

ON DOUBLE OBJECT CONSTRUCTIONS IN ARABIC

Dr. Mahmoud Kanakri*
Dr. Mohammed Al-Shorafat**

□ ABSTRACT □

The concern of this paper is two-fold. First, it intends to show that Arabic 'double' object constructions display some asymmetrical relations obtaining with 'direct' and 'indirect' objects in English. Second, it attempts to demonstrate that the Arabic data of 'double object constructions' would reinforce the analysis proposed by Iwakura. Working within the Government and Binding framework, Iwakura assumes a preposition that has a zero manifestation before the direct object. At present we do not have clear evidence in Arabic which would support this hypothetical line. On a semantic level, the indirect object seems to act as an 'agent' and the direct object as patient, as illustrated by:

I gave the visitor a flower

It is the visitor who takes the flower and it is the flower which is taken.

* Mu'ta University, Jordan.

** Yarmouk University, Jordan.

*الدكتور محمود كناكري

**الدكتور محمد الشريقات

□ الملخص □

قدم العديد من الباحثين مجموعة من الأوراق البحثية محاولين تفسير السلوك اللامتناسق لكل من المفعول به الأول والمفعول به الثاني في علاقتهما مع (C. command) وعملية حركة بعض التراكيب (movement) في اللغة الإنكليزية. فبعد مراجعة العديد من الحلول المطروحة لمعالجة مثل هذه العلاقة وجد كاتباً هذا البحث أن التحليل اللغوي الذي يقدمه إيوكورا (Iwakura 1987) هو الأنسب والأفضل.

لهذه الورقة البحثية جانبان:

- 1- الجانب الأول يبين أن التراكيب العربية تتضمن مفعولين تظهر نفس العلاقة النحوية اللامتناسقة التي تظهرها نفس التراكيب في اللغة الإنكليزية.
- 2- الجانب الثاني يظهر أن تحليل التراكيب العربية المتضمنة لمفعولين يقدم تأكيداً ودعمًا لصحة التحليل اللغوي الذي طرحه إيوكورا ضمن نظرية العامل (Government and Building).

* جامعة مؤتة، الأردن.

** جامعة اليرموك، الأردن.

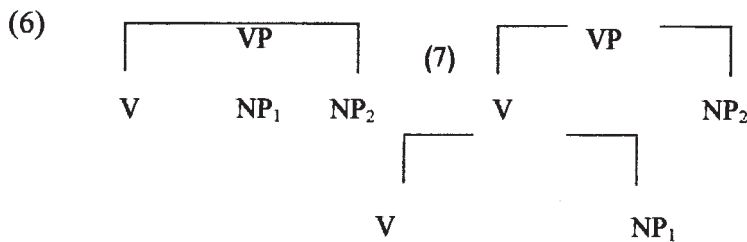
1. Introduction ¹

Double object constructions in English, as shown in sentences (1-4) below, have received a reasonable attention in recent literature. A number of proposals, Oehrle (1972, 1983), Emmonds (1972, 1976), Barss and Lasnik (1986), Iwakura (1987) and Larson (1988), have been advanced in order to explain the asymmetries in the syntactic behavior of direct and indirect objects with respect to c-command and movement. Consider the following examples:

- (1) John gave Mary a letter.
- (2) *Who did John give t_i the letter?
- (3) What $_i$ did John give Mary t_i ?
- (4) Mary was given t_i the letter.
- (5) *The letter $^{\wedge}$ was given Mary t_i .

Sentences (2) and (3) illustrate that the direct object, rather than the indirect object, is subject to Wh-Movement. On the other hand, the indirect object, rather than the direct object, can undergo NP-Movement to yield grammatical sentences as shown in (4) above.

The most frequently adopted hypotheses for the structures of double object constructions (henceforth DOC), are those as in (6) and (7)² below.



Following is the standard definition of c-command, which states that:

- (8) C-Command: Node A c-commands node B iff:
- a) A does not dominate B and B does not dominate A, and
 - b) the first branching node dominating A also dominates B.

NP₁ and NP₂ in (6) above mutually c-command each other, but in (7) above NP[^] asymmetrically c-commands NP[^], but not conversely. However, it has been noted that DOC in English cannot be accommodated within those representations in (6) and (7) because of the asymmetries that such structures show, as pointed out by Barss and Lasnik (1986). For instance, in a sentence of the following type:

- (9) a. I showed Mary herself.
b. * I showed herself Mary.

DOC's show asymmetries in anaphoric relations. Then while (9a) is grammatical, (9b) is not. Anaphors must be c-commanded (i.e. bound) by their antecedents.

¹ We want to express our gratitude to Professor Aziz Al-Yusuf and Professor M. Bakir for reading and offering valuable comments on an early draft of this paper. Needless to say, the contents remain entirely our own responsibility.

² The former analysis is proposed by Oehrle (1976), but the latter by Chomsky (1981)

Arabic³ exhibits similar asymmetrical relations as those of English. Regarding reflexives in Arabic, consider the following example:

- (10) a. ?arayu Caliyyan nafsahu.
 showed-I Ali-Acc self-his
 'I showed Ali himself'
 b. * ?arayu nafsahu Caliyyan.
 showed-I self-his Ali
 'I showed himself Ali'

This example illustrates that if the principle that the anaphor must be c-commanded by its antecedent is to be held, then Caliyyan must c-command nafsahu and not conversely.

As double object constructions in English show asymmetries regarding quantifier pronoun binding, the same holds for Arabic. Examine the following example:

- (11) a. ?aCTaytu kulla Caamilin ?ajrahu.
 gave-I every worker-Gen pay-his
 'I gave every worker his pay'
 b. * ?aCTaytu:, ?ajrahu kulla Caamilini
 gave-I pay-his every worker
 '* I gave his pay every worker'

Arabic DOC's show identical asymmetries to those of English with regard to weak crossover (i.e. a wh-phrase fronted from the first object can bind into the second object, but not vice versa):

- (12) a. li-?ayyi rajulini ?aCTayta Pajra-hu;
 to-which man you-give(pst) pay-his
 'To which man did you give his pay?'
 b. * ?ajra man^ ?aCTayta SaHiba-hu;
 pay who you-give(pst) owner-his
 '* Whose pay did you give his owner?'

Example (12b) shows that a wh-phrase c-commanded at D-structure by an NP containing a pronoun, coreferential with the wh-phrase, cannot be moved over that NP.

II. SOME RECENT ANALYSES OF DOC'S

There have been a number of recent studies of DOC's. Here we would like to briefly show (following Iwakura, 1987) that these studies have not been convincing, and later we will show that data from Arabic supports the analysis proposed in Iwakura (1987).

The first proposal that we want to deal with is that of Czepluch (1982)⁴. He assumes that the structure of (1) above is as shown below:

- (13) John INFL give [e Mary] the letter

Within Czepluch's framework, it is assumed that the empty headed, PP is a neutralized NP-PP with the features [-V, & N]. The PP may be neutralized when it is adjacent to a verb. But in (13) above, the verb directly governs and assigns Case to the direct object, the letter, and also governs the empty P. The direct object, then, receives Case from P by transmittance.

³ This seems, to the best of our knowledge, to be the first study on double object constructions in Arabic.

⁴ It should be noted that the studies mentioned briefly in this section have been adequately analyzed and criticized in Iwakura (1987).

As for a sentence such as (3) above, repeated here as (14) :

(14) * Who_i did John give t_i a letter?

Czepluch (1982:22) assumes that there are four possible structures:

- (15) a. [_s [_{pp} e who] [_s ... give [_{pp} t] a letter]]
 b. [_s [_{pp} e who] [_s ... give [_{NP} t] a letter]]
 c. [_s [_{NP} e who] [_s ... give [_{pp} t] a letter]]
 d. [_s [_{NP} e who] [_s ... give [_{NP} t] a letter]]

In (15a,b) the empty category P is not properly governed; thus these two structures are ruled out because of the Empty Category Principle (hence ECP) violation. In (15c), on the other hand, who is not Case-marked because its PP is not subject to Case-marking. Finally, in (15d) the verb give cannot assign Case to both the trace and the NP, because of the single-Case condition.

In his account of passive sentences of this type:

- (16) a. Mary_i was given t_i the letter.
 b. * The book was given Mary

Czepluch assumes the following structures for both (16a) and (16b), respectively:

- (17) a. Mary INFL be given [_{xp} t]
 b. The book INFL be given [e Mary] [_{NP} t]

In (17a) Czepluch assumes that the book is Case-assigned by the passive participle, while in (17b) Mary is assigned Case through transmittance of government. He states that in those dialects where (17b) is not acceptable, the neutralization of the empty P by the passive participle is impossible.

Czepluch's analysis is not adequate for a number of reasons. Firstly, there is no clear reason why the assignment of case to the direct object (DO) in (18) below does not violate the Adjacency Condition⁵:

(18) John INFL give [e Mary] the book.

In (18) the verb give and the DO are not adjacent.

Secondly, the DO in Czepluch's sentence (repeated here as (19)) is caseless because the passive participle is not a proper governor, hence movement of the DO NP is necessary:

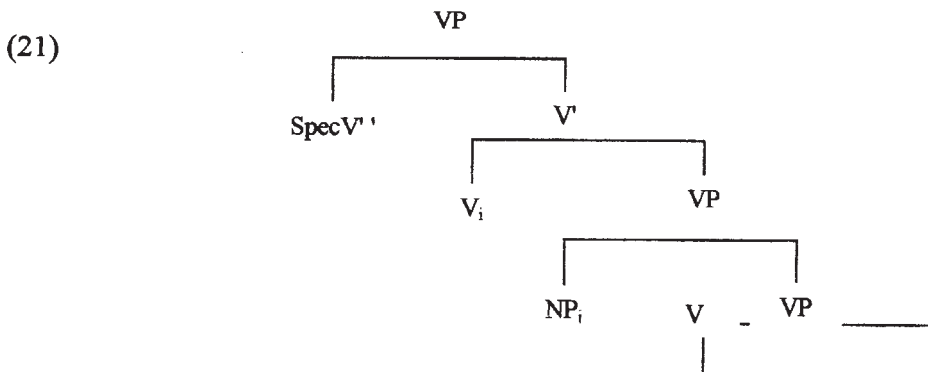
(19) * Mary INFL be given the book.

Thirdly, Czepluch assumes that double object constructions are derived from different structures.

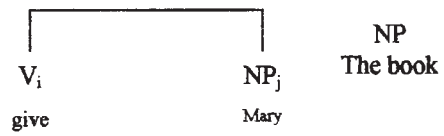
The second study that pertains to DOC is that of Larson (1988). Larson assumes that sentence (20) below:

(20) John gave Mary the book.

may be represented in a structure such as in (21) below:

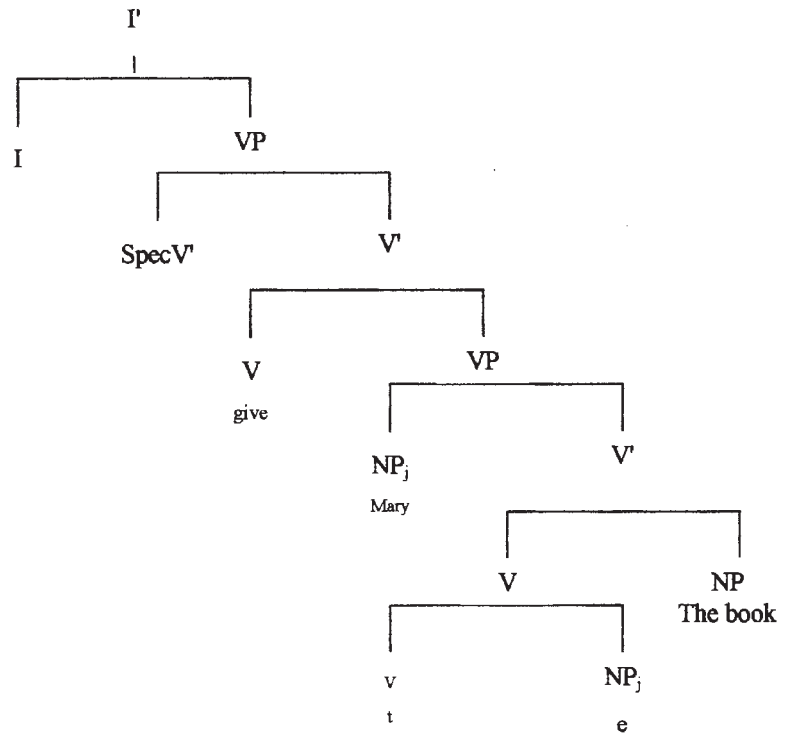


⁵ This condition has originally been proposed by Stowell (1981).



The indirect object is moved to VP subject position and the verb is raised to the V-head position. The two movements yield a structure in (22):

(22)



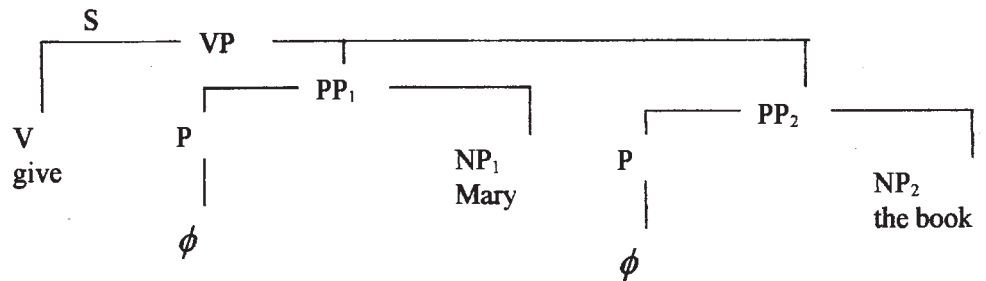
Aoun and Li assume that the empty verb is both a Case-assigner and a proper governor. Thus in (27b) the empty verb will assign Case to the trace of the DO, the book. By the same token, in (27a) the empty verb properly governs and assigns Case to the trace of the IO, Mary. But the sentence is ungrammatical and this creates a problem for their model.

Iwakura (1987) seems to overcome the shortcomings of the previous proposals. Following Kayne (1984) and Czepluch (1982), he assumes that the DO and the IO in DOC's appear as objects of zero prepositions ϕ , which are assumed to be case assignors, as demonstrated in configuration (28) below;

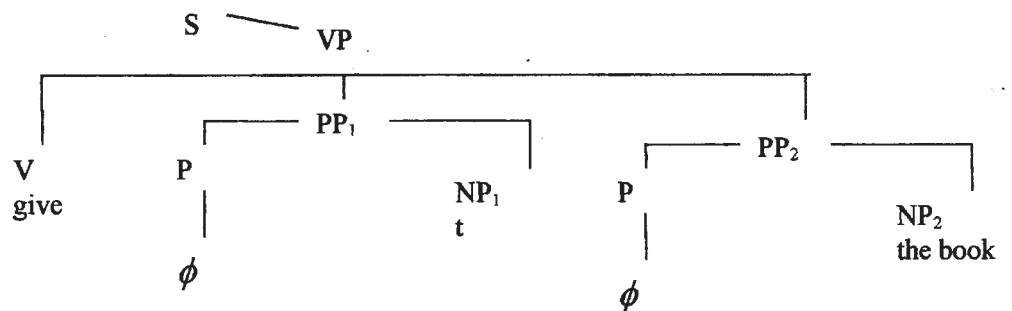
(28) [_S [_{NP}] [_{VP} [_{PP}₁ ϕ [_{NP}₁]] [_{PP}₂ ϕ [_{NP}₂]]]]]

Thus in sentences such as (29), (30) and (31), NP₁ and NP₂ appear as objects of two independent prepositions.

(29) John gave Mary the book.

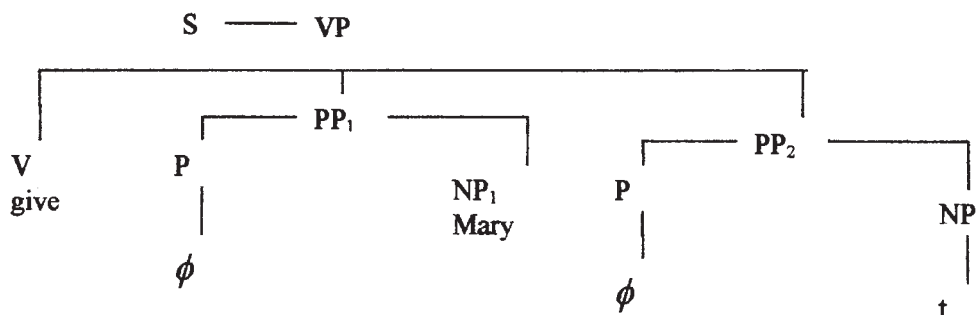


(30) * Who_i did John give t_i the book?⁷



⁷ Whitney (1982) was quoted by Emonds (1986:189) as saying that examples such as (32) can be accounted for within the GB framework by saying that the trace left by Wh-Movement must be A- free in the domain of the operator that A-binds it. This proposal cannot, however, account for sentences where refuse and cost appear, since such verbs do not allow alternative constructions with lexical PPs. (Cf. Iwakura, 1987:92)

(31) What_i did John give Mary t_i?



In (29) above PP₁ is governed and receives Case from *give*, i.e. it is case-marked. However, Iwakura does not explicitly state how the second PP receives its Case. We think that he follows Larson's assumption that the second PP gets its Case through the process of *transmission*. According to Iwakura's analysis, the preposition ϕ being a case-assigner, assigns Case to both *Mary* and *the book*. The verb *give* being a transitive verb assigns Case to its adjacent PP₁. According to him, Case-assignment of DO does not conflict with the Adjacency Condition on case-assignment.

In order to account for sentence (30), he assumes that the preposition ϕ is deleted when it is adjacent to the verb and that the case-marked PP is a barrier to the deletion of γ . He states that it is a widely accepted assumption that when a maximal projection (PP) is governed by a governor, its head is also percolation-governed⁸. He further explains that when a maximal projection, in this case the PP, is percolation-governed by a governor, then its head, P= ϕ , inherits the properties of the proper governor. He also assumes that case-marked PP is barriers to percolation-government as well as to the deletion of ϕ .

In sentence (30), the P= ϕ that is adjacent to the verb is undeletable because its PP is case-marked. Moreover, this preposition does not undergo percolation-government because its case-marked PP is a barrier to percolation-government. Hence, this preposition is not a proper governor and the trace is not properly governed, violating the Empty Category Principle (ECP) and this explains the ungrammaticality of (30) above.

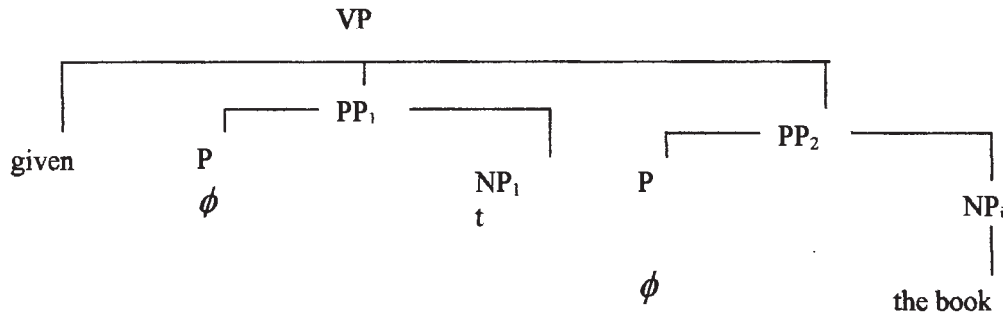
Iwakura states that the preposition *S* adjacent to the verb in sentence (31) is undeletable since the PP is case-marked and its head assigns Case to *Mary*. The second PP that contains the trace is not case-marked because of the Adjacency Condition on case-assignment, and it is subject to percolation government. Thus, the proposition ϕ being percolation-governed by the verb (a proper governor) inherits the properties of the proper governor and properly governs the trace in accordance with the ECP- hence, the grammaticality of (31).

His analysis accounts satisfactorily for the difference in movability by Wh-movement between the two objects of DOC's.

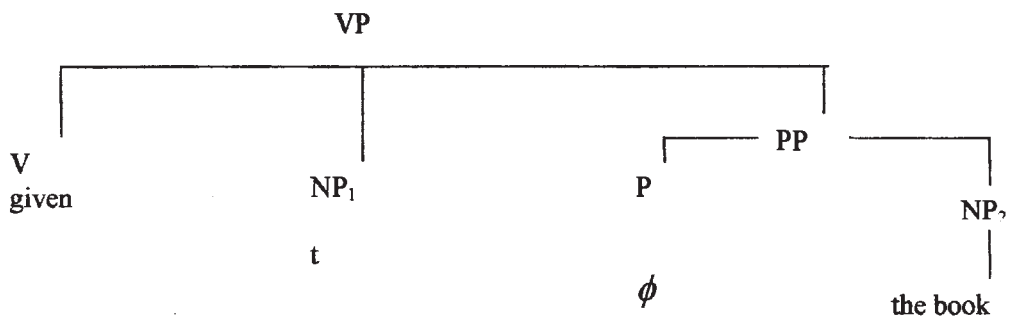
Then, Iwakura proceeds to show how his analysis accounts for another basic property of DOC's with respect to NP-movement, and he cites this example:

⁸ 'Percolation-governed' means that after the verb assigns Case to the maximal projection (PP), the Case percolates down to the head (P).

(32) Mary_i was given t_i the book.
 which is represented as:
 (33)



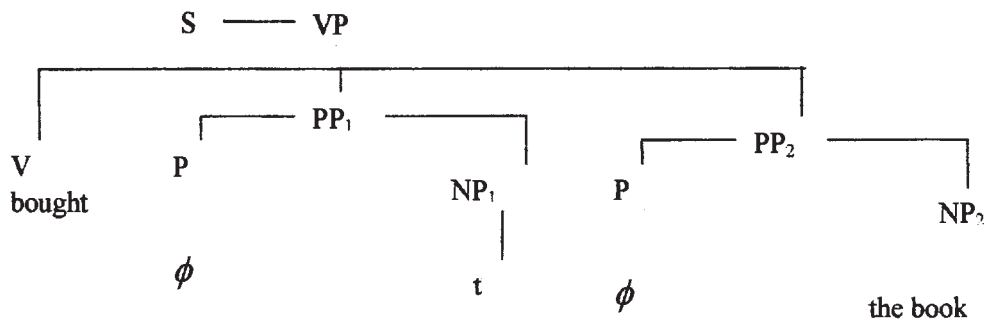
In his analysis of (33) above Iwakura states that the PP₁ adjacent to the verb is not case-marked because the verb is a passive participle, which does not assign case. Thus, its head P \emptyset is deleted after the non-branching PP is deleted, leaving an NP behind. This process gives structure (34) below where the trace is properly governed by the verb in accordance with the ECP:



He also states that *give-type* verbs behave differently from *buy-type* verbs.

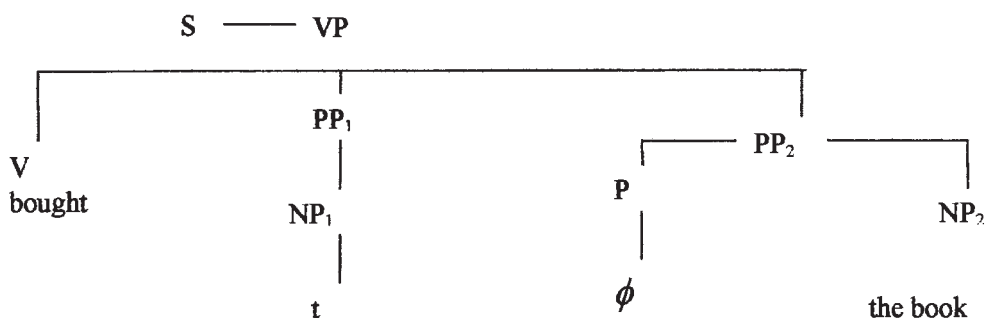
Iwakura's analysis of buy-type verbs goes as follows. Consider the following example of his:

(35) Mary_i was bought t_i the book.



Here, he argues that the proposition ϕ , adjacent to the verb is deleted while the PP is not deleted, because buy-type verbs in his analysis do not permit PP-deletion. Hence the resulting structure is as follows:

(36)

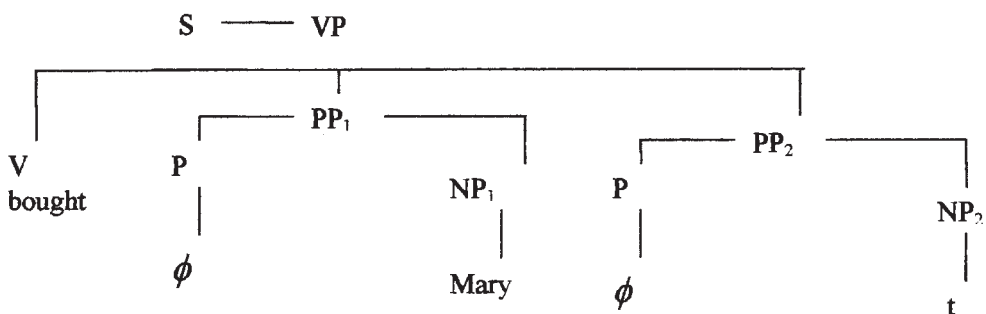


The trace contained in PP₁ is not properly governed because of the intervening node PP₁. Thus the structure is ungrammatical because it violates the ECP.

However, in a structure such as (37b) below:

(37) a. *The book_i was bought Mary t_i.

b.



the trace is not assigned Case due to an independently needed filter, i.e. *_[pp eobj] posited by Iwakura (P.88).

III. ARABIC DATA

Standard Arabic also exhibits double object constructions as in sentences (38-42):

(38) a. aCTa Calyy-un kitab-an li-zaid-in
gave Ali-Nom book-Acc to-Zaid-Gen
'Ali gave a book to Zaid'

b. ?aCTa Calyy-un Zaid-an kitab-an
gave Ali-Nom Zaid-Acc book-Acc
'Ali gave Zaid a book'

(39) a. ?ishtara Caliyun kitab-an li-Zaid
bought Ali book to-Zaid

'Ali bought a book to Zaid'

b. * ?ishtara Caliyun Zaid-an kitab-an
bought Ali-Nom Zaid-Acc book-Acc

'* Ali bought Zaid a book'

- (40) a. *zawwada ?al-Tabiib-u ?al-mariidh-a bi-l-Cilaaji*⁹
 provided the-doctor-Nom the-patient-Acc with-medicine
 b. * *zawwada ?al-Tabiib-u Cilaaj-an ?al-mariidh-a*
 provide the-doctor-Nom medicine-Acc the-patient-Acc
 'The doctor provided the patient with medicine'
- (41) a. *?aqra?tu ?al-darsa li-l-waladi*
 caused-I-to read the-lesson to-the-boy
 b. *?aqra?t-u ?al-walada ?al-darsa*
 caused-I-Nom the-boy-Acc the-lesson-Acc
 'I caused the boy to read the lesson'
- (42) a. *?ashrabbtu ?al-Haliiba li-T-Tifli*
 I-caused to drink the-milk the-child
 b. *sharrabt-u T-Tifla ?al-Haliiba*
 caused-I the-child-Acc the-milk-Acc
 'I caused the child to drink the milk'

Our analysis of Arabic double object constructions follows from the following assumptions. First, we will assume, following most Arab grammarians, that the basic word order in Arabic is VSO. In such an order the verb first assigns the nominative case to the subject and assigns the accusative Case to PP1. Secondly, following Iwakura (1987), we will assume that the 10 maximal projection is a PP whose head will be a zero preposition ϕ which is a case assigner, too. Thirdly, and following Emonds (1976), we will assume the direct object (DO) also appears as the object of a zero preposition ϕ . PP1 in this order will receive its case from the verb, assuming that the intervening subject is not a barrier to case-assignment. PP2 will receive its case from PP1 through transmission (Larson, 1988). Traditional Arab Grammarians assume that the DO is not part of a PP structure, irrespective of whether it occurs adjacent to the verb or not. PP structure has been adopted regarding 10 when it occurs in sentence final position¹⁰. In order to illustrate the above assumptions, we will provide this example:

- (43) *?aCTa Caliyyun Zaid-an kitab-an*¹¹
 gave Ali-Nom Zaid-Acc book-Acc
 'Ali gave Zaid a book'

Tree-diagram (44) is a representation of (43)¹². The verb *?aCTa* first assigns the nominative Case to **Caliyyun** and second assigns Case to PP1.

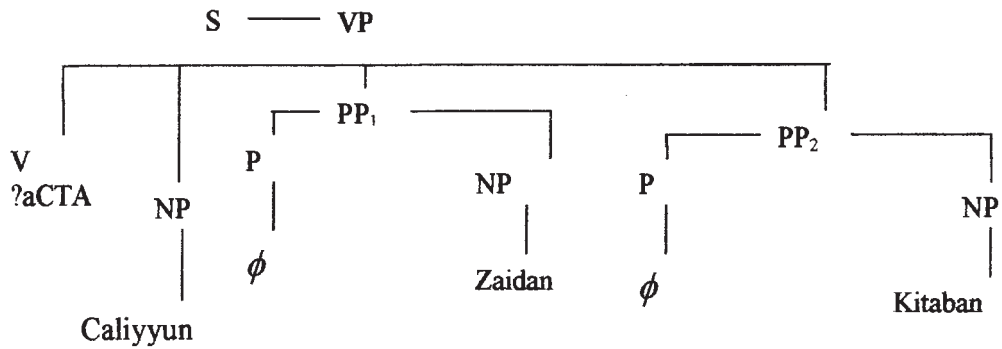
(44)

⁹ It should be mentioned that 'ishtara' and 'zawwada'-type verbs in Arabic can only be made ditransitive by the use of a preposition as in the case of (29a) and (30a). Hence, they will not be considered in this study.

¹⁰ Abbas, Hasan, vol. 2, p. 150.

¹¹ We will assume that example (33) is the derived structure of (28). Similar examples will be treated the same.

¹² The maximal projection of the categories V, NP, PP1 and PP2 is S, rather than the VP as is the case in English.



The preposition ϕ , being percolation-governed by PP_i, inherits its properties and thus assigns the objective Case to *Zaid*. PP_i is not deleted because it is case-marked. PP₂ will receive its Case from PP_i through transmission.

Examples (39-42) can be represented in the same manner as (43).

On semantic grounds. Traditional Arab Grammarians believe that in sentence (43) above *Zaid* is the agent while *kitab* is the patient. This paper limits itself to syntactic analysis.

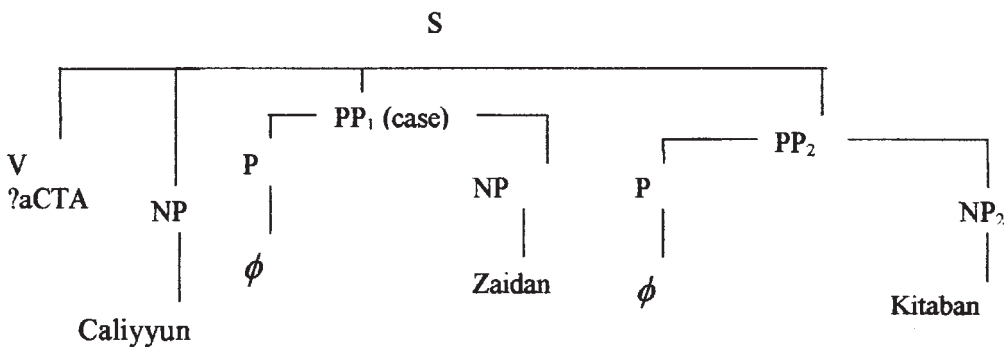
In this section we will handle wh-movement and NP-movement, applying Iwakura's model to Arabic.

Consider the following sentence:

(45) ?aCTa Caliyyun Zaidan kitaban
give(pst) Ali-nom Zaid-acc book-acc
'Ali gave Zaid a book'

Following Iwakura's model this sentence will be represented as follows:

(46)

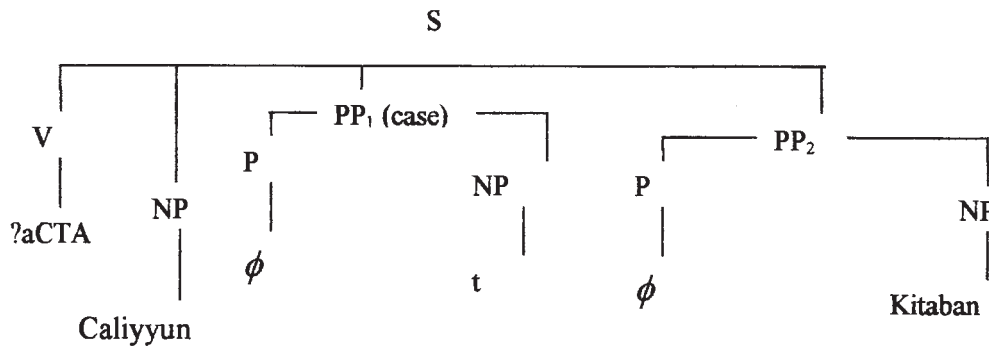


In sentence (45) the verb ?aCTa, being a ditransitive verb, assigns Case to PP_i. P, being a case-assigner, assigns Case to *Zaid* and *kitab* in both PP₁ and PP₂. Thus, the resulting structure is grammatical.

Example (47) below can be represented as shown in (48):

(47) * man_i ?aCTa Caliyyun t_i kitaban?
who give(pst) Ali-acc t book-acc
'*Who gave Ali a book?'

(48)



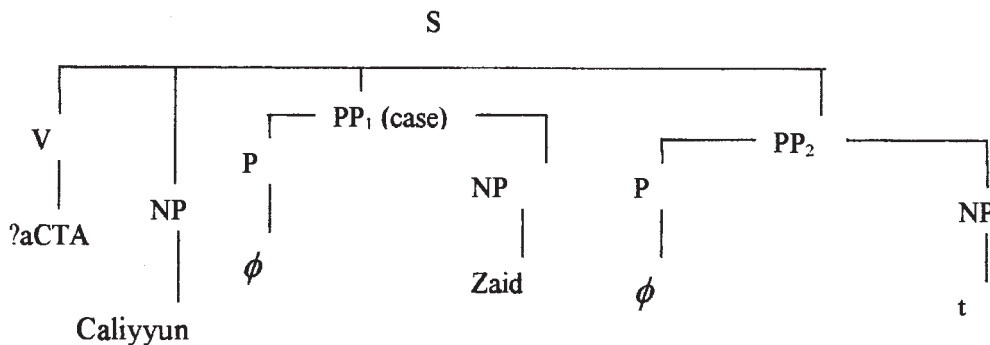
The preposition ϕ of PP₁, being close to the verb, is deleted. However, because PP₂ is case-marked it is a barrier to the deletion of ϕ . Moreover, the preposition ϕ is not percolation-governed (i.e. it does not inherit the properties of the proper governor). Thus, the trace is not properly governed, violating the ECP. This explains the ungrammaticality of (47).

Now consider this example:

- (49) matha, ?aCTa Caliyyun Zaidan t_i ?
 what, give(pst) Ali-nom Zaid-acc t_i ?
 'What did Ali give Zaid?'

In structure (50) below:

(50)



the preposition ϕ closer to the verb is undeletable since PP₁ is case-marked and thus assigns Case to Zaid. PP₂ containing the trace, on the other hand, is not case-marked due to the Adjacency Condition on Case assignment. However, it is subject to percolation government. Being percolation-governed by the verb (a proper governor), it inherits its properties and properly governs the trace in accordance with ECP. This explains the grammaticality of this sentence.

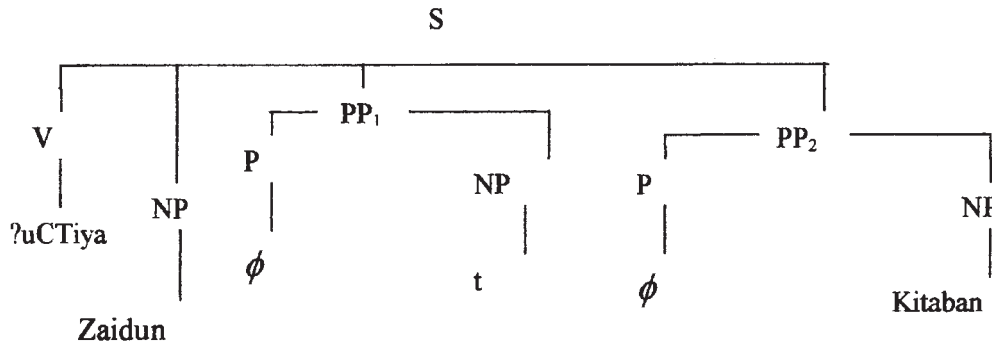
Now we proceed to see how the present approach accounts for NP-movement in Arabic. Consider the following example:

- (51) a. ?aCTa Caliyy-un Zaid-an kitab-an
 gave Ali-Nom Zaid-Acc book-Acc
 'Ali gave Zaid a book'

- b. $\text{?uCTiya Zaid-un kitab-an}^{13}$
 given Zaid-Nom book-Acc
 'Zaid was given a book'
 c. $*\text{?uCTiya kitab-an Zaid-an}$
 given book-Acc Zaid-Acc

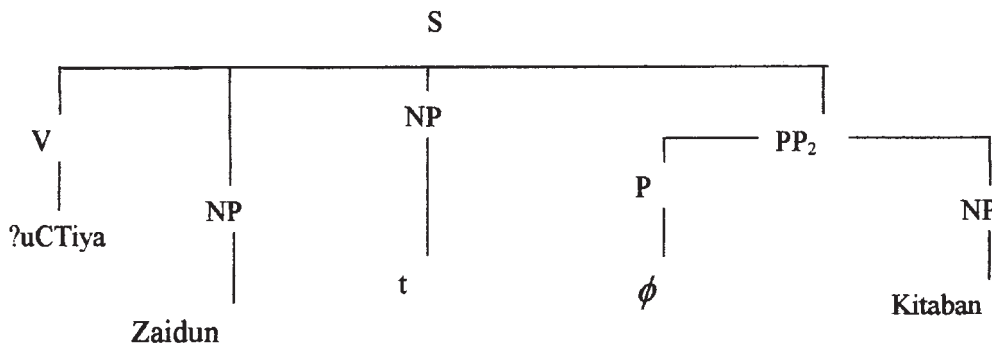
Sentence (51b) can be represented as follows:

(52)



We will assume here that Arabic verbs with passive morphology do not assign Case. As a result, PP₁ is not assigned Case. Therefore, the preposition ϕ adjacent to the verb is deleted, leaving PP₁ a non-branching node and yielding this structure:

(53)

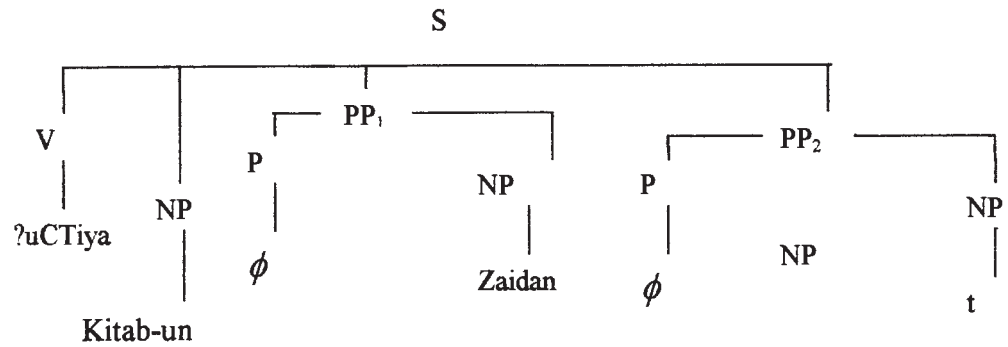


Now, the trace is properly governed by the verb in accordance with the ECP; hence the grammaticality of (51b).

Regarding (51c), it can be assigned a structure as in (54) below:

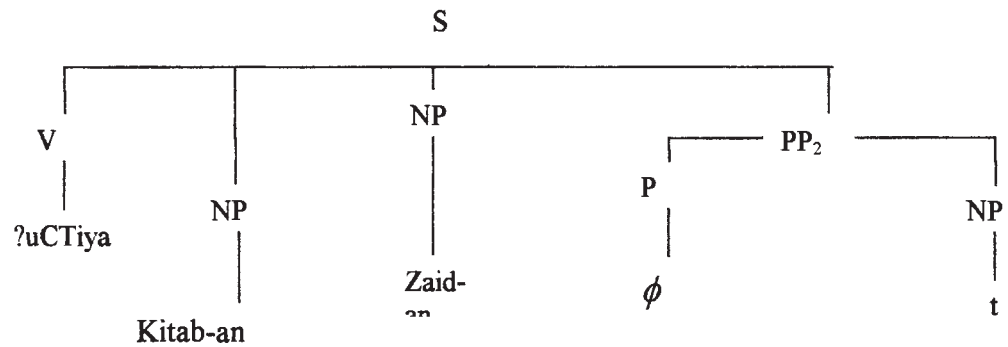
(54)

¹³ It is worth noting that in forming the passive in Arabic the IO moves to a position adjacent to the verb and receives the nominative Case. DO, on the other hand, cannot move to this position and this rules out sentence (52c).



As can be seen from this tree-diagram, the direct object (*kitab*) moves from PP₂ to the position of the NP following the verb where it receives the nominative Case because it lands in a nominative site. PP₁ is not case-marked because the verb is in the passive form which means that the preposition ϕ , adjacent to the verb is deleted, yielding the following structure:

(55)



In (55) *Zaid* is without Case, simply because there is no case-assigner and this violates the Case Filter and renders (51c) ungrammatical.

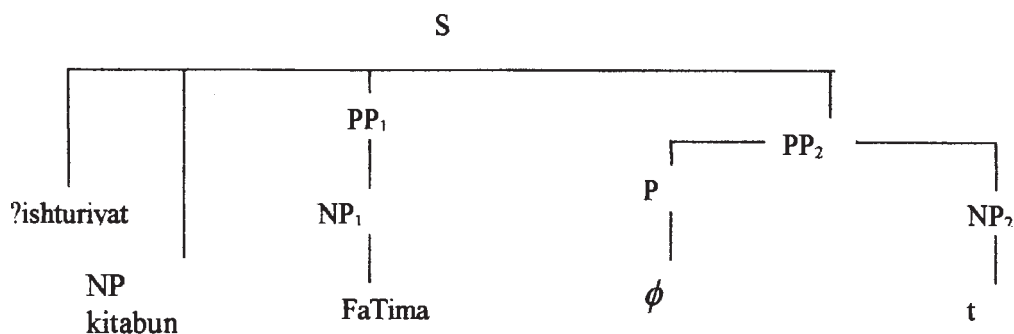
Now consider these sentences that involve the verb *buy*:

(56) *?ishturiyat FaTimat-u kitab-an
bought(pst) FaTima-nom book-acc
FaTima was bought a book

(57) *?ishturiya kitab-un FaTimat-a
bought(pst) book-nom FaTima-acc
A book was bought FaTima

(58) ?ishturiya kitab-un li-FaTimat-a
bought book-nom for-FaTima-acc
A book was bought for FaTima

Sentences (56) and (57) are assigned structures (59) and (60), respectively:
(59)



In (59) the trace of *FaTima* is not properly governed due to the intervening PP that functions as a barrier to proper government. Thus (60) is ruled out due to the ECP violation. By the same token, the trace of *kitab* is left without Case, again due to the same barrier, PP. The ungrammaticality of (60) is due to the Case Filter violation¹⁴.

Sentence (58) is grammatical in Arabic since both *FaTima* and the trace are assigned Case and properly governed, respectively. This suggests that Iwakura's statement regarding preposition deletion with *buy-type* verbs and surely with *give-type* verbs, should be modified as follows:

(63) The preposition that is adjacent to the verb should be deleted, unless it involves an overt preposition.

The PP in (58) includes an overt preposition that could not be deleted. Otherwise, a deviant structure results:

(64) * ?ishturiya kitab-un FaTimat-a
 bought(pst) book-nom FaTima-acc
 'A book was bought FaTima'

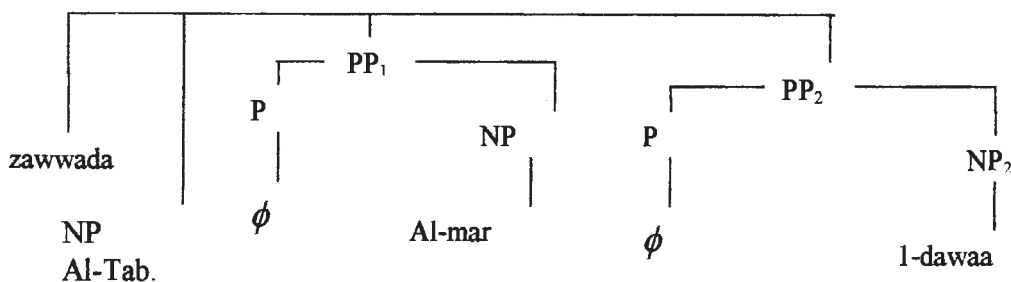
Let us now consider examples that involve the verb *zawwada* 'supply':

(65) *zawwada* ?al-Tabiib-u ?al-mariidh-a Bi-l-dawaa?i
 the-patient-acc with-the medicine 'The physician provided the patient with medicine'

(66) *zawwada* ?al-Tabiibu ?al-mariidha Al-dawaa?a
 provide (pst) the-physician-nomthe-patient-acc the-medicine
 'The physician provided the patient medicine'

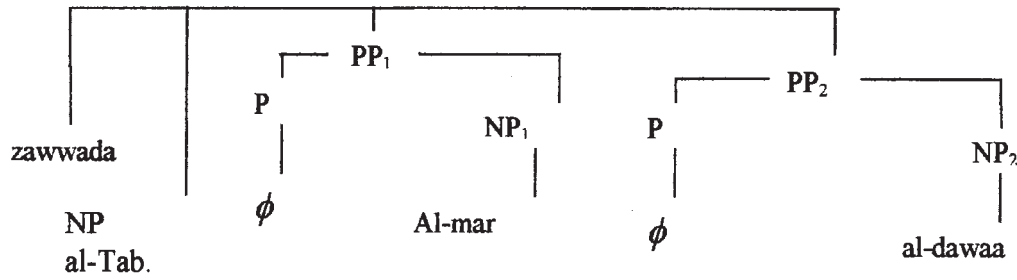
These Arabic sentences can be represented as in (67) and (68), respectively:

(67)



¹⁴ Case Filter states that NPs with phonetic content must be case-marked.

(68)



In both sentences *al -dawaa* has parallel structures in that it is c-commanded and assigned Case by a preposition. The direct object is subject to wh-Movement, but not to NP-Movement. Compare the following sentences:

- (69) matha zawwada-l-Tabiib-u ?al-mariidh-a?
what provide(pst)-the-physician-nom the patient-acc
'What is the physician provide the patient?'
- (70) *matha_i zawwada-l-Tabiib-u ?al-mariidh-a bi t_i ?
what provide(pst)-the-physician the-patient with?
'What did the physician provide the patient with?'
- (71) *zuwwida-l-dawaa?-u al-mariidh-a
provide(pst)-the-medicine-nom the-patient
'The medicine was provided the patient.'

It should be noted that (70) is ungrammatical because Standard Arabic does not allow preposition stranding.

VI. CONCLUSION

There is a need to investigate the behaviour of DO's in Standard Arabic in view of newly emerged linguistic insights. The universality of human languages requires that the syntactic behaviour of DO's as envisaged by Iwakura should hold of Standard Arabic. The zero manifestation of a preposition underlying the structure of DO's is unrealizable yet as far as Standard Arabic is concerned. It should also be realized that Iwakura's model, at best, is no more than an amalgamation of the analyses proposed by Kayne, Czepluch and Emonds. In an emphatic sense, there is a feature in the nature of the verb give itself (and similar verbs, such as buy) that allows the use of two objects.

REFERENCES

- Abbas, Hasan. (1973) *Al -naHw Al -Wafi* vol. 2 . Cairo: Par Al -maCarif .
- Aoun, J. and Y.A. Li (1989) *Scope and Constituency*. *LI* 20, 141-172.
- Barss, A. and H. Lasnik (1986) *A Note on Anaphora and Double Objects*.
LI 17, PP. 347-354.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Foris: Dordrecht
- Czepluch, H. (1982) *Case Theory and the Dative Construction*. *The Linguistic Review* 2, 1-38.
- Dryer, M. (1987) *On Primary Objects, Secondary Objects and Antidatives*.
Language 62, 808-845.
- Emonds, J. (1972) *Evidence that Indirect Object Movement is a Structure Preserving Rule*. *Foundations of Language* 8, 546-561.
- Emonds, J. (1976) *A Transformational Approach to English Syntax: Root, Structure-Preserving, and Local Transformations* N.Y. : Academic Press.
- Feldman, H. (1978) *Passivizing on Datives in Greek*. *LI*. 9, 499-502.
- Givon, T. (1984) *Direct Object and Dative Shifting: Semantic and Pragmatic Case*. In F. Plank (ed.) *Objects* London: Academic Press.
- Iwakura, K. (1987) *A Government Approach to Double Object Constructions*. *LA* 17, 78-98.
- Kayne, R. (1984) *Datives in French and English*, in *Connectedness and Binary Branching*. Dordrecht: Foris.
- Larson, R. K. (1988) *On the Double Object Construction*. *LI*. 17,347-391.
- Oehrle, R. T. (1976) *The Grammatical Status of English Dative Alternation*. Doctoral Dissertation, MIT.
- Oehrle, R. T. (1983) *The Inaccessibility of the Inner NP: Corrections and Speculations*. *LA* 12, 159-171.
- Stowell, T. (1981) *Elements of Phrase Structure*. MIT Dissertation.
- Whitney, R. (1982) 'The Syntactic Unity of wh-Movement and Complex NP Shift.'
LA, 10:299-319.
- Zhang, Shi (1990) *Correlations between the Double Object Construction and Preposition Stranding*. *LI* 21(2), 312-316.