

## **Abstract**

The paper considers how to account for the distribution and reference of the reflexive pronouns *nafsahu* / *nafsuhu* in Arabic within the Binding Theory. Anaphoric *nafsahu* can appear in argument positions, whereas emphatic *nafsuhu* / *nafsahu* can appear mainly in non-argument positions. It is shown that the Binding Theory can handle adequately the facts of Arabic reflexives. Unlike the traditional view, it is proposed that reflexive should be treated as a compound word for this will help to capture the facts neatly. It is also shown that Arabic lacks long distance reflexives because it does not have a morphologically simple reflexive *nafs*.

# **Reflexives in Arabic: A Binding Approach**

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## **1. Introduction**

The present study tries to account for the distribution and reference of the reflexive pronouns *nafsahu/nafsuhu* in Arabic within the Binding Theory. Generally speaking, reflexives in Arabic and English are similar in both syntactic and semantic functions but different in their morphological arrangements. Both are compounds which consist of a possessive modifier plus a noun head, but the constituents of the compound in Arabic are different in order and form from those in English. In English the same form *himself* is used for both anaphoric and emphatic functions, whereas in Arabic there are two different forms though closely related: *nafsahu* and *nafsuhu*. Both can be used as anaphoric and emphatic<sup>1</sup> depending on the grammatical case. A range of properties of reflexives in Arabic will be discussed in this study.

## **2. The distribution and form of Nafsahu / Nafsuhu**

*Nafsahu* could be anaphoric and emphatic while *Nafsuhu* is only emphatic, but both must be related to some other Np in the sentence, e.g the subject Np Zayd in (1) and (2), though they differ from each other in their distribution.

(1) Jaraha zaydun nafsahu.

hurt-he zayd self him.

‘Zayd hurt himself’.

(2) Jaani zaydun nafsuhu

came-he to me zayd self him

‘Zayd himself came to me’.

Anaphoric *nafsahu* is used in (A)rgument positions<sup>2</sup>, whereas emphatic *nafsuhu/ nafsuhu* are found mainly in non-argument positions. In the following examples, *nafsahu* is used anaphorically:

(3) yalumu zaydun nafsahu

blame-he zayd self him

‘Zayd blames himself’

(4) ishtra zaydun linafsihi<sup>3</sup> qamisan.

bought-he Zayd for self him a shirt

‘Zayd bought a shirt for himself’

In (3) *nafsahu* is anaphoric in use and occurs as a direct object, in (4) as an object of preposition whereas in (5), where *nafsuhu* appears after the subject, it is emphatic in use:

(5) zaydun nafsuhu sayaktubu alrisalata.

Zayd self him will write the letter

‘Zayd himself will write the letter’

The other main distinction between *nafsahu* and *nafsuhu* is the choice of the Np they are related to. Generally, the antecedent of *nafsahu* is limited to animate nouns (i.e metaphorical usage is excluded). Consider:

(6) ana ʔrifu nafsi

I know-I self my

‘I know myself’

(7) taləaql qitatu nafsaha

lick-she the cat self her

‘The cat licks herself’

(8) \*aglaqa l babu nafsahu.

closed-it the door self it

‘The door closed itself’

As regards emphatic *nafsuhu*, it may be related to both animate and inanimate nouns:

(9) layla nafsuha tatbaku l taəama.

Layla self her cook the food

‘Layla cooks the food herself’

(10) satabhathu l qitatu əanial tazami binafsiha

will find-she the cat about the food by herself

‘The cat will find food by itself’

(11) ingalaqa l babu min tilqa’i nafsihi

closed-it the door of self it

‘The door closed of itself’

Both *nafsahu* and *nafsuhu* may be optionally preceded by a pronoun (such as ana ‘I’, huwa ‘he’, hiya ‘she’, ..etc). which matches its antecedent in features:

(12) a. (ana) alumu nafsi

I blame self my

‘I blame myself’

b. katabat Li (hiya) nafsuha

wrote-she to me she self her

‘She herself wrote to me’

c. muhamadun safara (huwa) nafsuhu

Muhamad travelled he self him

‘Muhamad travelled himself’

(see AlGalayini, 1976, Vol. 3:235)

Arab grammarians treat the pronoun in *nafsahu/ nafsuhu* as an independent pronouns attached to the noun nafs (see Al Galayini, 1976, vol.3: 233; and Hassan, 1966, vol. 3:504). In this study the pronoun is considered a compound word of the reflexive, much as the pronoun him in the English reflexive himself. The reason for this is that such pronouns are bound in the same way as the English reflexives are.

### **3. *nafsahu* and the Binding Theory**

So far we have shown the difference between the anaphoric and the emphatic reflexives. In this section the anaphoric reflexive *nafsahu* will be discussed in some detail.

According to Chomsky (1981: 188) the following are the binding principles:

- (A) An anaphor is bound in its governing category.
- (B) A pronominal is free in its governing category.
- (C) An R-expression is free.

So the Binding theory requires an anaphor to be bound in its governing category (anaphors include reflexives and reciprocals). The notion of binding and governing are defined as in (13) and (14).

(13) A binds B if and only if (iff) A c-commands B and A is co-indexed with B.

(14) A is the governing category for B iff A is the minimal category

containing B, a governor of B, and a subject accessible to B.

(A = NP or S)

(see Haegeman, 1995:222)

The notion of c-command is defined by Kayne (1994) as:

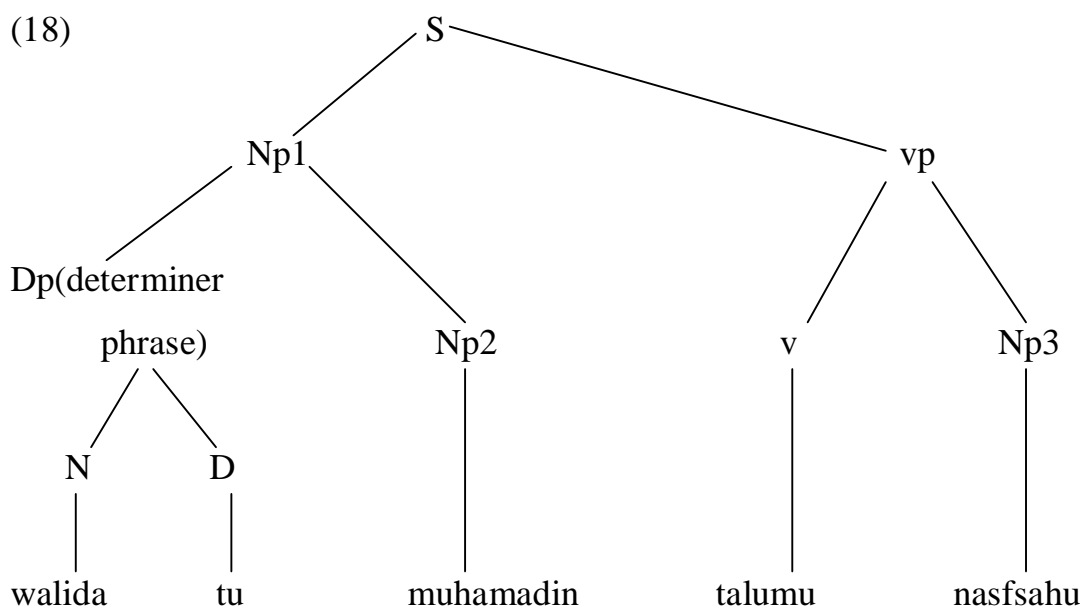
(15) A c-commands B iff A does not dominate B and every category dominating A dominates B.

To illustrate the notion of c-command, let us compare the structure of (16) given in (18) with the structure of (17) given in (19):

(16)\* walidatu muhamadin<sub>i</sub> talumu nafsahu<sub>i</sub>;  
mother-Gen Muhamad blames self him.  
'Muhamad's mother blames himself'

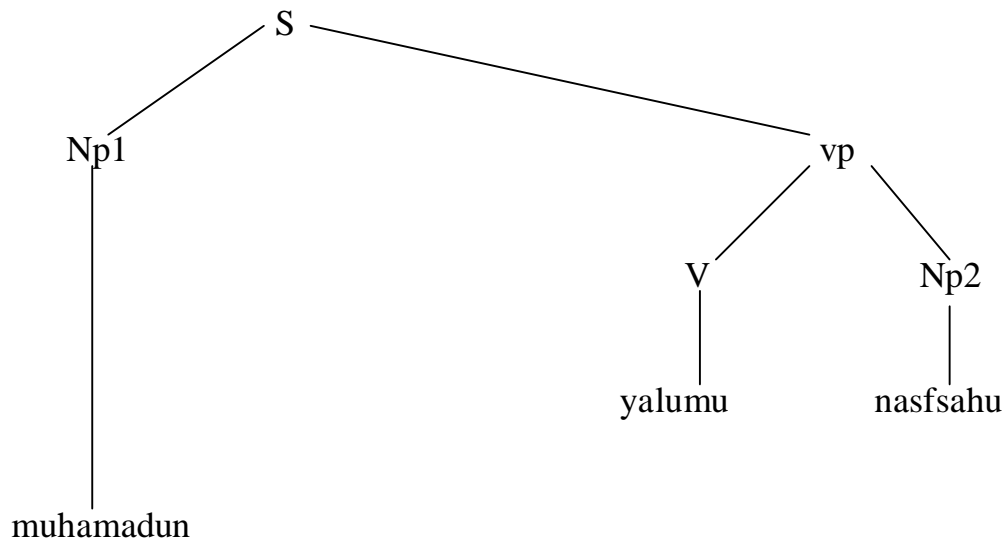
Co-reference is shown by indices.

(17) muhamadun<sub>i</sub> yalumu nafsahu<sub>i</sub>;  
'Muhamad blames himself'



If we consider NP2 to be A and NP3 to be B we can realize that not every category dominating NP2 dominates NP3. This is because NP1 dominates NP2 but does not dominate NP3. For this reason muhamadin cannot be the antecedent of nafsahu, and so the sentence is ungrammatical.

(19)



In (19), if NP1 is A in terms of the definition of c-command, it certainly does c-command NP2, which would be B. Every category dominating NP1, that is S, also dominates NP2, and, of course, NP1 does not dominate NP2. So in (17) muhamadun can be the antecedent of *nafsahu*.

Concerning reflexives, we can, then, say that they must be bound. In this regard Haegeman (1995:215) presents the following principle:

(20) Principle of reflexive representation: A reflexive x must be bound in the minimal domain containing x, x's governor and a subject.

Now, let us consider (21):

(21)\* Yabsibu zaydun<sub>i</sub> [anna nafsahu<sub>i</sub> ḍakiyun]

consider Zayd that self him intelligent

'Zayd considers that himself is intelligent'

It is not difficult to understand the meaning of (21). We can easily imagine how we should interpret this sentence, how the reflexive *nafsahu* could refer to its antecedent. In fact there is nothing semantically wrong about the meaning that we think for this sentence. But the problem is with syntax. The reflexive in (21) does not have a clause-mate<sup>4</sup> antecedent, so the sentence is ungrammatical.

The above case is supported by the fact that replacing the small clause<sup>5</sup>, i.e, *anna nafsahu ḍakiyun*, by another one, gives an acceptable sentence:

(22) *yahsibu zaydun nafsahu ḍakiyan*.

Consider Zayd self him intelligent

‘Zayd considers himself intelligent’

In (22) the meaning is exactly that we guessed for (21). So the syntax is imposing some kind of a ban on binding into small clauses.

Another constraint is: no binding across an intervening subject. This is seen in (23), where the relevant subject is underlined:

(23)\* *yadunu muhamadun<sub>i</sub> [anna zaydan jaraha nafsahu<sub>i</sub>]*

think Muhammad that Zayd hurt self him

‘Muhamad thinks that Zayd hurt himself’

In (23) binding is apparently not possible. The problem seems to be that the distance between *nafsahu* and its antecedent *muhamadun* is too long: *muhamadun* is too far away from the reflexive. Consider the grammatical (24) where *muhamadun* and the reflexive are closer to each other and where the NP *muhamadun* can bind the reflexive.

(24) *yaduna muhamadun [anna zaydan<sub>i</sub> jaraha nafsahu<sub>i</sub>]*



So the intervening subject in (23) ‘zaydan’ prevents *nafsahu* to bind with *muhamadun*. Chomsky (1973:239) calls the syntactic condition that makes (23) ungrammatical the ‘Specified Subject Condition’.

#### 4- Ordinary Pronouns

In order to understand the behaviour of reflexives in full it is necessary to compare them with ordinary personal pronouns such as: ana ‘I’, anta ‘you’(sing.), huwa ‘he’, hum ‘they’ ...etc. These pronouns are the opposite of reflexives: First, unlike reflexives, pronouns do not require antecedents (although they can have them)<sup>6</sup>. Consider:

(25) a. katabtu risalatan.

wrote-I a letter.

‘ I wrote a letter’

b. qala zaydun annahu kataba risalatan.

said Zayd that he wrote a letter.

‘Zayd said he wrote a letter’

As (25) shows there is no need at all for these pronouns to be bound by an Np, whether inside or outside a local domain, given the grammaticality of:

(26) safara

traveled – he

‘ He travelled’

Second, the antecedent of a pronouns does not have to c-command that pronoun. Compare (27) with (28):

(27) walidatu zaydin<sub>i</sub> talumuhu<sub>i</sub>.

mother Zayd blames him

‘Zayd’s mother blames him’

(28)\* walidatu zaydin<sub>i</sub> talumu nafsahu<sub>i</sub>:

mother Zayd blame self him

‘Zayd’s mother blames himself’

In (27) it is grammatically acceptable to interpret the pronoun-hu as standing for Zayd here, so the sentence can mean ‘Zayd’s mother blames Zayd’. Structurally speaking this sentence is exactly like (28) and so zayd does not c-command-hu in (27). However, Zayd can be the antecedent of-hu. This observation is just the opposite of reflexives as in:

(29) a. zaydun yalumu nafasahu

Zayd blame self him

‘Zayd blames himself.’

b. \*walidu Zaydin<sub>i</sub> yalumu nafsaha<sub>i</sub>

father Zayd blame self her

‘Zayd’s father blames herself’

(29-a) is acceptable and means ‘Zayd blames Zayd’; (29-b) can not mean ‘Zayd’s father blames zayd’ (it could mean ‘Zayd’s’ father blames Zayd’s father, but only if zayd’s father is feminine and the verb is ‘talumu’, since *nafasaha* has to agree in gender with its antecedent). What this means is that *zaydin* in (25-b) can not be the antecedent of *nafasaha*. If we go back and examine carefully the structure of (16) given in (18), we can immediately realize why this is so. Third, the antecedent of a pronoun can be quite far from the pronoun. The antecedent-pronoun relation does not appear to be affected by either the clause-mate condition or the specified subject condition, (30) shows this:

(30) yadunu zaydun<sub>i</sub> [anna muhamadan yakrahuhu<sub>i</sub>]

think zayd that Muhamad hates him

‘Zayd thinks that Muhamad hates him’

The antecedent-pronoun relation violates the clause-mate condition and goes across the subject of that clause. However, the relation is allowed; the syntax

allows us to interpret this sentence as meaning ‘Zayd thinks that Muhamad hates Zayd’.

The above differences between ordinary pronouns and reflexives show that each time the pronouns can have a wider range of structural relation with their antecedents than reflexives can.

Yet, we notice another difference between reflexives and pronouns, this time one which limits the possibilities of pronouns. The difference is this: the antecedent of a pronoun can not be too close to that pronoun. If the antecedent c-commands the pronoun, and is in the same clause as the pronoun, with no intervening subject of any kind, we will get an unacceptable sentence:

(31)\* zaydun<sub>i</sub> yalumuhu<sub>i</sub>

Zayd blame him

‘Zayd blames him’

In (31), as the indices show, the intended meaning is ‘Zayd blames Zayd’, but it is expressed ungrammatically.

What the above examples show is that the constraint on pronouns is that they must be free in particular syntactic domain, i.e., they and their antecedent can not be in the same syntactic domain. The domain in question is similar to that which constrains the binding of reflexives. So the clause-mate condition and the specified subject condition are relevant to pronouns too, but this time a pronoun requires that there must be a finite-clause boundary or a subject between the pronoun and a c-commanding antecedent. Consider (32):

(32) yaʒtaqidu zaliyun<sub>i</sub> ana Zaydan yakhdazhu<sub>i</sub>

believe Ali that Zayd cheat him

‘Ali believes that Zayd cheats him’

If we compare (32) with (22) we will see that pronouns must be free wherever reflexives must be bound.

### **5- Arabic and Long Distance (LD) Anaphors.**

In many languages (Dutch, Chinese, Icelandic, among others) reflexives seem to be able to have antecedents that are outside their binding domain. This phenomenon has become known as ‘Long Distance’ anaphor. According to Koster and Reuland (1991 : 10) Long distance anaphors have certain properties cross linguistically:

1- LD anaphors allow an antecedent outside their binding domain. Consider:

(33) Anna<sub>i</sub> telur [Pig<sub>i</sub> hafa svik ið sig<sub>i/j</sub>]

Anna believes you to-have betrayed self

‘Anna believes you to have betrayed { your / her self }

(Icelandic)

(34) Jan<sub>i</sub> liet [mij voor zich<sub>i</sub> werken]

John made me for self work

‘John made we work for himself’

(35) Zhangsan<sub>i</sub> renewi [Lisi<sub>j</sub> hurt Ziji<sub>i/j</sub>]

Zhangsan think Lisi hurt self

‘Zhangsan (m.) thinks Lisi (f.) hurt {him/her} self’

(Chinese)

(see Koster and Reuland, 1991:10)

Here we try to raise the question whether the Binding Theory is really universal. To answer this question let us examine the corresponding Arabic versions of (33), (34) and (35):

(36)\* taztaqidu layla<sub>i</sub> [ anaka qad fadahta nafsaha<sub>i</sub>]

(37)\* zaydun<sub>i</sub> jazala [ ni ashtagilu linafsihi<sub>i</sub>]

(38)\* yadinu zaydun<sub>i</sub> [ana layla jarahat nafsahu<sub>i</sub>]

As illustrated the sentences (36-38) are all ungrammatical in Arabic. Binding Theory explains the reason behind their ungrammaticality. Each bracketed clause in (36-38) is a binding domain, while reflexives are subject to principle A of the Binding Theory which requires reflexives to have an antecedent in an A-position in their binding domain. Thus the examples from Icelandic, Dutch, and Chinese (33-35) pose a problem for the Binding Theory. Now we ask: what is the difference between Arabic and these languages that underlies the contrast between (33-35) and (36-38)? One possible answer is that it looks as if something is not universal about the Binding Theory. The other possibility is that the difference between (normal) reflexives like *nafashu* and the so called L.D reflexives might be linked to different movement possibilities for these types of reflexive.

2- LD anaphors tend to be subject oriented

A subject-oriented anaphor can only have a subject as its antecedent. Arabic reflexives are not restricted to subject-orientation, as the following sentence shows:

(39) takalamtu maza zaydin; zan nafsih; ;

talked-I to Zayd about self him

‘I talked to Zayd about himself’

If we compare (39) with (33-35) we see that the reflexives in them are subject-oriented in the sense that, although they can have antecedents that are apparently outside their binding domain, these antecedents can only be subjects.

3- LD anaphora is restricted to reflexives, while reciprocals do not allow it.

Consider (40):

(40)\* Zij; lietem [mij voor elkaar; werken]

They made me for each other work

‘They<sub>i</sub> made me work for each other<sub>i</sub>’

(Dutch)

(cited in Koster and Reuland, 1991, 11)

As the indices show (40) is ungrammatical in exactly the same way as its Arabic version:

(41)\* jazala<sub>i</sub>ni a’zmalu likulin minhuma<sub>i</sub>

made-they me work for each other

‘They made me work for each other’

It seems that certain properties of reflexives allow them to escape their binding domain. The ungrammaticality of (40) and (41) can be explained by saying that the reciprocals fail to be bound in their binding domain, they do not satisfy principle A of the Binding Theory.

4- DL reflexives are morphologically simple.

This observation is noticed by Pica (1987). We note that LD reflexives in the examples (33-35) are all monomorphemic. They usually have a meaning comparable to ‘self’, rather than being complex in the way that Arabic reflexives are. Here also we see that, if this kind of morphological simplicity plays a role in allowing reflexives to be LD-bound, then we can see why Arabic lacks LD-reflexives: there is no ‘simple’ reflexive form *nafs* in Arabic that can stand alone.

Another point is that most of the languages which have LD reflexives that consist of the ‘self’ morpheme also have compounded reflexives that are morphologically much like Arabic reflexives. For example, Dutch has *zichzelf* (self’s self) alongside simple *zich*; Chinese has *tazij* (himself) as well as *ziji* (self). (see Koster and Reuland, 1991).

So it seems that the compound reflexives are typically not LD. This point can be illustrated through the following examples:

(42)\* Jon<sub>i</sub> segir að María elski sjalfan sig<sub>i</sub>

John says that Mary loves self's self

(Icelandic)

(43)\* Jan<sub>i</sub> liet mij voor zichzelf<sub>i</sub> werken

John let me for himself work

(Dutch)

(44)\* Zhangsan<sub>i</sub> renwei [Lisi hai-le ta-ziji<sub>\*i/j</sub>]

Zhang san (m.) think Lisi (f.) hurt { \*him/ her } self

(Chinese)

(cited in Koster and Reuland, 1991, 12)

Examples (42-44) show that LD-anaphora is a property which is restricted to morphologically simple reflexives. They also show that the ungrammaticality of the Arabic sentences like (36-38) is not really due to strange property of Arabic, but Arabic lacks LD reflexives because it does not have, as mentioned above, a morphologically simple reflexive *nafs*.

5- Outside the binding domain there is no complementarity with pronouns.

In fact this is what one would expect if LD anaphors can escape the binding domain. Consider:

(45) Jan<sub>i</sub> liet mij voor hem werken

John let me for him work

'John let me work for him'

(Dutch)

(46) Jon<sub>i</sub> segir að María elski hann<sub>i</sub>

John says that Mary loves him

(Icelandic)

Here we notice that pronouns are in complementary distribution with non-LD reflexives and that they are not in complementary distribution with LD reflexives. And as LD reflexives are possible in contexts like (33-35) and non-LD reflexives are not possible in this context, it is necessary to show that pronouns are possible here. Consider the Arabic example (47); and the Dutch and Icelandic examples (45), (46) cited in Koster and Reuland (1991):

(47) Zaydun<sub>i</sub> yaztaqidu anaka la tuazirhu<sub>i</sub>

‘ Zayd believes that you don’t help him’

(Arabic)

Examples (45), (46) and (47) show that the standard notions of binding domain and the standard versions of principles A and B of binding theory apply in Dutch, Icelandic and Arabic. They also show that LD reflexives, as seen in the examples (33-35), are outside the scope of principles A and B of the Binding Theory. So, it seems that this theory is not adequate enough to account for LD reflexives.

## 6- Conclusion

The study has shown that:

1. Binding Theory can handle adequately the facts of Arabic reflexives.
2. Considering the reflexives in Arabic as a compound word will help to capture the facts neatly.
3. Arabic lacks LD-reflexives because it does not have a morphologically simple reflexive *nafs*.
4. Binding Theory fails to account for the binding of LD-reflexives.



## Notes

\* I would like to thank Professor Majeed AL-Mashitta for commenting on an earlier version of this paper. Responsibility for shortcomings lies with me. I am also grateful to Dr. Abdullah AL-Jubouri for checking some of the Arabic examples.

1. König (1997) uses the term ‘intensifier’. In this study ‘emphatic’ is preferred because it is very close to the Arabic technical term ‘AL tawkeed’.
2. Positions which can be occupied by an argument, but not by a non-argument expression (e.g. not by an adjunct). In particular the term denotes a subject position, or a lexical complement position (see Radford, 2004: 322).
3. The morphological change is due to the preposition: Li.
4. A condition which specifies that two elements, the reflexive and its antecedent, must be in the same clause is often referred to as a clause-mate condition (see Haegeman, 1995: 208).
5. A clause whose predicate is not a verb (i.e. a verbless clause) is known as a small clause: hence, in ‘John considers [Mary intelligent]’ the bracketed expression is sometimes referred to as a small clause (see Radford, 2004: 328).
6. In an explanatory context it is possible to say ‘ana katabtu risalatan’.
7. The domain in which the reflexives must be bound by an antecedent. For binding, in general, and binding domain, in particular, see Haegeman, 1995: 205 ff; Haegeman and Guéron, 1999: 365-7, 376ff; Carnie, 2002: 92-3.

## References:

- Al-Galayini, M. (1976) Jamiz al durus al ʔrabiya, Vol.3, Beirut: AlMakktaba Al- ʔsriya.
- Carnie, A. (2002) Syntax: A Generative Introduction. Oxford: Blackwell Publishers.
- Chomsky, N. (1973) ‘Conditions on Transformations’, in S. Anderson and P. Kiparsky (eds.), A festschrift for Morris Halle. New York: Holt, Rinehart and Winston.
- Chomsky, N. (1981) 7<sup>th</sup> ed. Lectures on Government and Binding. New York: Mouton de Gruyter Publishers.
- Haegeman, L.(1995) An Introduction to Government and Binding Theory. Oxford: Blackwell Publishers.
- Haegeman, L. and J. Guéron (1999) English Grammar: A Generative Perspective. Oxford: Blackwell Publishers.
- Hassan, A. (1966) al-nahw al wafi. Tehran: Intisharat Nasr Khasraw
- Kayne, R. (1994) the Antisymmetry of Syntax. Cambridge, Mass: MIT Press.
- König, E. (1997) ‘Toward a Typology of Intensifiers’, paper presented on the 16<sup>th</sup> International Congress of Linguistics, Paris, July 1997.
- Koster, J. and E. Reuland (1991) Long Distance Anaphora. Cambridge: Cambridge University Press.
- Pica, P. (1987) ‘On the Nature of Reflexivization Cycle’ Proceedings of NELS 172: 483-9.
- Radford, A. (2004) English Syntax. Cambridge: Cambridge University Press.



