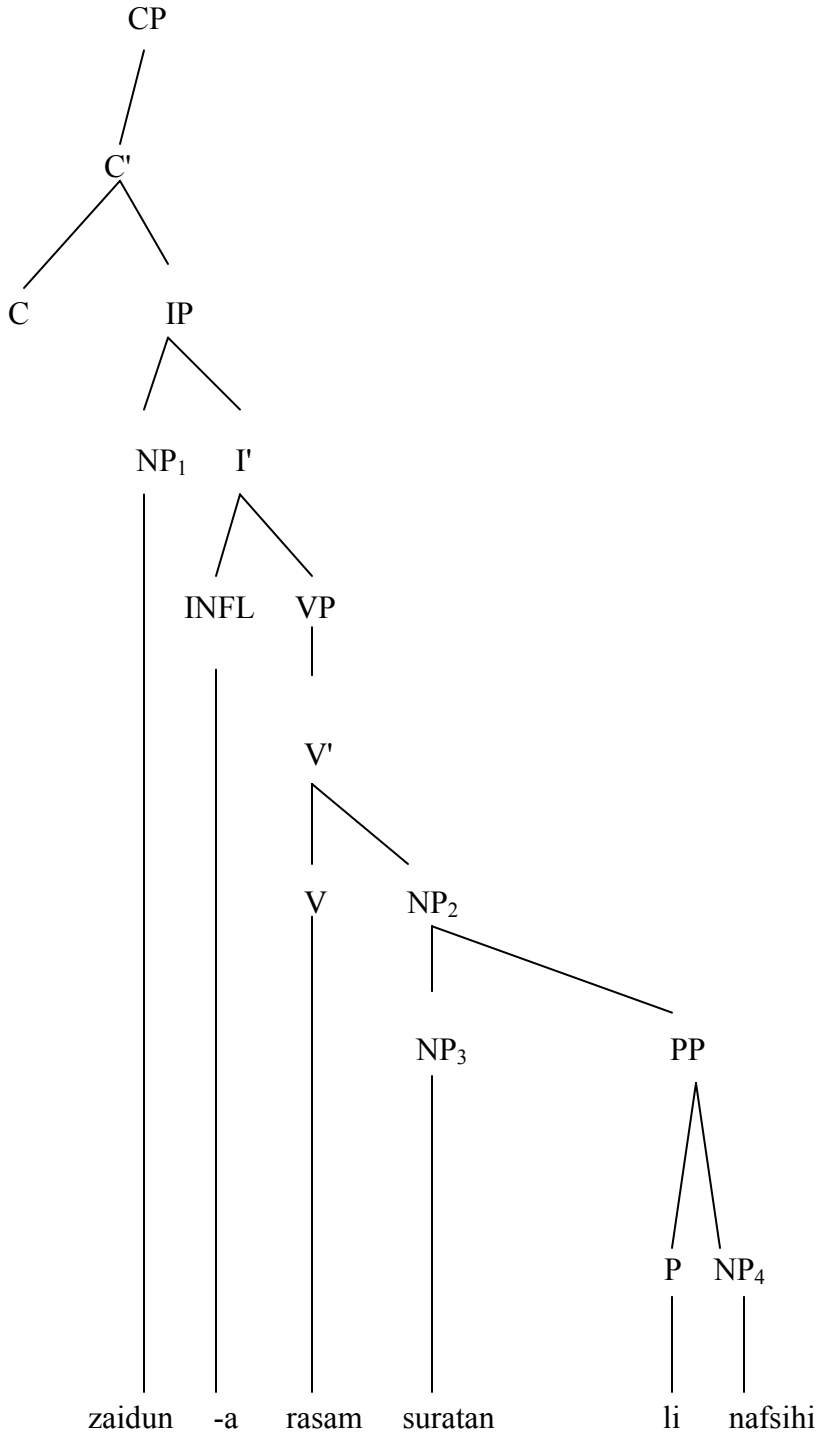
draw past Zaid nom picture acc of self loc him

Literally: drew Zaid a picture of himself

'Zaid drew a picture of himself'

(48b) is a D-structure of (48a):

48b.



In (48b), the c-command between the subject NP_1 *zaidun* 'Zaid' and the anaphor *nafsihi* 'himself' fails because of the maximal projection the barrier PP whose head is the preposition *li* 'of'. Due to this problem, the government relation in MSA syntax is

needed. Thus, in m-command relation, the reflexive *nafsihi* is governed by the preposition *li* and is m-commanded by the verb *rasam* 'draw' in V'. In other words, the antecedent m-commands *zaidun* the whole I' and whatever under it in the VP domain. Thus, *nafsihi* is an anaphor and agrees in number, person, and gender with the antecedent *zaidun* in the governing category IP.

This m-command relation is applicable not only to the anaphor *nafs* and *ᶜain* 'self' but also to the other two categories because they can be segregated by any preposition as in the very weak sentences and considered ungrammatical as (49) and (50):

49a. *rasam- a al- rajul- aani suwar- an li kila- i- hima
draw past det men nom/dual pictures acc for self loc both
Literally: drew the men pictures for themselves
'The men drew pictures for themselves'

(49b) is a D-structure representation of (49a):

49b. *al- rajul- aani rasam- a suwar- an li kila- i- hima
det men nom/dual draw past pictures acc for self loc both
'The men drew pictures for themselves'

50. *rasam- a al- rijaal- u suwar- an li- jamiiᶜ- i- him
draw past det men nom pictures acc for self loc them
Literally: drew the men pictures for themselves
'The men drew pictures for themselves'

(50b) is a D-structure representation of (50a):

50b. *al- rijaal- u rasam- a suwar- an li- jamiiᶜ- i- him
det men nom draw past pictures acc for self loc them

‘The men drew pictures for themselves’

In (49) and (50), the use of the two anaphors *kiliahima* ‘both-selves’ and *jamii^{c}him* ‘themselves’ is very weak and thus the two sentences are wrong. It is evident that in this kind of anaphrization both the antecedent as well as the anaphor if segregated from each other by a preposition will for a very weak structure and can be considered wrong to indicate emphasis.

In short, all the categories of reflexive anaphors in MSA syntax must be m-commanded by its binder in the minimal governing category IP.

4.2.2.2. Reciprocals

The MSA reciprocals *ba^{c}d ba^{c}dan* ‘each other’ and *ba^{c}d li ba^{c}din* ‘one another’ are like reflexive in the sense that both kinds of MSA anaphors are attached to a pronominal suffix which refer to their antecedent and bound by it in the same IP. The first part of the reciprocal is attached to a pronominal suffix that agrees in number, person, and gender with the antecedent (binder); whereas the latter is stripped from any suffixes, and agreement features. It occurs next to the first in order. For a reciprocal anaphor to be bound by an antecedent in simple structure, it must be c-commanded within the governing category IP as in (52):

51a. yara ø al- atfaal- u ba^{c}d- a- hum ba^{c}d- an

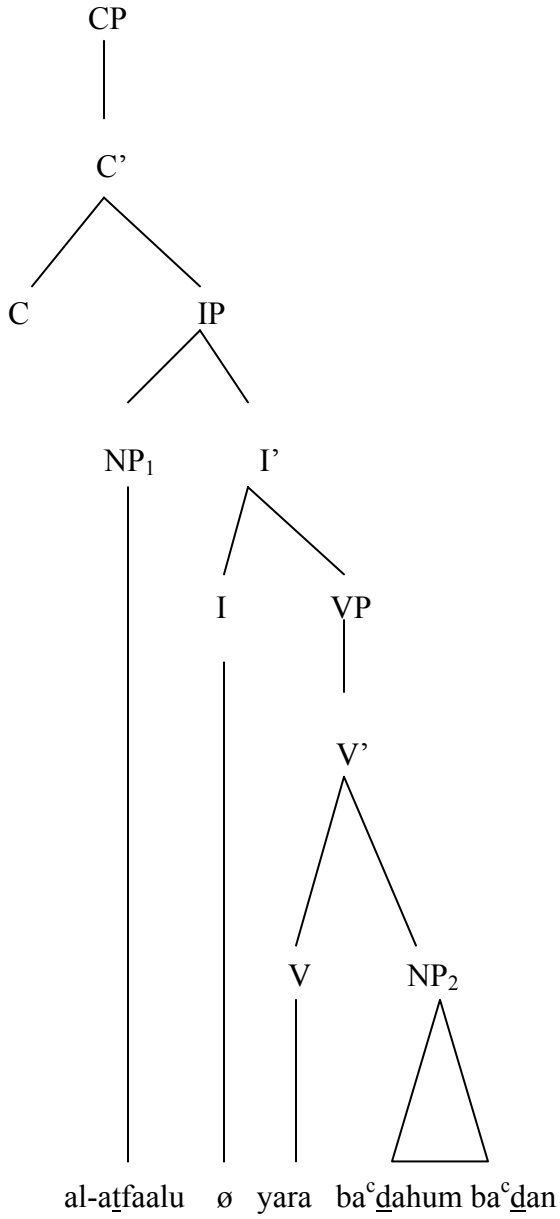
see past det children nom some acc them some acc

Literally: saw the children some them some

‘The children saw each other’

(51b) is a D-structure tree diagram of (51a):

51b.



In (51b), I' c-commands NP_1 and NP_1 c-commands I' under the node IP because this node heads both of them without barriers, thus the antecedent *al-atfaalu* 'the children' c-commands the reciprocal pronouns *baᶜdahum baᶜdan* 'each other' in the same governing category. It is obvious that the reciprocal pronouns agree in number person and gender but not case with the antecedent because the NP is assigned the accusative case by the transitive verb *yara* 'see'. After the binding relation is established, the verb *yara* has

to move to [I, I'] to check the present marker [ø] because the verb ends with the vowel [a] and can not be made tensed. In a cyclic V-movement, the new entity *yara* moves to the position [C, C'] to initiate the sentence at LF and PF.

The other MSA reciprocal anaphor to be discussed is *ba^{c}d li ba^{c}din* 'one another' as in (29) in chapter five which is repeated here as in (52) for the convenience of the analysis.

52a. taqaatal- uu ø ba^{c}d- u hum li - ba^{c}d -in.

fought with they past some nom them for some comm

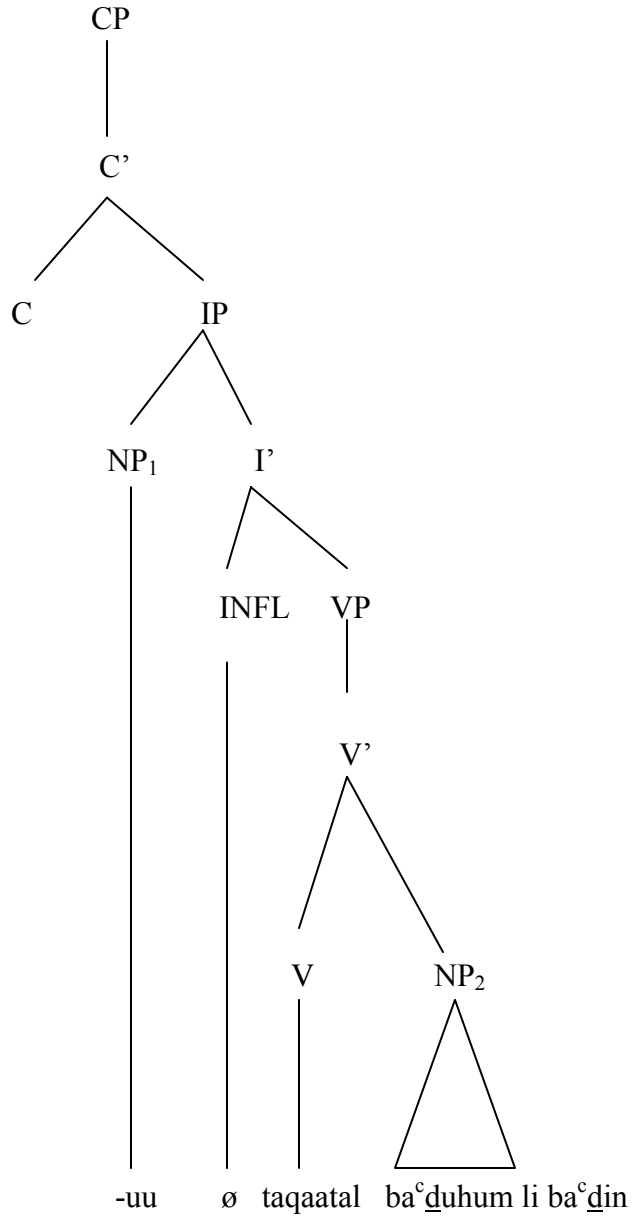
Literally: fought with they some them for some

'They fought with one another'

(Wright, 1984, p.287)

(52b) is a D-structure of (52a):

52b.



In (52b), the antecedent *uu* 'they' c-commands the anaphor *baᶜduhum li baᶜdin* 'one another' under the governing category IP. The first part of the reciprocal agrees with it in number, person and gender. It is obvious that the whole NP_2 is in the commitative case due to the occurrence of the preposition *li* 'with'. The question arises here is that though the first reciprocal pronoun *baᶜduhum* carries the nominative marker [*uu*] that indicated the case confirms also the binding relation with the subject as a plural. Like

wise, the equivalent English counterpart is the PP ‘with each other’ in which case it carries the commitative case because it shows the relation between two plural NPs, one in the subject position and the other in the object of the preposition. As MSA is rich in its morphological realizations, the first part of the reciprocal carries the same marker of the subject to indicate that are one entity in reference.

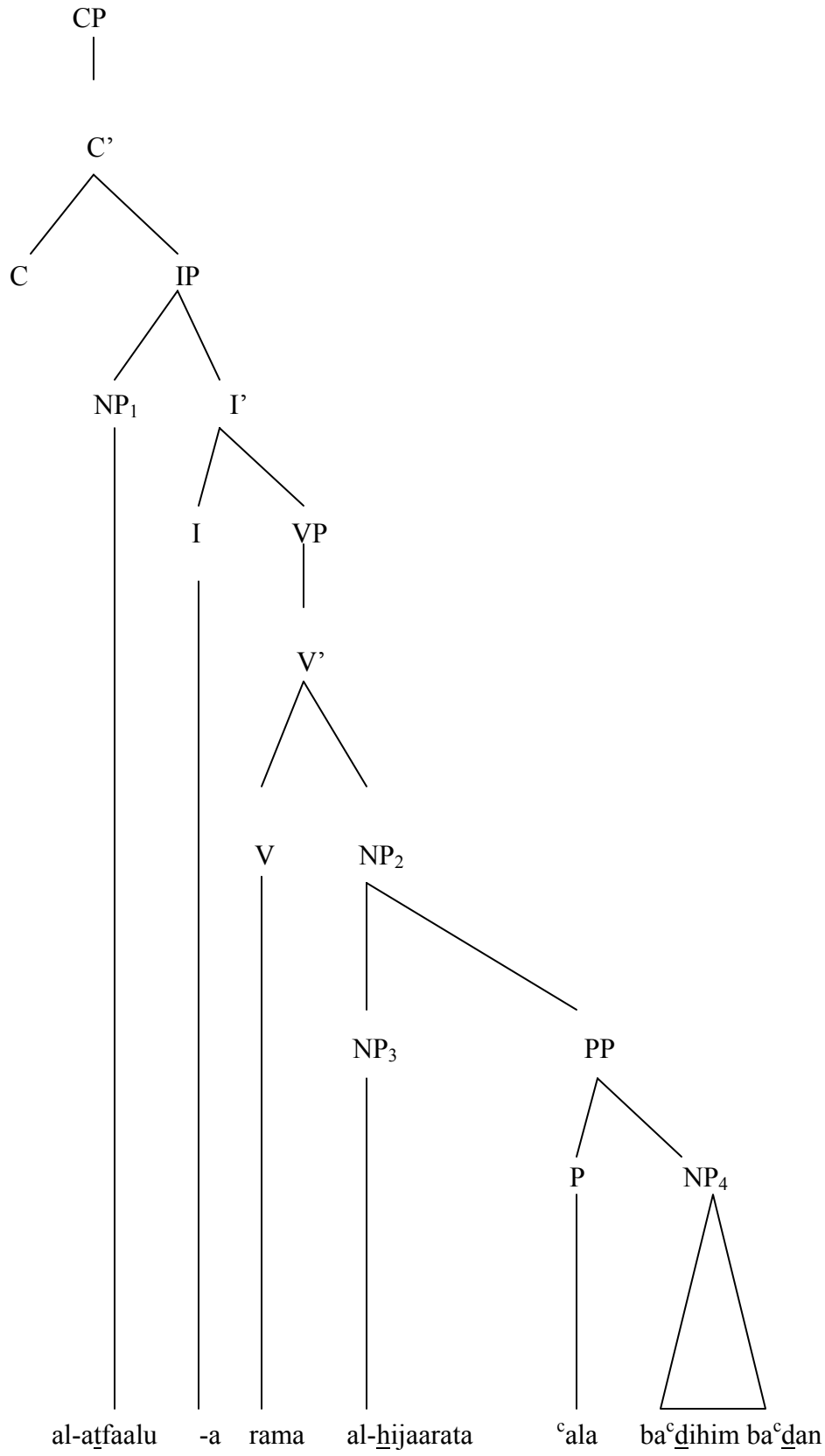
In short, c-command relation is a very helpful mechanism to account for the binding relation between the antecedent and its reciprocal pronoun in such simple structures.

However, the m-command relation can not be applicable to reciprocals in MSA because they can not be preceded by any preposition to make it fit as in (53):

53a. *rama- a al- atfaal- u al -hijaarat- a ᶜala baᶜd- i-
throw past det children nom det rocks acc on some loc
him baᶜd- an
them some acc

(53b) is a D-structure tree diagram of (53a):

53b.


CP
C'
C
IP
NP1
I'
I
VP
V'
V
NP2
NP3
PP
P
NP4
al-atfaalu
-a
rama
al-hijaarata
cala
bacdihim bacdan

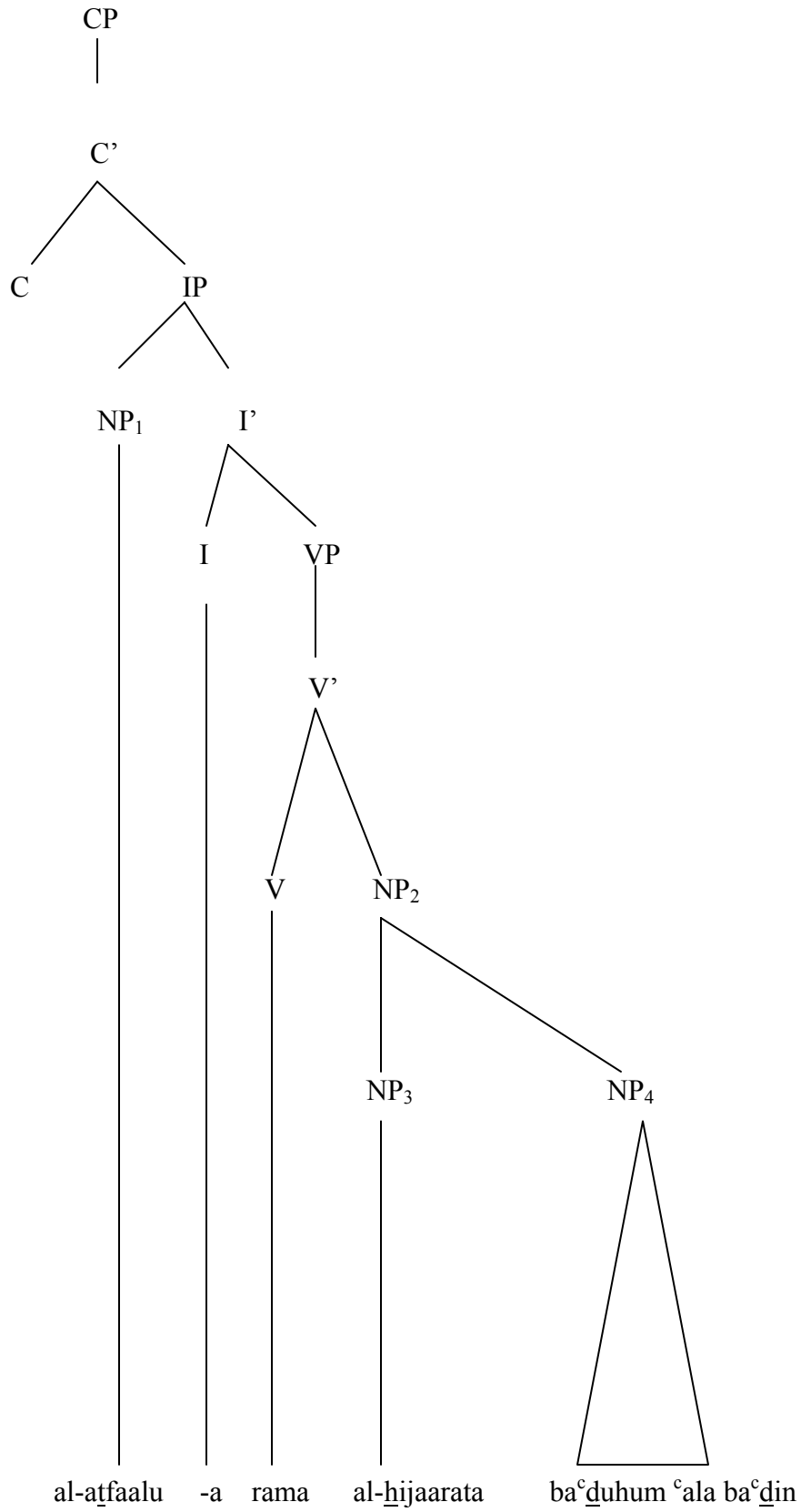
As it is obvious in (53b), the antecedent *al-atfaalu* ‘the children’ does not c-command the anaphor *ba^{c}dihim ba^{c}dan* ‘each other’ because of the barrier PP. For such in convenience in the binding theory in such sentence Chomsky (1981) proposed the m-command relation in the government theory to account for such example as MSA can not accept this kind of structure, the m-command relation is not needed.

According to MSA grammarians the reciprocal anaphors *ba^{c}d ba^{c}dan* must not be preceded by a preposition as a syntactic fact; however, a preposition can occur in the middle of the pronouns as in (54):

54. rama- a al- atfaal- u al -hijaarat- a ba^{c}du- hum
throw past det children nom det rocks acc some them
^{c}ala ba^{c}d- in
on some loc

(54b) is a D-structure tree diagram of (54a):

54b.


CP
C'
C
IP
NP1
I'
I
VP
V'
V
NP2
NP3
NP4
al-atfaalu
-a
rama
al-hijaarata
bacduhum cala bacdin

In (54), the reciprocal *ba^{c}d̲uhum ^{c}ala ba^{c}d̲in* is bound by the antecedent *al-at̲faalu* under the governing category IP. It is obvious that the c-command relation is held because NP_2 does not constitute a barrier as that of a PP or an IP.

In short, the reciprocal pronouns can not be preceded by a preposition in any way in MSA as that of English but the preposition may occurs in between to indicate the commitative and the locative oblique cases.

4.2.3 An Accessible Subject / SUBJECT in MSA Syntax

Chomsky (1981, p.209) argued that the notion of SUBJECT has come to reality to account for the anaphors that occur in (i) the subject of an infinitive, (ii) an NP and (iii) a small clause. This SUBJECT could be represented by the AGR in the finite clause and in an NP if the AGR is not available. The notion SUBJECT accords with the idea that the subject NP is the most prominent element taking the INFL element to be the head of its IP; therefore, the SUBJECT is used. The intuitive idea behind the construction in which anaphors occur is that an anaphor searches for the closest SUBJECT to which it can be linked where the linking involves co-reference for an anaphor. The term SUBJECT is insufficient if the binder is far away from the anaphor, in such case, the notion of the accessible subject is proposed to account for the binding relation that requires the anaphor, a governor and an accessible subject / SUBJECT must be in hand. This confirms the governing relation which can be paraphrased as mentioned in Chomsky (1981, p.220) ‘β is a governing category for α if and only if β is the minimal category containing α, a governor and a SUBJECT accessible to it’.

According to Principle A in the Binding Theory, an anaphor must have an accessible subject or SUBJECT in its minimal category as in (55):

55a. ya^{c}taqid- u zaidun anna suratan li nafs- i- hi sa- takuunu

think pres. Zaid that picture of self loc him will be

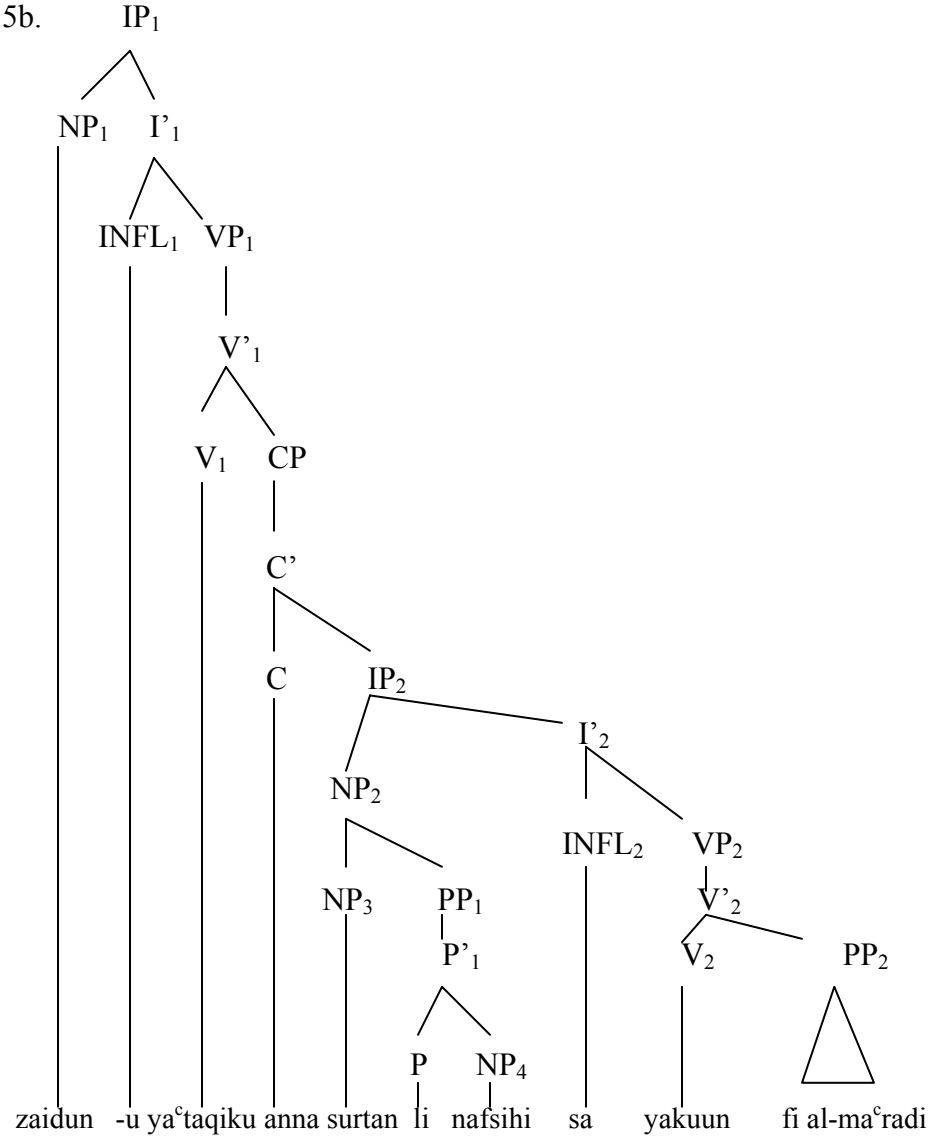
fi al- ma^{c}rad- i

in det exhibition loc

'Zaid thinks that a picture of himself will be in the exhibition'

(55b) is a D-structure representation on (55a):

55b.



(55b) is grammatical because the anaphor is governed by the preposition li 'of' and there is SUBJECT whose inflections are third person, singular and masculine

inflected in the finite verb *saykuunu* 'will be' and there is accessible subject of the matrix sentence *zaidun* 'Zaid'; therefore, the reflexive anaphor *nafsihi* 'himself' is bound in the minimal domain containing it, its governor and an accessible subject/ SUBJECT.

However, if the same anaphor occupies the subject position of a finite clause in the embedded clause, the result will be ungrammatical as in (55c):

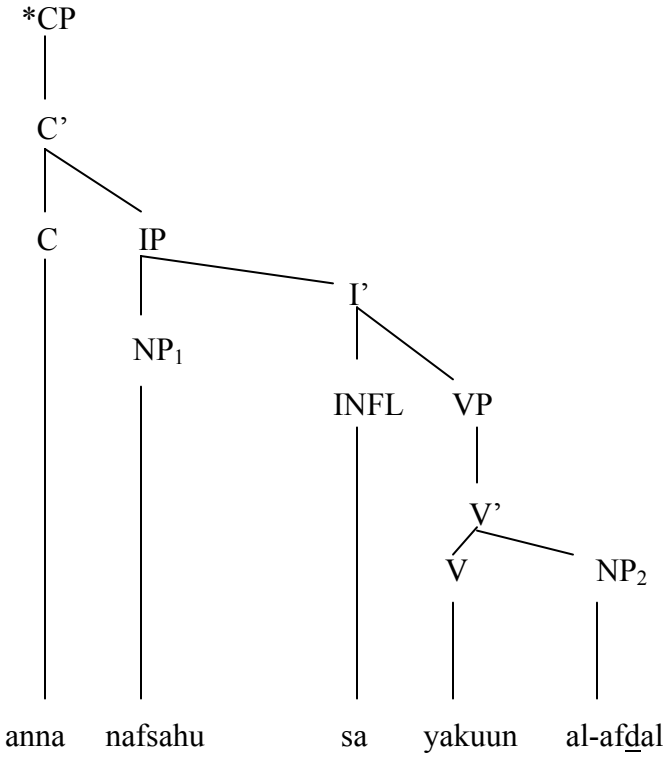
55c. *ya^{c}taqid- u zaidun [$_{cp}$anna nafs- a- hu sa- yakuunu al- af<u>d</u>al]

think pres. Zaid that self acc him will be det best

'Zaid thinks himself will be the best'

(55d) is a D-structure tree diagram of the embedded clause in (55c):

55d.



In (55c), the binding domain for the reflexive *nafsahu* 'himself' can be defined in the notions governor and SUBJECT. The inflection third person, singular and masculine appear in the verb *sayakuunu* 'will be' serves as the SUBJECT for this anaphor; however, being SUBJECT is insufficient to render a grammatical sentence thus an element to be

account as subject/SUBJECT to determine the binding domain of the reflexive must be accessible subject/SUBJECT. A subject/SUBJECT is accessible for anaphor if it is possible to co-index it with this anaphor, thus (55d) is ungrammatical because the antecedent *zaidun* 'Zaid' is neither accessible subject nor SUBJECT because the anaphor *nafsuhu* 'himself' occupies the subject position of the finite clause in which there is SUBJECT represented by the agreement features but without a governor as in (55b). Therefore, binding relation is also established when there is a long distance between the antecedent and its anaphor whenever all government stipulations are met insofar as the binding theory is concerned.

MSA may have structures in which an anaphor occupies the subject position of an embedded clause but this particular clause can be either a small clause or an infinitival clause in such instances the binding relation is established with the help of the notion of the accessible subject and government as follows:

56a. [$_{IP1}$ ^{c}add- a zaidun [$_{IP2}$ nafs- a- hu dhakiyan]]

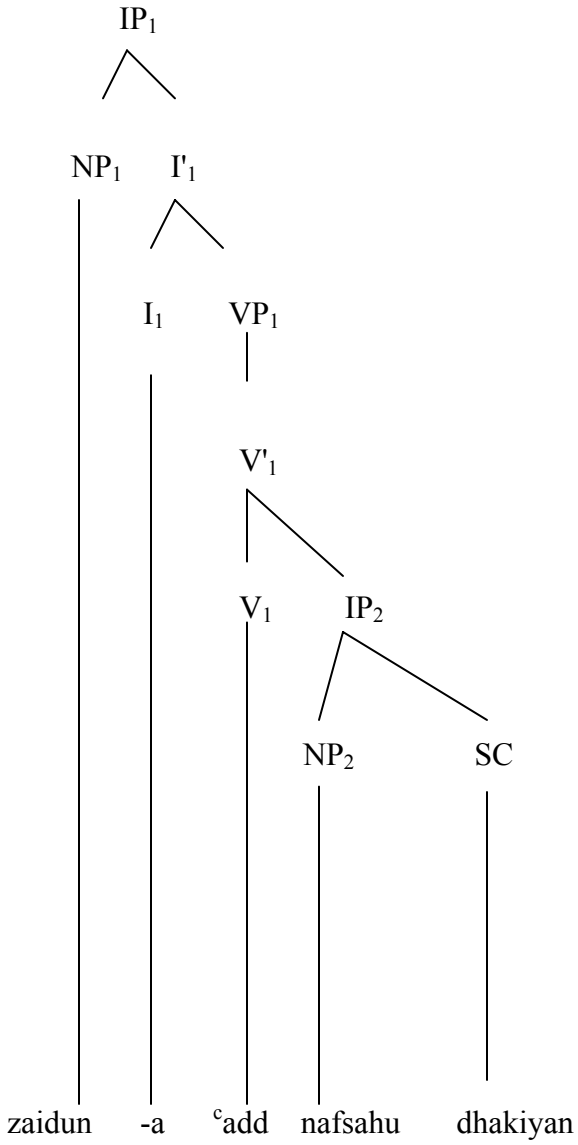
consider past Zaid self acc him clever

Literally: considered Zaid himself clever

'Zaid considered himself clever'

(56b) is a D-structure representation of (56a):

56b.



In (56b), the anaphor *nafsahu* 'himself' is the subject of the embedded small clause *dhakiyan* [clever]. The binding relation is visible in the sense that this anaphor has SUBJECT which is the agreement features of the predicate but it does not have a governor that is a verb or a preposition nor it has accessible subject in the same structure IP_2. In such instance, it looks for these two elements to guarantee the grammaticality of the sentence; therefore, it takes the verb *cadd* 'consider' of the matrix to be its governor from which it takes the accusative case because there is no case assigner available in the

small clause and it takes *zaidun* ‘Zaid’ to be the nearest accessible subject to be a binder. Hence, the anaphor, the governor, the SUBJECT and the accessible subject are within the minimal governing category IP domain.

The researcher suggested other example in which *kilta* ‘both’, *jamii*^{c} ‘all’ and *ba*^{c}*d ba*^{c}*dan* ‘each other’ that occur in structures in which there is an accessible subject in the higher clause to be applied.

57a. ^{c}udd- ø at al- fatat- aani kilta- a- huma dhakiyataini

consider be past fem det. girls nom/dual self acc both clever

‘They both considered themselves clever’

(57b) is a D-structure representation of (57a)

57b. ^{c}udd- ø at al- fatat- aani [$_{sc}$kilta- a- huma

consider be past fem det. girls nom/dual self acc both

dhakiyataani]

clever

‘They both considered themselves clever’

In (57), the anaphor *kiltaahuma* ‘themselves’ is the subject of the embedded clause *kiltaahuma dhakiyataani* ‘themselves clever’. The AGR features represented by dual, third person and feminine of the predicate *dhakiyataani* ‘clever’ is theoretically regarded as the SUBJECT for the anaphor; but, it is insufficient alone. Therefore, it needs the governor verb ^{c}*uddat* ‘considered’ and the accessible subject *al-fatataani* of the higher clause to fulfill the requirement of the Binding and the Government Theory. After the process of binding relation is accomplished and the anaphor is assigned the accusative case by the process of exceptional case marking (ECM), the verb ^{c}*uddat* moves to [INFL,

I’] position to check the covert past tense then it moves to [C,C’] to head the sentence at LF and PF. Another example of the category is the anaphor *jamii*^{c} as in (58):

58a. ^{c}udd- a al- rijaaal- u jamii^{c}- a hum ?adhkiyaa?

consider be past det men nom self acc them clever

‘They considered themselves clever’

(58b) is a D-srtucture representation of (58a)

58b. ^{c}udd- a al- rijaaal- u [$_{sc}$ jamii^{c}- a hum ?adhkiyaa?]

consider be past det men nom self acc them clever

‘They considered themselves clever’

In (58b), the anaphor *jamii*^{c}*hum* ‘themselves’ is the subject of the embedded clause *jamii*^{c}*hum ?adhakiya?* ‘themselves clever’. The AGR features represented by plural, third person and masculine of the predicate *?adhakiya?*‘clever’ is theoretically regarded as the SUBJECT for the anaphor; but, it is insufficient alone. Thus, it needs the governor verb ^{c}*udda* ‘considered’ and the accessible subject *al-rijaalu* ‘the men’ of the higher clause to fulfill the requirement of the binding relation in which the governor the verb ^{c}*udda* and the accessible subject *al-rijaalu* are available in the governing category IP. After the process of binding relation is accomplished at D-structure and the anaphor is assigned the accusative case by the process of exceptional case marking (ECM) at S-structure, the verb ^{c}*udd* moves to [INFL, I’] position to check the covert past tense then it moves to [C,C’] to head the sentence at LF and PF. Sentence (59) is an instance of the reciprocal anaphor *ba*^{c}*dahum ba*^{c}*dan* ‘each other’.

59a. ^{c}add- a al- ?awalaad- u ba^{c}d- a- hum ba^{c}d- an

consider past det boys nom some acc them some acc

?adhkiya?an

clever

'They considered each other clever'

(59b) is a D-structure representation on (59a):

59b. al- ?awalaad- u ᶜadd- a [$_{sc}$ baᶜd- a- hum baᶜd- an

det boys nom consider past some acc them some acc

?adhkiya?an]

clever

'They considered each other clever'

In (59), the reciprocal anaphor *baᶜdahum baᶜd* 'each other' is the subject of the embedded small clause *baᶜdahum baᶜdan ?adhakiya?an* 'each other clever'. The AGR features represented by plural, third person and masculine of the predicate *?adhakiya?* 'clever' is theoretically regarded as the SUBJECT for the anaphor; but, it is insufficient alone. Thus, it needs the governor verb *ᶜadd* 'consider' and the accessible subject *al-?awlaadu* 'the men' of the higher clause to fulfill the requirement of the binding relation in which the governor the verb *ᶜadd* and the accessible subject *al-?awlaadu* are available in the governing category IP. After the process of binding relation is accomplished at D-structure and the anaphor is assigned the accusative case by the process of exceptional case marking (ECM) at S-structure, the verb *ᶜadd* moves to [INFL, I'] position to check the covert past tense then it moves to [C,C'] to head the sentence at LF and PF.

4.2.4 i-within-i Condition

Chomsky provided this condition to avoid circularity of reference. It is an important condition that should be violated in the anaphoric sentence or it will constitute an ungrammatical sentence. (56) is repeated as (60) for the convenience of the analysis.

60a. [$_{IP1}$ ^{c}add- a zaidun$_{(i)}$ [$_{IP2}$ nafs- a- hu$_{(i)}$ dhakiyan]]

consider past Zaid self acc him clever

60b. *[$_{IP1}$ ^{c}add-$_{(i)}$ a zaidun [$_{IP2}$ nafs- a- hu$_{(i)}$ dhakiyan]]

consider past Zaid self acc him clever

Literally: considered Zaid himself clever

'Zaid considered himself clever'

As obvious in (60a) the anaphor refers to the subject NP *zaidun* 'Zaid' by the co-indexation though it is the subject of the matrix clause and not inside the small clause. If the co-indexation of the anaphor was with another phrase say the verb ^{c}*adda* 'considered' in the sentence it will be ungrammatical as in (60b).

To sum up; it was evident that the binding relation between the anaphor and its antecedent is restricted by a number of conditions. For instance, in a simple structure an anaphor and its antecedent are close to each other. The c-command relation is applicable because both the categories are under the same IP and no barriers, namely, PP and IP occur in between. However, if the anaphor is governed by a preposition in the maximal projection PP in the same IP, it constitutes a barrier. In such instances, the anaphor needs a binder but with different relation. The new relation is represented by GOVERMENT. In other words, the anaphor is governed by the preposition under the maximal projection PP and it is also bound by its antecedent in the maximal projection VP; therefore, the

antecedent NP in V'_2 m-commands the whole PP and whatever under it including the anaphor. The government relation is extended to cover instances in which the anaphor is a far distant from its binder because it happens to be either in an NP, infinitival clause or a small clause. In such examples, the notion of m-command relation is extended to cover terms like subject/ SUBJECT, a governor and the governing category. Theoretically, it has been proved that if the anaphor occurs within an NP in which a preposition is the governor; it seeks to accessible subject of the higher clause though the SUBJECT requirement is fulfilled by the AGR features available in the embedded finite clause. Also if it occurs in the subject position of a finite embedded clause though the requirements of SUBJECT is fulfilled but other requirements, namely, the governor and the accessible subject are not, the anaphor cannot occur in this position because the requirements are not fit. It has also been argued that if the anaphor occurs as the subject of a small clause, the internal requirements represented by SUBJECT of the AGR is fulfilled but the external requirements of the binding relation are not. In this case, the anaphor seeks accessible subject and a governor of the higher clause as they are in its minimal governing category IP_1. In this case, the anaphor has to check the accusative case though it occurs in the subject position of the small clause because it is assigned the case by the transitive verb of the matrix sentence as an instance of exceptional case marking (ECM).

All through the analysis, the co-indexation theory is applied because it is very essential in such structures and without which there will be confusion. This makes Principle A of the Binding Theory different from the rest because of different co-indexation.

Chapter Five

Conclusions and Recommendations

5.0. Conclusions

Insofar as the theoretical literature is concerned, it was obvious that the focus of explaining the relation between NPs in a sentence was represented by the Theory of Government and Binding proposed by Chomsky (1981) in which he suggested three conditions to govern such relation. He argued that pronouns are free in minimal governing category because of their free reference. Likewise, R-expressions are also free in their minimal governing category. However, anaphors including reflexives and reciprocals must be bound in their minimal governing categories in which case they are not free in their reference. In other words, they have to be co-indexed with the same co-indexation mark to confirm their relations at D-structure. Thus, the semantic interpretation at LF is far away from confusion because of specification of NPs relation.

Ever since this theory has been posited, linguists tried their best to account for this relation in other languages; thus, the focus of this work is merely on the last condition to test the validity of this theory in MSA syntax.

Insofar as the empirical literature was concerned, there were a number of studies done in MSA syntax to account for such relations from different perspectives, for instance, Thatcher (1911), Wright (1974 and 1984), Abul Rauf (1977), Al Ansari (1987) and Maghalseh (1991 and 2007) explained the kind of relation between the reflexives and reciprocals in terms of *tawkiid* ‘corroboration’. They categorized reflexives as well as reciprocal pronouns into categories that match the person, number, and gender because Arabic is very sensitive to the morphological realizations appeared at the end of the NPs.

However, the same grammarians talked about another type of *tawkiid* called *tawkiid lafẓi* 'verbal corroboration' in which case whether it is a phrase or a clause it has to be repeated by the same manner to indicate this kind of relation.

However, the syntacticians Mustafawi and Mahfoudi (2002) and Kremers (2008) conducted two different studies on Arabic anaphors using the conditions of the Government and Binding Theory of Chomsky (1981). The former conducted an experimental study to see whether Qatari children have the knowledge of the anaphoric relation while demonstrating toys and puppets. They concluded that the sample had a good command of Principle A and B of the Binding Theory; however, they mentioned that pronouns and anaphors have different syntactic restrictions. However, the latter conducted a theoretical study on Standard Arabic, Egyptian Arabic, Moroccan Arabic and Syrian Arabic in which he concluded that reciprocals are governed in their minimal domain.

Here, the researcher agrees with Kremers (2008) and Behren (2007) in the notion of reciprocals in the binding relations.

What made this study new and different from other relevant literature is that it tackled not only reciprocal but also other reflexive pronouns in MSA from the same theoretical point of view. This study was different as it revealed all syntactic issues related to anaphors, namely, case and the grammatical functions they occupied inside or outside the sentence. It was proved that anaphors of the embedded of small clauses are assigned cases as a case of exceptional case marking.

The researcher wrote explicitly, in this chapter, the answers of the questions of the study after getting them analysed in the previous chapter and compared the results with

the hypotheses. The researcher asked five questions in this study. Here are the five questions and their answers.

1. What are anaphors in MSA syntax?

After deep research in this field, the researcher found out that MSA reflexive anaphors are divided in three categories, namely (i) *nafs* and *ᶜain* 'self', (ii) *jamiiᶜ, kul* and *kaffa* 'all' and (iii) *kila* and *kilta* 'both'. The MSA reciprocal anaphors are *baᶜd baᶜdan* 'each other' and *baᶜd li baᶜdin* 'one another'. There must be a pronominal suffix attached to the reflexive pronoun that agrees in number, person, gender and case with the antecedent. However, in reciprocals, the pronominal suffix is attached only to the first part of the NP, and it agrees in number, person and gender with the antecedent. Therefore, MSA is a nominative accusative language and has nominal reflexives in the sense that anaphors are real NPs that can assign cases and get theta roles.

2. Do they have antecedents in the same structures or not?

It is evident from the analysis in chapter four that anaphors are bound in their minimal governing category. This means that the antecedent must be in the same structure in which anaphors occur as in (43), (44), (45), (46) and (47) for reflexives and in sentences (51), (52), and (54) for reciprocals; or it has to seek an antecedent in the higher clause. Therefore, anaphors need antecedents whether in the IP if it is a simple sentence whereas if it is a complex sentence and contains an embedded infinitival clause or a small clause, it seeks the nearest antecedent in the higher clause.

3. Are they governed in their distribution in the sentence? If yes how?

It was proved that for an anaphor to be governed, it succumbed to two types of relations, namely, (i) c-command and (ii) the government relations. To account for such

relations the researcher checked two perspectives. She firstly dealt with MSA as a verb initial language (VSO), in which case, though the object is put after the subject in order at LF but in fact it was supposed to be projected from the VP at the D-structure because it is governed and projected by the transitive verb. In this situation, the c-command relation is applied and then the NP has to move to the right of the subject as in (40a) and (40b). However, if the object NP is posited in the same place as it is in the logical form, the anaphoric relation will be applicable because the governor and the governed are under the same IP but the anaphor will not have a case; therefore, it renders ungrammatical sentence as in (40c). Also, if the scrambling rule is not applied as to (40a), the resulting sentence will be ungrammatical as in (40d). Due to these particular problems, the researcher followed another perspective which said that MSA is SVO at the D-structure level but VSO at the LF. In this perspective, the governor and the governed are under the VP as in (41) in which case anaphoric relations as well as case are established and the subject also got the nominative case by the case assignor INFL. After all these syntactic representations were applied, the verb moves from [V, VP] to [INFL, I'] to check tense and then in a cyclic movement to [C, C'] to initiate the sentence at LF; therefore, there were two alternatives before the researcher to select. The first alternative involves NP-movement in the right direction for more than one entity which could be NP or PP that depends on the structure of the VP whereas the second alternative involves V-movement to the left direction leaving the other constituents undisturbed. As the second alternative a number of advantages over the first, it had been followed by the researcher. This approach was basically proposed by Koopman (1984) applied on Vata and Gbadi languages and then followed by Jalabneh (1992) in Arabic syntax. Therefore, anaphors

are governed by a governor whether in the IP or outside it. Governors are [V, P, and AGR].

4. Does MSA *have an accessible subject/SUBJECT in its structure?*

It was proved that MSA has a long distant anaphor in the sense that the anaphor and the antecedent were not within the same IP. In this case, it occurred either in an NP, or subject of a small clause. For instance, in (55a) in which an NP occurs in the embedded finite clause and had an anaphor, the anaphor is governed by the preposition *li* 'of' at the same time there is a SUBJECT which is the AGR of the finite verb and the accessible subject of the matrix sentence which are all in the governing category IP_1. If it occurred as a subject of a small clause, the internal requirements represented by SUBJECT of the AGR were fulfilled but the external requirements of the binding relation were not. In this case, the anaphor sought an accessible subject and a governor of the higher clauses as they were in its minimal governing category IP_1. In such instance, the anaphor had to check the accusative case though it occurred in the subject position of the small clause because it was assigned the case by the transitive verb of the matrix sentence as an instance of exceptional case marker (ECM). Therefore, MSA is like English in the sense that it has a long distance anaphor or what is called the accessible subject.

5. Do anaphors precede their antecedents?

It had been proved that the anaphors cannot precede by any way their antecedents in all matters or the sentence as ungrammatical as in (43e) for reflexive. However, it may land in the position of [C, C'] as a case of topiclization as in (16c) in chapter four. Therefore, anaphors can not precede their antecedents at D-structure in which case the binding relation was established.

To sum up, this work tried to test the validity of the binding theory in MSA syntax and researcher found that it was the case. The researcher looked at various types of NP anaphors including reflexives and reciprocals in MSA syntax. The study revealed that as MSA is a nominative/accusative language such anaphors constituted separate NPs. They needed antecedents with which they agreed in number, person, gender and sometimes in case. The binding relation established between two entities at the level of D-structure removed the confusion of reference at the LF. Another area that this work had covered involved the long distance anaphor. In such situation, the anaphor was not only assigned a case in an exceptional case marking manner but also sought for an accessible subject that is the subject of the matrix verb. Both the governor and the governed that is the anaphor are within the governing category IP of the matrix. On the basis of the analysis of MSA NPs, particularly, anaphors, this study made it clear that the theory of binding is a universal module and yielded very precise results; however, it was a useful exercise because the researcher could say with some certainty that all nominal accusative languages behave somehow the same manner insofar the anaphoric relations were concerned.

5.1. Recommendations

The researcher recommends other linguists to conduct similar studies in syntax on other languages. For those who are interested in MSA syntax, the researcher advices them to study other theories and sub-theories of Government and Binding Theory of Chomsky (1981 and 1986) to enrich MSA with recent studies and analyze from different perspectives. She also recommends other scholars to conduct similar syntactic study on

Colloquial Arabic and test if it is similar or different from the MSA in the anaphoric relations and structures

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Appendix A

Chart of Arabic Segments

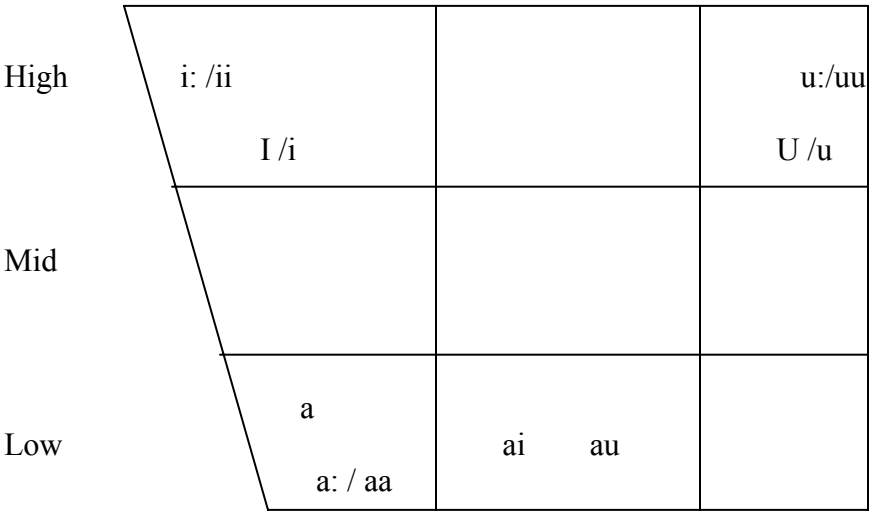
Arabic Consonants

Arabic	Transliteration	Phonetic	Arabic	Transliteration	Phonetic
أ	ʔ	ʔ	ض	d̲	đ
ب	b	b	ط	t̲	ṭ
ت	t	t	ظ	z̲	ð̲
ث	th	Θ	ع	ᶜI	I
ج	j	dʒ	غ	gh	ɣ
ح	h̲	ħ	ف	f	f
خ	kh	x	ق	q	q
د	d	d	ك	k	k
ذ	dh	ð	ل	l	l
ر	r	r	م	m	m
ز	z	z	ن	n	n
س	s	s	ه	h	h
ش	sh	*f*	و	w	w
ص	s̲	χ	ي	y	y

Jalabneh (1992, p.iii)

The researcher used the transliteration forms only in this study

Arabic Vowels and Diphthongs



Shehdeh et al (2006, p.47)

Examples to illustrate the vowels and the diphthongs in MSA used in this work:

Tense Vowels:

Symbol	**Example**
1. ii	/tiin/ 'fig'
2. aa	/maal/ 'money'
3. uu	/suud/ 'black'

Lax Vowels:

Symbol	**Example**
1. i	/min/ 'from
2. a	/lan/ 'not'
3. u	/ᶜud/ 'come back'

Diphthongs:

Symbol	**Example**	
1. ai	/ᶜain/	‘eye’
2. au	/lau/	‘if’

Appendix B

Abrreviations

2^{nd} :	Second
3^{rd}:	Third
Adj:	Adjective
Adv:	Adverb
acc.:	Accusative case
AP:	Adjectival Phrase
AGR	Agreement
C’	Complementizer Phrase bar
comm.:	Commitative case
CP:	Complementizer Phrase
det:	Determiner
D-structure:	Deep structure
ECM:	Exceptional Case Marking
fem.:	Feminine
I’:	Infinitival Phrase bar
INFL:	Inflection
inst.:	Instrumental case
IP:	Infinitival Phrase
LF:	Logical Form
loc.:	Locative case

masc.:	Masculine
MSA:	Modern Standard Arabic
N:	Noun
N-movement:	Noun Phrase Movement
nom.:	Nominative case
NP:	Noun Phrase
P:	Preposition
P':	Preposition Phrase bar
past:	Past tense
PF:	Phonetic Form
pres.:	Present tense
pl.:	Plural
PP:	Prepositional Phrase
S-structure:	Surface Structure
sg.:	Singular
Spec:	Specifier
SVO:	Subject-Verb-Object
V:	Verb
V':	Verb Phrase bar
V-movement:	Verb Phrase Movement
VP:	Verbal Phrase
VSO:	Verb-Subject-Object

Appendix C

Panel of Experts Letter

Dear Professors:

My name is Randa Tawfiq Daoud. I am a graduate student at Middle East University for Graduate Studies. I am writing a thesis to acquire my M.A degree in English Language and Literature. My supervisor, Dr. Atef Jalabneh, has recommended your name to serve as a member of the panel of jurors for the sentences that I am analyzing syntactically in my study.

The Title of my study is:

Anaphors in Modern Standard Arabic Syntax with Reference to Modern Syntax Theories

I am investigating the Arabic reflexives and reciprocals and analyzing their structures. I have enclosed sentences that include reflexives and reciprocals. Would you please review the enclosed sentences hoping to provide me with your comments, notes and recommendations on the adequacy of the content and its suitability to judge what is intended to be analyzed?

I would like to thank you for your assistance.

Sincerely Yours,

Randa Tawfiq

Please comment on the correctness and grammaticality of the use of reflexives and reciprocals in the following sentences:

Please note that the symbol (*) indicates intentionally ungrammatical sentence which I used to prove the ungrammaticality of the use of the reflexive or the reciprocal. In addition, the use of the symbol (/) indicates the word ‘or’, i.e. using each word separately in the same sentence is grammatical or ungrammatical depending on the sentences. I have also enclosed the chart of transliterating letters I used.

1. ra?ai- ø - tu nafs- i / ᶜaini fi al- mir?aat- i.
see past I self I in det mirror inst.

‘I saw myself in the mirror'

2. *ra?ai- ø - tu nafs- ha / ᶜainha fi al- mir?aat- i.
see past I self she in det mirror inst.

‘I saw herself in the mirror'

3. nafsi / ᶜaini ra?ai- ø - tu fi al- mir?aat- i.
myself see past I in det mirror inst

‘Myself, saw I in the mirror’

4.*nafsi / ᶜaini ra?ai- ø - tu fi al- mir?aat- i.
myself see past I in det mirror inst

‘I saw myself in the mirror'

5. akal- ø- at hind- un al- ᶜinab- a nafs- a- hu /ᶜainahu
eat past fem Hind nom det grapes acc self acc it

‘Hind ate grapes itself’

6. *akal- ø- at hind- un al- ᶜinab- a nafs- u- hu /ᶜainahu
eat past fem Hind nom det grapes acc self nom it

‘Hind ate grapes itself’

7. nadaj- a al- ᶜinab- u nafs- u- hu / ᶜainuhu

grow past det grapes nom self nom it

‘The grapes itself grew’

8. mashai- ø- tu maᶜ al- junuud- i anafus- i- him / ᶜainihim

walk past I with det soldiers comm. self comm. them

Literally: walked I with the soldiers themselves

‘I walked with the soldiers themselves’

9. ra?ai- ø tu al- awlaad- a kul- a-

see past I det boys acc self acc

hum / jamiiᶜahum / kaaffatahum/ ᶜaamatahum

them

‘I saw the boys themselves’

10. qabal- ø- tu kulla/ jamiiᶜa / kaaffata / ᶜaamata al- awlaad- i

meet past I all det boys gen

‘I met all the boys’

11.*qabal- ø- tu kull- a- hum/ jamiiᶜahum / kaaffatahum / ᶜaamatahum

meet past I self acc them

al- awlaad- i

det boys gen

*‘I met themselves the boys’

12. *kil- aa- huma qadim- ø- aa

self masc.dual both come past dual

*‘Themselves the two men came’

13. kil- ta- huma qadim- ø- at aa

dual fem both come past fem dual

‘Both of women came’

14. nafs- u al- rajul- i qadim- a

same nom det man gen come past

‘The same man came’

15. * taqaatalu ø ba^{c}d- i hum li - ba^{c}d -in.

fought with they past some comm them for some comm.

‘They fought with one another other’

16. yuhib- u- ø ba^{c}d- u- hum ba^{c}d- an

love- pres. they some nom them some acc

‘They love each other’

17.* yuhib- u- ø ba^{c}d- a- hum ba^{c}d- an

love- pres. they some acc them some acc

‘They love each other’

18. inqasam -a al- naashiru -una ba^{c}d- u- hum ^{c}alaa ba^{c}d- in

divided past det- publishers nom some- nom- them on some- loc

‘The publishers are divided upon each other’

19. *yulaaqii ba^{c}d- u- hum al- ba^{c}d- a

meet, -they some- nom- them det - some- acc

'They meet each other’

20. *a<u>h</u>ab- a zaid- un wa hind- un ba^{c}<u>d</u>- u- hum al- ba^{c}<u>d</u>- a

love past Zaid nom and Hind nom some nom them det some acc

‘Zaid and Hind love each other’

21. yajib- u ?an nastami^{c}a ba^{c}<u>d</u>- u- naa ilaa ba^{c}<u>d</u>- in

must pres. that listen- we some- nom- us to some- acc

'We must listen to each other'

22. ta- talaa^{c}abuuna ba^{c}<u>d</u>- u- kum bi ba^{c}<u>d</u>- in

2nd,pl manipulate-you, pl some nom you, pl with some comm.

‘You manipulate each other’

23. a<u>h</u>abb- a zaid- un nafs- a- hu

love past Zaid nom self acc him

‘Zaid loved himself’

24. *a<u>h</u>abb- a zaid- un nafs- ø- hu

love past Zaid nom self acc him

‘Zaid loved himself’

25. *a<u>h</u>abb- a nafs- a- hu zaid- un

love past self acc him Zaid nom

*‘Zaid himself loved’

26. zaid- un a<u>h</u>abb- a nafs- a- hu

Zaid nom love past self acc him

‘Zaid loved himself’

27. <u>d</u>arab- a zaid- un nafsahu

hit past zaid nom himself

‘Zaid hit himslef’

28. ra?ya- o- tu al- rajulaini kil- o- ai hima.
see past I det two men self masc/ dual both
‘I saw the two men themselves’

29.*ra?ya- o- tu kil- o- ai hima al- rajulaini
see past I self masc/ dual both det two men
*‘I saw themselves the two men’

30. qara?- a al- awalad- u jamii^{c}- u- hum al- darsa
read past det boys nom self nom them det lesson
‘The boys themselves read the lesson’

31. *qara?- a jamii^{c}- u- hum al- awalad- u al- darsa
read past self nom them det boys nom det lesson
*‘They the boys read the lesson’

32. shahad- o- at hind- u al- rijal- a jamii^{c}- a- hum
watch past fem Hind nom det men acc self acc them
‘Hind watched the men themselves’

33. hind- u shaahad- o- at al- rijal- a jamii^{c}- a- hum
Hind nom watch past fem det men acc self acc them
‘Hind watched the men themselves’

34. rasam- a zaid- un surat- an li nafs- i- hi
draw past Zaid nom picture acc of self loc him
‘Zaid drew a picture of himself’

35. *rasam- a al- rajul- aani suwar- an li kila- i- hima

draw past det men nom/dual pictures acc for self loc both

'The men drew pictures for themselves'

36. al- rajul- aani rasam- a suwar- an li kila- i- hima

det men nom/dual draw past pictures acc for self loc both

'The men drew pictures for themselves'

37. *rasam- a al- rijaal- u suwar- an li- jamii^{c}- i- him

draw past det men nom pictures acc for self loc them

'The men drew pictures for themselves'

38. al- rijaal- u rasam- a suwar- an li- jamii^{c}- i- him

det men nom draw past pictures acc for self loc them

'The men drew pictures for themselves'

39. yara ø al- a<u>t</u>faal- u ba^{c}<u>d</u>- a- hum ba^{c}<u>d</u>- an

see past det children nom some acc them some acc

'The children saw each other'

40. *rama- a al- a<u>t</u>faal- u al -hijaarat- a ^{c}ala ba^{c}<u>d</u>- i-

throw past det children nom det rocks acc on some loc

him ba^{c}<u>d</u>- an

them some acc

'The children threw stones on each other'

41. rama- a al- a<u>t</u>faal- u al -<u>h</u>ijaarat- a ba^{c}<u>d</u>u- hum

throw past det children nom det rocks acc some them

^{c}ala ba^{c}<u>d</u>- in

on some loc

‘The children threw stones on each other’

42. ya^{c}taqid- u zaidun anna suratan li nafs- i- hi sa- takuunu
think pres. Zaid that picture of self loc him will be
fi al- macrad- i
in det exhibition loc

‘Zaid thinks that a picture of himself will be in the exhibition’

43. *ya^{c}taqid- u zaidun anna nafs- a- hu sa- yakuunu al- afdal
think pres. Zaid that self loc him will be det best

‘Zaid thinks himself will be the best’

44. [$_{IP1}$ ^{c}add- a zaidun [$_{IP2}$ nafs- a- hu dhakiyan]]
consider past Zaid self acc him clever

‘Zaid considered himself clever’

45. ^{c}add- o at al- fatat- aani kilta- a- huma dhakiyataani
consider past fem det. girls nom/dual self acc both clever

‘They both considered themselves clever’

46. ^{c}add- a al- rijaaal- u jamii^{c}- a hum ?adhkiyaa?
consider past det men nom self acc them clever

‘They considered themselves clever’

47. ^{c}add- a al- ?awalaad- u ba^{c}d- a- hum ba^{c}d- an
consider past det boys nom some acc them some acc
?adhkiya?an
clever

‘They considered each other clever’

48. ᶜadd- a zaidun nafs- a- hu dhakiyan

consider past Zaid self acc him clever

49. *ᶜadd- a zaidun nafs- a- hu dhakiya

consider past Zaid self acc him clever

‘Zaid considered himself clever’

Thank you

Appendix D

List of Members of Panel of Expert

1. Associate Professor Odah Odah specialized in Arabic syntax and teaches in the Middle East University for Graduate Studies

2. Assistant Prefessor Manal Al-Najjar specialized in Arabic and teaches in the Middle East University for Graduate studies.