

Burzio's Generalization and Arabic Verbs

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1. Introduction

This paper incorporates a detailed examination of what has come to be known as *Burzio's Generalization* after Luigi Burzio's work of (1986) on Italian Syntax and purports to investigate how this generalization can be applied to data from Standard Arabic. We first review Burzio's generalization in section 2 , Section 3 deals with the generalization as it applies to Arabic declaratives and in Section 4 we examine the generalization with respect to two exclamative constructions in Standard Arabic. Section 5 sums up the findings of the paper regarding the application of Burzio's generalization to the data considered.

2. Burzio's Generalization

Burzio's(1986) generalization deals with the classification of verbs in accordance to how these verbs behave towards their arguments. He came to a general classification of verbs as in (1):

- (1) a. A verb which lacks an external argument fails to assign accusative case. (Burzio 1986: 178-9)
- b. A verb which fails to assign accusative case fails to theta-mark an external argument. (ibid: 184))

Burzio's generalization in (1) above gives a survey of three possible argument structure patterns of verbs: cf.

- (2)a. 1 2 b. 1 c. 2

A verb with the theta-grid in (2a) is traditionally known as a transitive verb: it has two arguments and assigns two theta-roles, e.g. *abandon*, which assigns the roles of AGENT and THEME, or *fear*, which assigns EXPERIENCER and THEME. Such a verb must be able to case-mark its complement NP. (2b) is the theta grid of an intransitive verb: it has only an external argument such as *work* which assigns the role AGENT. The d-structures and s-structures of clauses containing such intransitive verbs is as in (3a) and (3b):

- (3) a. $[_{IP} NP [_{I'} [_{VP} V]]]$
 b. $[_{IP} NP [_{I'} [_{VP} V]]]$

(3) shows that s-structure is isomorphic in relevant respects to d-structure. According to Burzio's generalization, these verbs could casemark a complement NP. Since these verbs lack an internal argument, they will not take an NP complement, though, and their casemarking potential will not need to be triggered.

The third class of verbs with the theta grid (2c) contains verbs which only have an internal argument. The most obvious examples of such verbs are passive verbs. As a result of passivization, the external argument becomes suppressed. The d-structure of clauses with this third class is as in (4):

- (4) $[_{IP} e [_{I'} [_{VP} VERB_{pass} NP]]]$

Following Burzio's generalization in (1), the verb in (4) cannot assign accusative case to its argument. This is in line with the general claim that passive verbs fail to assign structural case. At s-structure, the NP to which the internal theta role is assigned will have to move to the subject position to be casemarked.

- (5) $[_{IP} NP_i [_{I'} [_{VP} VERB t_i]]]]$

Verbs which lack an external argument and therefore cannot assign accusative case to their complement NP are referred to as *unaccusative* verbs. Notice, however, that this term is not restricted to passive verbs only. In Burzio's analysis the term *unaccusative* is used for passive verbs, raising verbs, and verbs of movement and change of state. One argument verbs like *sink*, *on the other hand*, are referred to as *ergative*.

3. Arabic Declarative Predicates & Burzio's Generalization

When Arabic is looked at with Burzio's generalization in mind, one might agree in principle that Arabic has similar verb classes to those postulated in Burzio's work. However, this statement needs more scrutiny. In the ensuing sub-sections we shall present examples from Arabic and endeavour to see whether Burzio's model can adequately account for the facts of Arabic verbs.

3.1 Burzio's Class One Verbs: Two Place Predicates

Let us begin by examining the first class of verbs represented in the theta grid in (2a) above. The Arabic transitive verbs *taraka* "abandon" and *xaafa* "fear" assign two theta roles each. The verb *taraka* assigns a THEME and an AGENT roles, while *xaafa* assigns an EXPERIENCER and a THEME. The d-structure representations of both verbs are as in (6a) and (6b) respectively:

- (6)a. [IP [I' [VP NP_{AGENT} [V' VERB [NP NP_{THEME}]]]]]
 b. [IP [I' [VP NP_{EXPERIENCER} [V' VERB [NP NP_{THEME}]]]]]
 c. *taraka zayd-un al-bayt-a.*
 left Zayd-nom. the-house-acc.
 "Zayd left the house."
 d. *xaafa al-9ajuuz-u al-bard-a.*
 feared the-old man-nom. the-cold-acc.
 "The old man feared the cold"

The examples in (6a) and (6b) show that the NPs assigned the AGENT and the EXPERIENCER theta-roles are external arguments and surface as subjects. The NPs assigned the THEME theta-roles are , on the other hand, internal arguments and surface as objects.

With the verb raising to INFL and the subject staying in Spec VP, we get the VSO surface forms in (6c) and (6d). SVO order can be obtained by virtue of raising the subject NP to Spec IP at s-structure, which obligatorily triggers verb agreement with the preverbal subject NP in person number and gender (cf. Mohammad ,1990).

3.2 Burzio's Class Two Verbs

Burzio's class two which has the theta grid in (2b) above can be represented by the Arabic verb *ya9mal* "work" which, like its English counterpart, assigns an AGENT theta-role. The d-structure of such a verb is as in (7), given the VP internal subject hypothesis of Koopman and Sportiche (1991):

(7) [IP [I' [VP NP [V' [V ya9mal]]]]]

The structure in (7) is identical to one of its s-structures in (8), namely (8a):

(8)a. [IP [I' [VP NP [V' [V ya9mal]]]]]

b. [IP NP [I' [VP [V' [V ya9mal]]]]]

(8a) represents a clause with a post-verbal subject with a VSO order, while (8b) shows the argument in the preverbal subjects position in an SVO word order.

3.3 Burzio's Class Three Verbs

The third class of verbs that Burzio postulates has the theta grid in (2c) above. As pointed out above, verbs that belong to this class are (i) passive verbs, (ii) raising verbs, (iii) verbs of movement, and (iv) verbs of change of state. Below is a brief discussion of these four sub-classes of verbs that aims to see whether such classification holds true of Arabic verbs.

3.3.1 The Passive:

An Arabic passive verb like *Duriba* "was hit", which as an active verb has the theta grid (2a), assigning an AGENT role to its external argument and a PATIENT role to its internal argument, has its internal argument suppressed so that the external argument position becomes available for the passive derived subject to move into. Thus, *Duriba* is represented at d-structure as in (9):

(9) [IP [I' [VP e [V' VERB_{pass} NP]]]]

Once the internal argument has moved into the passive subject position, we have the s-structure representation in (10a) with the verb moving into INFL for inflection and agreement giving (10b):

(10)a. [IP [I' [VP NP_i [V' VERB_{pass} t_i]]]

b. Duriba zayd-un

hit-pass Zayd-nom = "Zayd was hit"

c. Duriba.

hit-pass-3p.sg.masc = "He was hit"

From (4) and (5) for English, on one hand, and (9) and (10) for Arabic on the other, we note that the Arabic passive verb moves into Spec VP and may stay there as a post-verbal subject or move to Spec IP while the English passive subject moves into Spec IP. One other difference between Arabic and English resides in the fact that in Arabic the lexical subject may be dropped completely in the syntax and be replaced by an empty small *pro* subject while still being theta marked as THEME as in (10c).

3.3.2 Raising Predicates

Raising predicates in Arabic are exemplified by the verb *yabduu* "seem" which, as a raising predicate, requires only one argument that cannot be an NP but a clause with the IP or CP structure to which a THEME theta role is assigned. This argument is base-generated internal to the verb at d-structure as seen in (11a&b).

(11)a. [IP [I' [VP yabduu [IP zayd mariiD]]]]

b. [IP [I' [VP yabduu [CP [C 'anna [IP zayd mariiD]]]]]

At s-structure, as can be seen in (12a) below, the subject of the argument IP in (11a) has to raise to the matrix Spec position of IP to get NOMINATIVE case while the predicate AP gets ACCUSATIVE case in-situ. On the other hand, as (12b) below shows, at s-structure the matrix subject position of the clause remains empty because the subject NP of the lower IP *Zayd* can get ACCUSATIVE case from the complementizer 'anna. The matrix subject has no theta role assigned to it. It probably has

no case because it is not lexical. Thus, the matrix subject can be realised as an expletive subject.

(12)a. [_{IP} zayd-un_i [_{I'} [_{VP} yabduu [_{IP} t_i mariiD-an]]]]

b. [_{IP} [_{I'} [_{VP} yabduu [_{CP} [_C 'anna [_{IP} zayd-an mariiD-un]]]]]]

(13)a. zayd-un yabduu mariiD-an.

Zayd-nom seems sick-acc.= "Zayd seems to be sick"

b. yabduu 'anna zayd-an mariiD-un.

seems that Zayd-acc. sick-nom.= "It seems that Zayd is sick"

(12a) above results in the surface form (13a) while (12b) results in (13b). In the case of (12a) there is an alternative Spec position for the subject of the lower IP to move into. This gives rise to an alternative s-structure as in (14a) below where the subject in question moves into Spec VP and remains there to give the VSO order in Arabic when the matrix V moves into INFL as seen in the surface form (14b).

(14)a. [_{IP} [_{I'} yabduu [_{VP} zayd-un_i [_{V'} [_{IP} t_i mariiD-an]]]]]]

b. yabduu zayd-un mariiD-an.

seems Zayd-nom. sick-acc.= "Zayd seems sick"

It should be pointed out in this context that the NP *Zayd* cannot be base-generated in Spec VP in (14) above due to the fact that it comes from the argument structure of the verb *yabduu* "seem", which will not be able to theta mark the NP *Zayd* if it were base generated under Spec VP.

3.3.3 Verbs of Movement

Verbs of movement such as *jaa'a* "come", *dhahaba* "go", *waqafa* "stop", *taHarraka* "move" and *jalasa* "sit" are all predicates that assign one theta role to one argument that they select. This theta role is the AGENT role. Their d-structure thus is one that places the argument NP in preverbal position as seen in (15a) below while s-structure just copies what d-structure does with no change in the position of the argument when the verb raises to INFL to get inflection and VSO order as seen in (15b) and (15c) respectively:

(15)a. [_{IP} [_{I'} [_{VP} NP_{AGENT} [_{V'} VERB]]]]]

b. [_{IP} [_{I'} [_{VP} NP_{AGENT} [_{V'} VERB]]]]]

c. *jaa'a zayd-un.*

came Zayd-nom = “Zayd came”

SVO is also possible in Arabic. This will be derived by moving the subject NP *Zayd* to Spec IP in (15b) above from Spec VP to Spec IP which gives the alternative s-structure (16a) and hence the surface form (16b):

- (16)a. [IP NP_{AGENT} [I' [VP t_i [V' VERB]]]]
 b. zayd-un jaa'a.
 Zayd-nom. came-3p.sg.masc.past = “Zayd came”

This movement puts the subject in a Spec head position with the subject which is now in INFL. This position of the subject allows/requires it to agree with the verb in Arabic.

3.3.4 Verbs of Change of State

This class of verbs is represented in English by a group such as *die*, *grow*, *emerge*, *begin*, *follow*, *occur* and *exist*. In Burzio's classification these verbs belong to class three which assigns only one theta role to only one argument. This argument is usually denoted the affected NP, i.e., a THEME. Corresponding Arabic verbs are : *maata* “die”, *namaa* “grow”, *Dhahara* “emerge”, *bada'a* “begin”, *talaa* “follow”, *Hadatha* “happen”, and *wujida* “exist”. As one argument verbs, these verbs have the d-structure in (17a) :

- (17)a. [IP [I' [VP [V' maata [NP_{THEME}]]]]]
 b. [IP [I' maata [VP NP_i [V' [t_i]]]]]
 c. [IP NP_i [I' maata [VP [V' [t_i]]]]]

Since the only argument they assign is THEME and that THEMES are usually internal arguments, as shown by (17a) above , the argument NP of a verb like *maata* “die” is to be generated as a d-structure direct object. As (17b) shows, lacking an external argument, the verb cannot assign accusative case to its theta-marked direct object position, the theme NP has to move to Spec VP to get case and give the VSO order once the verb moves to INFL. The alternative position to move to is Spec IP as seen in (17c) above, which results in the second possible SVO order in the language. The structures in (17b,c) correspond to the surface formes in (18) respectively:

- (18)a. maata zayd-un.
 died Zayd-nom. = "Zayd died."
 b. zayd-un maata.
 Zayd-nom. Died = "Zayd died"

The difference between (18a) and (18b) is that in the latter where the subject is preverbal subject verb agreement is obligatory whereas in the former, i.e., (18a), subject verb agreement leads to ungrammaticality.

4. Exclamative Predicates

Arabic also has two types of verbal predicates that are traditionally known as ma-exclamative and imperative-exclamative. The first one is known as such because it is introduced by a particle, namely *ma*. The verb form is morphologically identical to a third person masculine singular past tense declarative form. The second is known by this name because it resembles the singular masculine imperative verb form. Both forms are derived from tri-consonantal roots denoting a gradable property of a person or a thing that constitutes the focus at which the exclamation is made. These two constructions are exemplified in (19a) and (19b) respectively:

- (19)a. ma 'akrama zayd-an!
 be-generous-EXCL. Zayd-acc
 "How generous Zayd is!"
 b. 'akrim bi-zayd-in!
 be-generous-EXCL. upon-Zayd-gen.
 "How generous Zayd is!"

The verb form in (19a) will be referred to as the 'af9ala form and the one in (19b) as the 'af9il form. Below is a brief discussion of the two forms.

4.1 The 'af9ala form

Al-Seghayar (forthcoming), argues for an analysis of the construction in (19a) above, which treats the verb form *'akrama* as a special exclamative

verb form. This verb is a one place predicate which selects a theme argument which surfaces as an object and is assigned accusative case directly by the governing verb which also theta-marks it. Under this analysis and in contradistinction to the first part of Burzio's generalization in (1) above, this verb form assigns accusative case to an internal argument that it chooses without having to have an external argument. The analysis proposed provides an argument for having an empty expletive that is not theta-marked, as shown in (20):

(20)a. [CP [C' [C ma [IP [I' [I [VP [V' [V 'akrama [NP zayd]]]]]]]]]]]

D-structure

b. [CP [C' [C ma [IP Pro_{expl.} [I' [I [VP [V' [V 'akrama [NP zayd-an]]]]]]]]]]] . S-structure structure

c. ma 'akrama zayd-an!

ma be-generous-EXCL. Zayd-acc.

"How generous Zayd is!"

The subject is licensed by the head of the clause INFL and identified by the weak agreement features comprising of default third person singular masculine features to which the verb can not move neither overtly at s-structure nor covertly at LF. The expletive pro subject is also required by the projection principle as shown in Chomsky (19--), and Haegeman (1991) among others.

4.2 The 'af9il form

The analysis proposed in Al-Seghayar (under preparation), chapter 4, for the verb form 'akrim in (19b) is one which assigns it the same analysis as for the one in ma-exclamative at the argument structure level. This means that 'akrim in (19b) is a one place predicate which has one internal argument projected to d-structure as the direct object of the verb. However, the verb in this case is not able to case-mark its d-structure object NP. This verb like the verb in (19a) has no theta role to assign to an external argument. The verb's inability to assign case to the object NP, and the impossibility of that NP getting case in situ or out by moving into a case-marked position, necessitates that a case assigner is inserted at s-structure to case-mark the object NP resulting in the grammatical surface form. This analysis also makes room for an expletive subject due to the lack of a thematic one, as shown in (21):

- (21)a. [IP [I [I [VP [V' [V 'akrim [NP zayd]]]]]]] D-structure
 b. [IP Pro_{expl.} [I [I [VP [V' [V 'akrama [PP bi- [NP zayd-in]]]]]]]]] S-structure
 c. 'akrim bi-zayd-in!
 be-generous-EXCL. upon-Zayd-gen.
 "How generous Zayd is!"

The same thing that we can say about the expletive pronominal subject of *ma*-exclamatives can also be said about the expletive subject in this type of exclamative construction regarding licensing and identification. We refer to this construction as the 'imperative exclamative'. The agreement features in INFL in this construction differ only in the person feature. Since third person is not compatible with the imperative morphology that the verb in this construction assumes, second person replaces third person in *ma*-exclamative once the exclamative construction is an imperative exclamative. Another difference between the two expletive subjects is that in *ma*-exclamatives this subject is preceded by *ma* whereas in imperative exclamatives it is not.

4.3 The Extended Projection Principle and Arabic Exclamatives

There seems to be some general agreement that specifiers are generally optional, in the sense that it is possible to have a category which does not have a specifier. However, IP seems to be an exception to this general property. Consider the following data:

- (22)a. Mary seems to have solved the problem
 b. Maryi seems [ti to have solved the problem]
 (23) a. ei seems that Mary has solved the problem
 b. It seems that Mary has solved the problem.

The derivation of the raising construction in (22a,b) involves movement of the subject NP *Mary* from the subject position of the non-finite embedded clause to the subject position of the root clause. This movement can not apply in (23) because the embedded clause is tensed/finite. In this example *Mary* remains in the subject position of the embedded clause, and the subject position of the root clause is obligatorily filled with the 'semantically empty' NP *it*.

The reason why the ‘semantically empty’ proform *it* should be obligatory in (23a) is that its presence is forced by some condition of the grammar which requires the spec position of IP (i.e. the subject of the sentence) to be filled. The obligatory presence of a ‘semantically empty’ element in the Spec position of IP in the absence of a ‘meaningful’ subject can also be seen in other constructions such as:

- (24)a. A unicorn is in the garden.
 b. *e* is a unicorn in the garden
 c. There is a unicorn in the garden

Like the expletive *it* the element *there* is also ‘semantically empty’ as shown by the fact that its absence in (24a) or its presence in (24c) has no effect on the meaning of the sentence. In (24a) the NP *a unicorn* occupies the subject position (i.e. Spec IP), whereas in (24c) it doesn’t. In the latter example the subject position is obligatorily filled with *there*. Here again one may ask why the presence of this element is obligatory despite the fact that it is ‘semantically empty’. The answer is likely to be the same as above. Its presence seems to be required by some formal requirement of the grammar on Spec IP. This formal requirement in question is called **the extended projection principle (EPP)**, and is sometimes defined as in (25):

- (25) Extended Projection principle
 Clauses must have a subject (Ouhalla (1994))

Exclamative clauses in Arabic seem to be no exception to this principle and hence they must have a subject. The question is what can this subject be like in the *ma ‘af9ala* and the *‘af9il* types represented in (19) above, which we repeat here for convenience as (26):

- (26) a. *ma ‘akrama zayd-an!*
 be-generous-EXCL. Zayd-acc.
 “How generous Zayd is!”
 b. *‘akrim bi-zayd-in!*
 be-generous-EXCL. upon-Zayd-gen.
 “How generous Zayd is!”

Some traditional Arab grammarians maintain that *ma* in (26a) is the subject, which is at the same time an exclamative particle. This claim would make *ma* part of the IP (i.e. in Spec IP), which will not go with the

claim that it is base-generated under C. If *ma* is in Spec IP, it would have to agree with the verb '*akrama*', which cannot be the case because *ma* does not carry any morphological reflection of this agreement. The solution, suggested by Al-Seghayar (1977), is to claim that *ma* is in C. we would postulate an empty expletive *pro* as a subject of the clause. Arabic as a pro-drop language can accommodate this assumption and endorse it as a solution to the otherwise violation of the EPP.

The same assumption (i.e. of an expletive pro-subject) is also possible with the second type of exclamative in order to preserve its clausehood status as an IP. The fact that the verb is not changeable in terms of inflection also supports its having an expletive subject. Expletive *pro* in Arabic declaratives can also be found in constructions such as (cf. Mohammad (1990)):

(27)a. *yajibu* 'an na9mala
must that we work
"We must work"

b. [_{IP} *pro*_{expl.} *yajibu* ['an na9mala]]
it must that we work
" We must work."

(28)a. *yabduu* 'anna zayd-an ya9malu
seem that Zayd-acc. work
"Zayd seems to be working"

b. [_{IP} *pro*_{expl.} [_Γ [_I [_{VP} [_V [_v *yabduu* ['anna zayd-an ya9malu]]]]]
it seem that Zayd-acc. Work
"Zayd seems to be working"

Both verbs in (17b) and (28b) have an expletive subject and the verbs *yajibu* and *yabduu* in this order keep the same form and don't inflect for person, number and gender.

5. Conclusion

This paper set off to consider Burzio's generalisation with respect to Standard Arabic. It was found that while in some Arabic predicates the facts were in confirmation with the generalisation, some predicates, such

as the exclamative predicates, the evidence showed otherwise. This is, as shown in Al-Seghayar (1997), due to the peculiar characteristics of the exclamative predicate. These characteristics have to do with the argument structure of the exclamative predicate and its interaction with other general principles of the grammar like the Extended Projection Principle which conspire to make such construction both syntactically and semantically special. The theoretical framework within which the paper is written was the Chomsky's principles and parameters version of transformational grammar.

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References

- Al-Seghayar, M. S. (1988) *On The Syntax of Small Clauses in Arabic*, M.A Thesis, University of Ottawa.
- _____ (1995) "Wh-movement, Topicalization, and Left Dislocation in Arabic Exclamatives", Paper presented at the Postgraduate Linguistics Conference, University of Manchester.
- _____ (1995) "Imperative Exclamatives" Paper presented at the First Annual Linguistics Postgraduate Day, , University of Essex.
- _____ (1997) "Remarks on the Types of Complementizers in Arabic"
Essex Graduate Student Papers in Language and Linguistics,
Vol. 1,
- _____ (1997) *The Syntax of Exclamatives: A Study of Arabic*, Ph.D. Dissertation, University of Essex.
- Burzio, (1986) *Italian Syntax*, Riedel, Dordrecht.

- Fassi Fehri, A. (1993) *The Structure of Arabic Clauses and Words*, Kluwer Academic Publishers, Dordrecht, Boston, London.
- Haegeman, L. (1991) *Introduction to Government and Binding Theory*, Blackwell, Oxford UK, Cambridge USA.
- Koopman, H. & Sportiche, D. (1991) "The Position of Subjects" *Lingua*, Vol. 85, PP. 211-259.
- Mohammad, M. A (1990) "The Problem of Subject-Verb Agreement" in Mushira Eid (ed.) *Perspectives on Arabic Linguistics, I*, pp. 95-125, John Benjamins Publishing Co., Amsterdam.
- Ouhalla, Jamal (1994) *Introducing Transformational Grammar: From Rules to Principles and Parameters*, London: Edward Arnold.
- Wright, W. (1979) *A Grammar of the Arabic Language*, Cambridge, CUP.