Case and Word Order Alternation in Standard Arabic: An Optimality Theoretic Account

Mousa A. Btoosh
Fahad Bin Sultan University, KSA

This study aims to expound on case licensing and word order alternation in Standard Arabic within the optimality theory framework. To these ends, pre- and post-verbal DPs in both SV and VS word orders, along with DPs in verbless sentences and in isolation have been considered. Findings reveal, among other things, that NOM, which is the default case in Standard Arabic, is assigned to all DPs in isolation and verbless sentences, and to preverbal DPs in SV patterns. This study also purports that DPs in SV orders are base-generated in Spec TP while they are base-generated in Spec VP in VS patterns. Accordingly, the SV structure is not derived from the VS pattern by A-movement. Rather, they are derived from two distinct patterns as the movement of the preverbal DPs in SV order is incompatible with the A-movement analysis.

Keywords: *Case, word order, topic, Arabic, constraints*

1. Introduction

Language variation is manifested in different aspects, including the asymmetry in word order patterns. Research on word order typology has shown that some languages follow a restrictive word order scheme while others allow more flexibility. Siewierska (1988: 8) illustrates that the basic word order is found in stylistically neutral, independent, indicative clauses with full noun phrase (NP) participants, where the subject is definite, agentive and human, the object is a definite semantic patient, and the verb represents an action, not a state or an event. Languages in which the word order is changed without alternating the semantic component of the sentence are called 'flexible' or 'free word order' languages; flexible languages, in general, are morphologically rich as the semantic component is preserved by means of inflections rather than by linear word order. Yet, word order alternation is sometimes quite misleading. For Dryer (2005), flexibility in word order languages is sometimes misleading since there are often pragmatic factors governing the choice of word order.

Moravcsik (2006) points out that the ultimate goal of the word order theory is to find the right properties that determine the linear asymmetry between constituents. A close look at the literature shows that recent and contemporary studies on linear word order originated with Greenberg's attempt in 1963. This attempt has been followed by several subsequent, but more comprehensive studies.

Criticizing the non-representativeness of the data in previous research on word order typology, Tomlin (1986) conducted a survey of the linear order in a representative sample consisting of 402 languages. Results show that SOV and SVO are the most frequent patterns, occupying 44.78% and 41.79%, respectively. VSO languages form only 9.20% while all other languages that make use of VOS, OVS, and OSV patterns form less than 5% of the entire sample.

In spite of the differences arrived at in the previous studies devoted to word or constituent order, most of such studies share significant conclusions. For instance, SOV and SVO are the most frequent occurring patterns irrespective of the representativeness notion of the corpora. Yet, contemporary research on linear order has tackled the subject from different perspectives. Perhaps accounting for the non-uniformity among languages in terms of word order patterns is not as challenging as the accounting for the asymmetry in word order in languages where constituents may surface in various orders such as Standard Arabic.

2. Word order in Standard Arabic

2.1 *A transformational account*

Research on constituents order in Standard Arabic (SA, henceforth), the oldest form of Arabic codified and recorded by Arab grammarians and philologists in the first centuries of the Islamic empire, has explicitly shown that VSO is the unmarked word order in this variety. In addition to being a richly inflected variety where mood, case, number, and gender and all grammatical functions are marked by short vowels, SA distinguishes between three numbers (singular, dual and plural) and is almost completely uniform across the Arab world (Zughoul 1980).

Besides the lexical and morphological differences, SA distinguishes itself from other local varieties of Arabic (Jordanian, Egyptian, Lebanese, etc.) in the basic word order and agreement. However, while the basic word order in SA is VSO, SVO is the unmarked word order in all other local varieties. Still, it is important to mention that SA and other local Arabic varieties allow the basic word order of the other, and both orders are equally acceptable.

With regard to sentence types, literature on SA syntax shows that two types of sentences surface in this variety, namely, nominal and verbal sentences. Nevertheless, traditional Arabic linguists expressed divergent opinions concerning nominal and verbal sentences. Basri grammarians argue that a nominal sentence begins with a noun while a verbal sentence begins with a verb. Kufi grammarians, on the other hand, argue that a verbal sentence is the one that contains a verb irrespective of its position in the sentence.

Among the generalizations arrived at in the elaboration of the Government and Binding and Principles and Parameters theories was the assumption that SVO is the underlying configuration in SA. Fassi Fehri (1993: 16) presents the canonical phrase structure of SA as shown in Figure (1).

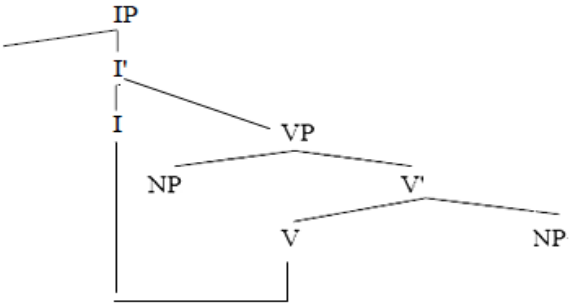

Figure 1: Canonical Phrase Structure in Arabic

Drawing on this canonical structure, it is rather apparent that the subject is generated in Spec VP. A survey of the literature devoted to word order in SA shows that most of the recent accounts state that VSO, the unmarked order in SA, is derived by raising the verb to I or T. SV order, on the other hand, is derived by V-to-I/T movement and Spec VP to Spec TP/Spec IP movement (Fassi Fehri, 1993; Koopman and Sportiche, 1991; Belnap & Haeri 1997; Btoosh, 2011; Benmamoun 2000; Tamari, 2001, Saidat, 2006 to name but a few). These assumptions are not unprecedented in the GB literature. Emonds (1980) and Sproat (1985) argue that VSO word order languages are derived from the SVO order. It is also worth noting that verb movement to T or I and subject raising to Spec TP conform to the Universal Grammar constraints as the *verb* and *subject* qualify as suitable candidates for movement and *T/I* and *Spec TP* qualify as suitable landing sites. Accordingly, the subject in SA can be either preverbal or post-verbal as shown in Figures (2) and (3), respectively.

(1)

?akal-a	Aḥmad-un	t-tufaaḥat-a
ate-3SG.MAS	Aḥmad-NOM	the apple-ACC

'Aḥmad ate the apple.'

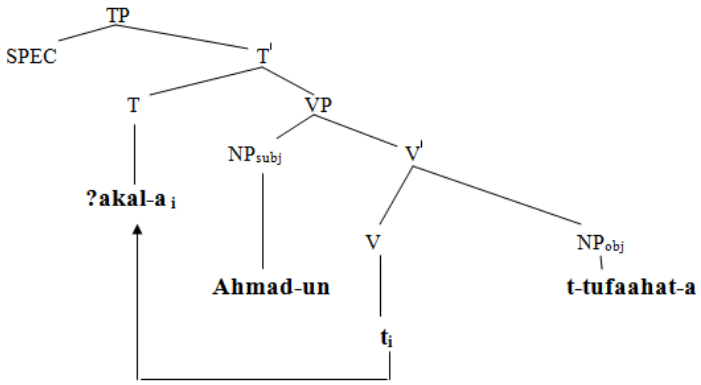

Figure 2: V-to-T movement

(2)

Aḥmad-un	?akal-a	t-tufaaḥat-a
Aḥmad-NOM	ate-3SG.MAS	the apple-ACC

'Aḥmad ate the apple.'

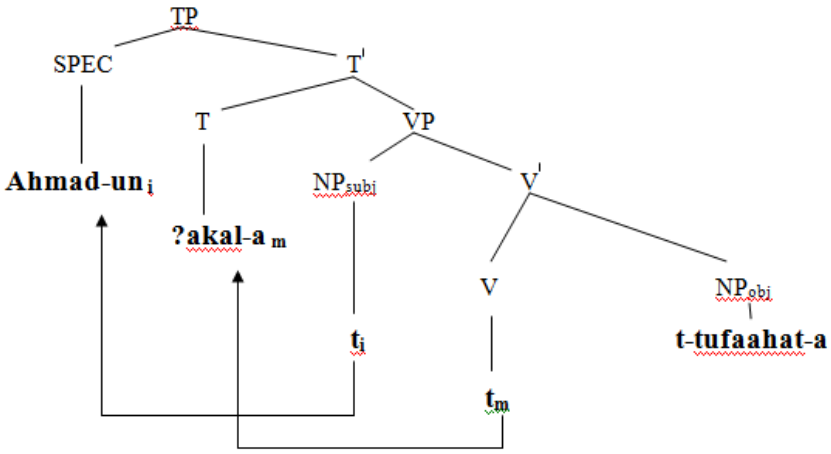

Figure 3: NP_{subj} movement in SVO sentences

Beyond the mere fact of surface variation in word order, the examples below show similarities between SV and VS patterns in terms of subject-verb agreement in gender, person and number except for the third person in VS order where agreement just features in person and gender.

(3) a. ?ana ?askun-u fi haadhi al-ghurfat-i (agreement in gender, number and person)
I live-1SG in this room-DAT
'I live in this room'

b. ?askun-u ?ana fi haadhi al-ghurfat-i (agreement in gender, number and person)
live-1SG I in this room-DAT
'I live in this room'

c. naskun-u naḥn-u fi haadhi al-ghurfat-i (agreement in gender, number and person)
live-1PL we in this room-DAT
'We live in this room'

d. ?uskun ?ant-a fi haadhi al-ghurfat-i (agreement in gender, number and person)
live.2SG.IMP you-2SG in this room-DAT
'You live in this room'

e. ?uskun-aa ?ant-umaa fi haadhi al-ghurfat-i (agreement in gender, number and person)
live-2DUAL.IMP you 2DUAL.MAS in this room-DAT
'(You) live in this room'

f. ?antum ?uskun-u fi haadhi al-ghurfat-i (agreement in gender, number and person)
you-2pl.mas live-2.pl.mas in this room
'You live in this room'

g. gara'a-a l-?awlaad-u 1-kitaab-a (agreement in gender and person)
read-3SG.MAS the boys-NOM the book-ACC
'The boys read the book'

h. ?al ?awalaad-u gara'-u 1-kitaab-a (agreement in gender, number and person)

the boys-NOM read-3PL.MAS the book-ACC

'The boys read the book.'

i. *gara'-u l ?awalaad-u 1-kitaab-a (agreement in gender, number and person)
read-3PL.MAS the boys-NOM the book-ACC

'The boys read the book.'

j. gara'-at 1-banaat-u 1-kitaab-a (agreement in gender and person)
read-3SG.F the girls-NOM the book-ACC

'The girls read the book.'

k. ?al banaat-u gara'n-a 1-kitaab-a (agreement in gender, number and person)
the girls-NOM read-3.PL.F the book-ACC

'The girls read the book.'

It is apparent from the examples above that agreement in SA takes place either partially or fully depending on the person and the position of the subject with respect to the verb. The verb in SV and VS orders agree with the pre- and postverbal DPs in gender, person and number as in (3a-f), (3h) and (3k) while it agrees with post-verbal DP (in VS order) just in gender and person as in (3g) and (3j). Yet, the lack of agreement between the subject and the verb in terms of number is restricted to the 3rd person subjects. Note that the ill-formedness of (3i) is attributed to agreement between the head and the post-verbal subject in number. Benmamoun (1992) illustrates that the partial agreement between the subject and verb in VS order takes place under government configuration while the full agreement in SV order takes place under Spec-head configuration.

In principle, the verb in VS order, which is not in a full agreement with the following argument, displays the third person features. This property was the reason underlying the assumption of the existence of an expletive *pro* in Spec IP in VS order. What is suggested in Benmamoun (1992) is no different from Ouhala (1994) regarding the existence of a null expletive in Spec, IP in VS order; this expletive is specified for gender and gets its value via coindexation with the post-verbal subject. The preverbal DP in SV order is assigned nominative case by raising to Spec, IP and receives nominative case via spec-head agreement.

A further explanatory attempt to account for VSO and SVO word order variation in SA is found in Bolotin (1995: 20). Variations between the two patterns are attributed to a set of inflectional parameters in which only Agr changes, Bolotin explains.

(4)

	VSO order	SVO order
V features of T	strong	strong
V features of Agr	weak	strong
N features of T	weak	weak
N features of Agr	weak	strong

Building on these parameters, SA verbs always raise to T since the verbal features in VSO and SVO word orders are strong. However, verbs of only SVO sentences raise to Agr to get their strong

verbal features checked off. The subject, which remains in-situ in VS order, raises to Spec AgrP only in SVO order.

Attributing variation to EPP satisfaction, Mahfoudhi (2002) argues that "the difference between the SVO and VSO word orders is due to the difference in the choice of the element that moves to satisfy the EPP feature." (p.19). Following Alexiadou and Anagnosopoulou (1998), Mahfoudhi argues that the verb in the pro-drop languages can check the EPP feature because it has a very rich morphology, which, in turn, allows it to stand without the subject in a sentence.

While the verb always raises to T in both VSO and SVO orders (Benmamoun, 2000; Mohammad, 2000; Fakih, 2006, among others), the subject remains in-situ in VSO and raises to SPEC TP in SVO (Chomsky, 1995).

2.2 *A non-transformational account*

Word order alternation in SA has remained a controversial issue since the eighth century. A fundamental question that has been frequently faced by Arabic grammarians is whether SVO is derived from the unmarked pattern VSO or they are two distinct patterns. An observation that has been made time and again on the free alternation in word order in the recent literature on SA is the existence of the basic word order (VSO) and the derived one (SVO). This idea embodies the basic tenet of the Transformational Grammar, which has been dominating the linguistic scene for several decades.

As will be detailed below, some recent studies have pushed to the fore a new but deeply rooted challenging assumption which undermines the previous transformational accounts. Based on this assumption, SVO and VSO orders in SA are two distinct patterns (Jelinek, 1984; Demirdache, 1989; Plunkett, 1993; Akkal, 1996; Ouhalla, 1997; Soltan, 2007; Al-Balushi 2011, among others). As such, SVO isn't derived from the VSO by A-movement. Rather, they are derived from two distinct patterns at the underlying structure as shown in (5) (Soltan, 2007).

(5)

a. SV order: [T_{op}P DP Top [TP T [*v*P *pro* V…]]]

b. VS order: [TP T [*v*P *DP* V…]]

Under the analysis, a preverbal DP in the SV order is base-generated in TP as a dislocated element in the left periphery of the clause (Left-Dislocation). Support to the notion of left-dislocation also comes from the literature on other pro-drop languages such as Greek, Spanish and Portuguese (Alexiadou and Anagnostopoulou, Ordonez and Trevino, 1999; Barbosa, 2000, among others). Soltan (2007) presents numerous examples in support of his arguments that post-verbal DPs are canonical subjects while preverbal DPs fit the syntactic and semantic properties associated with topics. According to Soltan, the SV order always involves a *pro* subject under this analysis. So, full agreement is always required for *pro* identification.

It is worth mentioning that the two schools that dominated research on Arabic linguistics during the dawn of Islam, namely Basra and Kufa schools, expressed divergent views concerning

this very issue. Kufi grammarians believe that preverbal DPs are subjects. Basri grammarians, on the other hand, argue that while preverbal DPs are topics, post-verbal DPs are subjects.

As far as case is concerned, Fassi Fehri (1993) and Soltan (2007) postulate that preverbal DPs appear with nominative case only in the absence of a case assigner while post-verbal DPs uniformly appear with nominative case. A clear demonstration of this comes from the examples (6c-d) where the default case is overwritten when the DP becomes in scope of a new case assigner.

(6)

a. shariba l-ʔawlaad-u l-ḥalib -a

drank 3SG.MAS the-boys-NOM the-milk- ACC

'The boys drank the milk.'

b. ʔal-ʔawlaad-u sharib-uu l-ḥalib-a

the-boys-NOM drank 3PL.MAS the-milk-ACC

'The boys drank the milk.'

c. ʔinna l-ʔawlaad-a sharib-uu l-ḥalib-a

C the-boys-ACC drank 3PL.MAS the-milk- ACC

'I affirm that the boys drank the milk.'

d. hasiba Zayd-un l-ʔawlaad-a raḥal-u
believed Zaydun-NOM the-boys- ACC left-3PL.MAS

'Zayd believed that the boys left'

At this point, it is worth drawing attention to the fact that the complementiser *ʔinna* assigns accusative case to the topic while the complement/predicate remains nominative. Soltan argues convincingly that preverbal DPs are not the result of A-movement as this proposition faces two challenging facts. First, the movement of the post-verbal DP to [Spec, TP] is not triggered by case as NP-Movement is always from a position in which a theta role is assigned but no abstract case, and to a position in which abstract case is assigned but no theta role. Second, case overwriting, whereby an accusative case is assigned to the subject by the complementizer as shown in (6c), is, according to Soltan, incompatible with the case theory. However, this argument is not well-grounded as 'case overwriting' seems to be quite compatible with the literature on case assignment (Burzio, 2000). (6d) presents another concrete piece of evidence in support of this argument. That is, post-verbal DPs uniformly appear with nominative case while preverbal DPs appear with nominative case only in the absence of a case assigner.

Indefinite nonspecific DPs pose another challenge for the A-movement analysis (Fassi Fehri, 1993; Soltan, 2007; among others). The examples in (7) show that indefinite nonspecific DPs, which cannot occur preverbally, are grammatical post-verbally.

(7) a. *rajul-un ʔakal-a t-tufaahat-a
man-NOM ate 3SG.MAS the-apple-ACC
'A man ate the apple.'

b. ʔakal-a rajul-un t-tufaahat-a
ate 3SG.MAS man- NOM the-apple-ACC
'A man ate the apple.'

Note that (7a) would have been grammatical if the DP in the preverbal position had been obtained as a result of A-movement (from the post-verbal position). This example presents some restrictions on movement in this variety. As such, indefinite non-specific DPs cannot undergo A-movement.

Another argument in favor of the distinct underlying structures of SVO and VSO patterns stems from the difference in their interaction with wh-movement; the extraction is allowed across a post-verbal DP but disallowed across a preverbal DP. Al Balushi (2011) attributes the grammatically of (8a) and ungrammatically of (8b) to the fact that the post-verbal DP is in an A-position, whereas the preverbal DP is in an A-bar position. This is why wh-movement is blocked in (8b).

(8) a. man ra'a-Ø Adel-un
who PST.see.3SG.MAS-IND Adel-NOM
'Who did Adel see?'

b. *man Adel-un ra?a-Ø
who Adel-NOM PST.see.3SG.MAS-IND
'Who did Adel see?'

Yet, if a resumptive pronoun occurs in an object position, the order Wh-DP-V becomes possible. This, of course, signals the absence of A'-movement operation in this structure.

(9) man Adel-un ra?a-hu
who Adel-NOM PST.saw.3SG.MAS-him
'Who did Adel see (him)?'

Over resumption evidences that SV order is the result of a base-generated left dislocation structure. According to Soltan (2007), a resumptive pronoun in postverbal position is forced to appear when the experiencer appears preverbally as shown in (10).

(10) yaʒib-u ʿala Zayd-in ʔal-ra ḥiil-u
must-3SG.MAS on Zayd-DAT the-leaving-NOM
'Zayd has to leave.'

When the experiencer DP "Zayd" appears preverbally, an overt resumptive pronoun has to appear cliticized onto the preposition within the PP:

(11) Zayd-un yaʒib-u ʿalay-**hi** ʔal-raḥiil-u
Zayd-NOM must-3SG.MAS on-him the-leaving-NOM
'Zayd, he has to leave.'

Based on the evidence presented above, the sentence in (11) is considered an LD structure, where a resumptive pronoun in the thematic domain is associated with the peripheral DP.

3. Case licensing

3.1 *Case in Government and Binding Theory*

Though the concern with case could be traced to the medieval period, the interest in case in recent literature dates back to the publication of Chomsky and Lasnik's article on 'Filters and Control' in 1977. Inspired by the arguments raised by Vergnaud's (1977), (Chomsky, 1981) proposed a constraint banning a visible NP from surfacing unless it occupies a case position.

(12) Case Filter: *NP if NP has phonetic content and has no case.

Case Filter applies to all overt NPs even those that don't display morphological cases. Chomsky (1981, 1995, and 2000) considers abstract case not only as a universal syntactic feature but also as a prerequisite for structural morphological case. Yet, even languages with morphological case marking do have full systems of abstract case. Case assignment within the GB framework, is defined in terms of case assigners and the configurational relationship of the case assigners and the NPs to which they assign case.

- P and V (assign ACCusative case)
- Finite INFL (assigns NOMinative case), and
- A and N (which under one analysis assign inherent GENitive case).

It is rather obvious that only heads (i.e., lexical categories and finite INFL) can assign case (Haegeman, 1994). Spec-head and head-complement are the two primary configurations for licensing agreement features on verbs and case features on NPs, respectively.

Unlike structural case, inherent case is defined in terms of thematic relations between case assigners and case assignees. Genitive and dative are considered typical types of inherent case whereas nominative and accusative are typical types of structural case. In order to account for the case assignment in VSO languages, the (I)NFL is assumed to govern the DP subject in Spec VP. DPs which don't receive inherent case at D-structure receive structural case at the S-structure.

In addition to the two above-mentioned configurations for case assignment, linguists have pushed to the fore the ECM structure. That is, certain verbs such as 'believe' have an exceptional

capacity to govern the embedded subject position of their infinitival complement (Exceptional Case Marking). Yet, for some other researchers (i.e. Postal, 1974) this configuration involves raising to object position (Subject-Object Raising). There are thus three configurations for case assignment:

- Spec, Head: I° - NP (=subject)
- Head-Complement: V° - NP Complement (=object)
- Head – Spec of complement (= ECM, subject of embedded clause)/Subject-Object Raising

3.2 *Case in Minimalist Program*

The early 1990s witnessed the evolvement of the Minimalist Program where the case assignment and case assigners were replaced by the checking notion. Driven by eliminating the complications of the government notion and the asymmetry in case assignment configurations, Chomsky (1993) lays the basis for a universal uniform theory of agreement and case assignment.

Lexical items, within the Minimalist Program, enter the computation as sets of features (from a lexical array known as numeration). DPs enter the derivation fully inflected for case and agreement features. During the syntactic computation, some of these features require feature checking, establishing relations with other features. Therefore, DPs must be checked during the derivation process against a corresponding feature borne by another element within a prescribed checking configuration. In consonance with the checking theory, every lexical item has head features and might have specifier and complement features. Accordingly, lexical heads have their own features and require that the head features of specifier and complement be checked by the specifiers and complements, respectively.

Chomsky (1993) argues that the abstract case is the manifestation of agreement between a functional head and its specifier. According to this argument, the subject raises to AgrSP and the object raises to AgrOP. AgrSP and AgrOP provide positions for NOM and ACC cases to be checked, respectively. Still, both Agr–based theory proposed in Chomsky (1993) and the Split-INFL hypothesis of Pollock (1989) were ruled out in Chomsky (1995). Instead, a single INFL projection was proposed where NOM case, agreement and EPP feature of T are checked in Tense Phrase. On the basis of this proposition, along with Larson's theory of VP shells, Chomsky (1995) proposes that VP is dominated by a light verb with two specifier positions.

The subsequent literature on the MP witnessed the evolvement of two properties of features. Chomsky (1995) distinguishes between interpretable and uninterpretable features. Uninterpretable features must be removed before the interface while the interpretable features do not need to be removed as they are interpreted at the interface. Agreement features on verbs and case features on nouns are examples of uninterpretable features, so they need to be removed before the interface. However, the inherent phi-features of number and person are interpretable features that interface. Chomsky (2000) also distinguishes between valued and unvalued features. Syntactic operations are induced by morphosyntactic features. For Chomsky, these are attribute–value pairs. Butler (2004) argues that attribute-value features are mainly devoted to case.

> We assume that DPs enter the derivation with a feature [CASE:] — i.e. the attribute of the feature (before the colon) is CASE, and the value of the feature (after the colon) is empty. The point of the attribute–value system, though, is that features should have both an attribute and a value, so DPs need their value filling in — this is how we formalize the case filter. Values are acquired by Agree with some c-commanding, specified case feature: here, say, with [CASE:NOM] on T (2004: 8).

3.3 *Case licensing in SA*

Case Licensing in SA has undergone intensive research over the past three decades. Fassi-Fehri (1993) argues that post-verbal subjects are assigned NOM case under government (by the internal I). However, preverbal subjects are assigned default NOM case only in the absence of a case assigner. Based on Aoun et al. (1994), structural NOM case is assigned via the agreement between the head and the DP in its Spec position in both SVO and VSO word order patterns. VSO order, they argue, results from V-to-F^0.

For Ouhalla (1994), preverbal as well as post-verbal nominative subjects (Spec TP and Spec VP, respectively) aren't in case-governed positions. Rather they are assigned NOM case via the positional default case. In a more recent account, Ouhalla (2005) argues that lexical items aren't inherently specified for syntactic categories such as [N] and [V]. These are roots that acquire their categorical features by virtue of being selected by a head bearing certain features including agreement features. According to this proposal, the verbal features reduce to [Person] and the nominal features reduce to [Class]. In this case assignment and feature matching proposal, Ouhalla illustrates NOM case results from matching [Case] with the [T] of I while ACC results from matching [Case] with the aspectual (transitivity-related) feature of V. This proposal states that agreement in [Class] represents the minimal form of subject-verb agreement. Accordingly, the subject in VS order stays in Spec ClassP and thus it receives nominative case as ClassP is a projection assigning nominative case. The V then moves to T to support tense. In SV order, on the other hand, the subject moves to FinP and the realization of [+nominal] of FinP are the features of [class] [number] and [person]. The full agreement is achieved in SV order when V moves to Fin through the ϕ-features present in FinP with which both V and S have to agree.

Several researchers share Benmamoun's (1999) argument that NOM case assignment results from agreement between the case assigning head and the nominal in its specifier position. As far as verbless sentences are concerned, Benmamoun argues that there is tense in such sentences, and the NOM Case is assigned by the [T] feature under agreement with the subject.

Case in SA, according to Soltan (2007), is a by-product of agreement. That is, NOM case assigned to the subject results from Agree with T while Agree with v* results in accusative case assigned to the object.

In a more recent account of case licensing in SA, Musabhien (2008) argues that the invariable structural NOM case on post-verbal subjects is the product of the Agree relation between the subject and the T, which inherits its features from C. Case variability on preverbal subjects in SVO orders, on the other hand, is dependent on the type of the complementiser. According to Musabhien, the complementiser which introduces the SVO clauses has a lexical feature not interpretable on T. Subjects in zero copula sentences, he argues, receive their NOM cases by means of the Agree relation between the C-T complex and the subject. However, the

NOM case is assigned to subjects, which are base generated in the specifier of vP, under Agree by T. The ACC case on the complement is assigned by the head of the vP.

This study argues that SV and VS orders are two distinct patterns, and thus, that SVO order in SA isn't derived from VSO order. Furthermore, this study purports that in addition to the preverbal DPs in SV order, all DPs in isolation as well as verbless sentences are assigned the default case typically assigned to topics in absence of any available lexical or structural case assigner. However, nominative case is assigned to post-verbal DPs under government.

4. OT syntax

Optimality Theory (OT, henceforth) aims to capture the basic regularities and the productive nature of a language via universal violable constraints. It also shares other linguistic theories the restrictions imposed on the possible linguistic expressions in a natural language (Prince and Smolensky, 2004; Muller, 2011, among others). To this end, OT introduces a set of violable universal constraints, which are universal and apply simultaneously to representations of structures. Yet, drawing on the tenets of the OT, languages' adherence to universal constraints is never absolute, and variations among varieties can be accounted for by proposing a hierarchical system of both violable and ranked constraints (Kager, 1999; Prince and Smolensky, 2004; Btoosh, 2006, among others). However, violation of a constraint doesn't imply ungrammaticality. Likewise, satisfaction of constraints doesn't secure grammaticality (Kager, 1999). Within the OT framework, language-specific rules are attained through the language-specific ranking of the crucially violable constraints, the substance of which is ideally conceived of as universal (Roca and Johnson, 1999). What determines the best output of a grammar is the least costly violation of the constraints. Though much of the research carried out with the OT framework has been devoted to phonology, it remains true that the OT scope is to explain linguistic phenomena including syntax.

A look at the relevant literature devoted to Arabic syntax within the OT framework is very scarce as compared to phonology, for instance. As far as the researcher can tell, only one study was conducted on Wh-movement on SA within the OT framework. As such, this paper aims to fill in the gap by replacing the sequential application of the case licensing rules with the simultaneous application of OT constraints. The scope of this study is limited to cover only DPs in isolation, topics and predicates in verbless sentences, and preverbal and post-verbal DPs in SV and VS patterns.

4.1 *Default case in SA*

Like some other languages, SA resorts to the default case to avoid filtering out caseless DPs that don't occur in an environment of case assignment. Building on Woolford (2006), Frazier (2007: 13) illustrates that the default case is not assigned. Rather, it emerges in the absence of a case assigner:

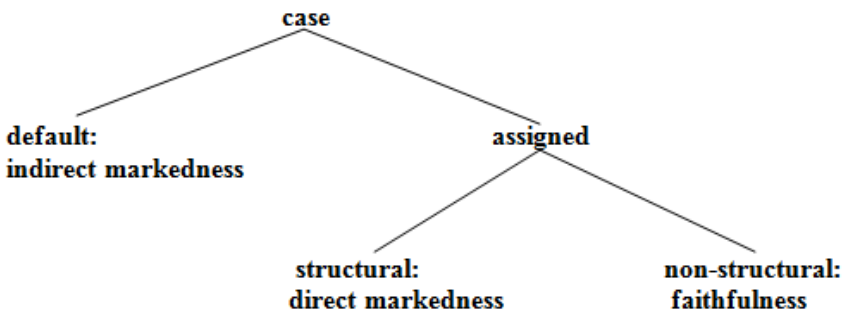

Figure 4**:** Type s of Cases

On the basis of this diagram, the default case materializes when a DP is not influenced by a positional case as a visible caseless DP is banned from surfacing. A review of the relevant literature exhibits variations among languages in terms of the default case. Unlike English, nominative is the overt case in SA. The examples presented below illustrate that the default case emerges when structural case fails to assign case to the noun or pronoun in question. For Frazier, the default case is neither directly controlled by markedness, nor by faithfulness constraints. According to Prince and Smolensky (2004), faithfulness constraints demand that the surface form (output) is identical to the underlying form (input) while markedness constraints impose conditions on the well-formedness of the output (the universally unmarked features).

Woolford (2006) proposes that there are ordered markedness constraints that block the realization of structural cases as shown in (13). The constraints shown in (12a-c) are governed by the general *CASE constraint expressed in (12):

(13) a. *CASE: case α is forbidden.
b.*DAT (“*Dative”): Avoid dative case.
c.*ACC (“*Accusative”): Avoid accusative case.
d.*NOM (“*Nominative”): Avoid nominative case.

4.1.1 *Nouns or pronouns in isolation*

Table 1 serves to illustrate that DPs in SA surface with a nominative case if there is no other case that could be assigned to them even in isolation. This, therefore, explains the emergence of DPs fully inflected for case as long as a DP is in a syntactic position to which no case is assigned. It is rather obvious that Structure Case constraint has no role to play in the optimal selection process.

(14) SC-SPECTPNOM: a DP in the spec of TP has nominative case (Frazier, 2007)

(15)	a. wahidun	b. ithnan	c. thalathatun	d. arba’atun
	one (nom.)	two (nom.)	three (nom.)	four (nom.)

Table 1: *ACC>>*NOM

/ithna:n/	Sc-SpecTP	*ACC	*NOM
a. ithnayn		*	
b.☞ ithnaan			*

Assigning an ACC to candidate (a), which is not influenced by a positional case, results in a fatal violation of the *ACC constraint, which is only assigned under government. Candidate (b) is assigned the default case as it is not influenced by a positional case. Thus, it prevails over candidate (a) despite incurring a violation of the least marked constraint, *NOM. Sc-SpecTP, on the other hand, is vacuously satisfied as there is no syntactic structure. The reverse ranking of the constraints above would make ACC rather than the default NOM as the default case in SA. However, the emergence of the NOM case is never absolute in fragments as the case associated with objects shows up when the DP would originally appear in an object canonical position. Similar findings are obtained in previous literature, including Merchant (2004).

An interesting piece of evidence in support of the emergence of the default case also comes from answering questions that start with 'Who told you?, Who is going…?, Who is…?'

(16) Input: Muhammad-un
Mohammad-NOM
'Muhammad'

Table 2: *ACC>>*NOM

/Muhammad/	Sc-SpecTP	*ACC	*NOM
a. Muhammadan		*	
b. ☞Muhammadun			*

A similarity seems to exist between Table 1 and Table 2 with regard to the constraints used and their ranking. The first candidate avoids the violation of NOM, but consequently runs into a fatal violation of the dominant constraint, *ACC. This example adduces evidence that NOM is the least marked constraint in SA. Though it has the same number of violations, candidate (b) wins the competition by sacrificing the rightmost ranking constraint at the altar of the highly ranked constraint *ACC. Once more, this example lends support to the emergence of the default case notion when a DP is not within the scope of a positional case. Over again, Sc-SpecTP is vacuously satisfied as there is no syntactic structure.

4.1.2 *Topics and predicates in verbless sentences*

All examples thus far have just involved detached DPs. Looking beyond such isolated DPs, it is evident from the examples below that NOM, the default case in SA, is also assigned to all NPs and pronouns in verbless sentences. Still, it is important at this juncture to bear in mind that all candidates in verbless sentences, including the optimal always violate both OCP and OB-HD constraints.

(17) Obligatory Contour Principle (OCP): Two elements with identical Case features are forbidden in the same domain. (Desouvrey 2007)

(18) Obligatory Head (OB-HD): A projection has a head. (Grimshaw 1997)

Table 3 lays out the constraint interactions responsible for case assignment in verbless sentences.

(19) Input: Muhammad-un mu?allim-un
Muhammad-NOM mu?allim-NOM
'Muhammad is a teacher'

Table 3: *ACC>>*OCP, OB-OH, *NOM

/Muhammad mu?allim/	*ACC	OCP	OB-OH	*NOM
a. ☞[T_{op}P [$_T$ Muhammad-un $_{NOM}$ [$_{AP}$ [$_A$ mu?allim-un $_{NOM}$]]]		*	*	**
b. [T_{OP}P [$_T$ Muhammad-an $_{ACC}$ [$_{AP}$ [$_A$mu?allim-un]]] $_{NOM}$]]]	*!		*	*
c. [T_{OP}P [$_T$ Muhammad-an $_{ACC}$ [$_{AP}$ [$_A$ mu?allim-an $_{ACC}$]]]	*!*	*	*	

Candidate (a) incurs four violations, but nevertheless it emerges as the optimal as it has no violations of the top-ranked constraint, *ACC. The ranking of *ACC over OCP in verbless sentences is compatible with the absence of case assigners as both topics and predicates are assigned the default nominative case. Unlike candidate (a), candidate (b) has managed to avoid *NOM but at the cost of having the wrong case (*ACC) since it is not in a position where a structural case is assigned. Candidate (c), on the other hand, is excluded as it is assigned a positional case in the absence of a case assigner.

On the basis of the assumptions made above, it is apparent that the default case emerges in the absence of a case assigner. In the context of both default case and topics, one would like to question what happens when a previously assigned default case DP becomes in a scope of a case assigner.

(20) Zayd-un ṭabi:b-un
Zaid-NOM doctor-NOM
'Zaid is a doctor'

(21) ?inna Zayd-an ṭabi:b-un
Comp Zaid-ACC doctor-NOM
'Indeed (I affirm that) Zaid is a doctor'

Assigning an accusative case to the preverbal DP in SVO order in (20) lends some support for the proposition that preverbal DPs are topics rather than subjects since post-verbal DPs uniformly appear with nominative case. That is, the DP, which receives a default NOM case at the phonetic form, is assigned a lexical ACC when preceded by Comp elements such as '?inna'. To avoid preserving the NOM case in the presence of a new case assigner, there must be a constraint that disfavors having two cases for the same DP. Drawing on Uriagereka (2008), a DP may not realize more than one case value.

(22) Case Freezing Condition (CFC): A DP may not have more than one case. (Uriagereka 2008)

(23) Input: ?inna zaid-an ṭabi:b-un
that zaid-ACC ṭabi:b-NOM
'That Zaid is a doctor'

Table 4: CFC, *OCP>>*ACC, OB-OH, *NOM

?inna X= zayd, Y= ṭabi:b	CFC	OCP	*ACC	OB-OH	*NOM
a. [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{T}$ Zaid-un $_{NOM}$ [$_{AP}$ ṭabi:b-un $_{NOM}$]]]	*!	*		*	**
b. ☞ [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{TOP}$ Zaid-an $_{ACC}$ [$_{AP}$ ṭabi:b-un $_{NOM}$]]]			*	*	*
c. [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{TOP}$ Zaid-un $_{NOM}$ [$_{AP}$ ṭabi:b-an $_{ACC}$]]]	*!		*	*	*

As Table 4 shows, the first candidate is ruled out as a nominal may not assume but only one case value. The topic 'Zayd-un' is eliminated as it is assigned the default NOM case, which cannot be licensed while it is in the scope of another case assigner. Candidate (b) is deemed the optimal candidate as it satisfies the top ranked constraint CFC. The third candidate is also ruled out from the race as the topic realizes the default NOM case while it is in the scope of the complementiser '?inna'. Additionally, the predicate 'ṭabi:b', which should receive the default NOM case, is assigned an accusative case while it is not in the scope of any other case assigner.

4.1.3 *Preverbal DPs (topics) in nominal sentences*

Within the syntactic theory, it is worth mentioning that case is licensed in connection with thematic roles. For Frazier (2007), non-structural cases are assigned by the faithfulness constraint developed in (24):

(24) FAITH–Θ: A DP bearing the theta role α has the case β. (Frazier, 2007)
a. F-AGENT→NOM: A DP bearing the theta-role of agent has nominative case.
b. F-PATIENT→ACC: A DP bearing the theta-role of patient has accusative case.

To make the analysis below compatible with the earlier research findings on SA regarding the topic features, it seems necessary to resort to the Topic constraint, which bans indefinite nonspecific NPs from surfacing preverbally.

(25) Topic: Topics cannot be indefinite.

Banning a topic from surfacing sentence initially blatantly contravenes with the TOPIC FIRST constraint.

(26) TOPIC FIRST: Topics are sentence initial (Gutiérrez-Bravo, 2005)

In conformity with the earlier discussion, topics in SVO sentences are always in a full agreement with their predicates in terms of gender, number, and person.

(27) AGRf: An agreement head H and a DP must agree on feature f within the local projection HP. (Samek-Lodovici 2001)

(28) Input: qara?-a ʔaṭṭulaab-u, ʔalkitaab-a
read-3.SG.MAS the students-NOM the book-ACC
'The students read the book'

Table 5: Topic-First, *Topic, AGRf, F- AGENT>> STAY, *ACC, *NOM

qara?-a (x, y) X= ʔaṭṭulaab-u, Y= ʔalkitaab-a	Topic-First	TOPIC	AGRf	F-AGENT	STAY	*ACC	*NOM
a. [T_{OP}P [$_{TOP}$ ʔaṭṭulaab-u [$_{TP}$ [$_{T}$ qara?-a_m [$_{VP}$ *pro* t_m l-kitaab-a]]]]			*!		*	*	*
b. [T_{OP}P [$_{TOP}$ ʔaṭṭulaab-a [$_{TP}$ [$_{T}$ qara?-u_m [$_{VP}$ *pro* t_m l-kitaab-a]]]]		*!		*			
c. ☞ [T_{OP}P [$_{TOP}$ ʔaṭṭulaab-u [$_{TP}$ [$_{T}$ qara?-u_m [$_{VP}$ *pro* t_m l-kitaab-a]]]]					*	*	*
d. [$_{TP}$ [$_{T}$ qara?-u_m [$_{VP}$ ʔaṭṭulaab-u t_m l-kitaab-a]]]	*!				*	*	*

The topmost candidate is immediately ruled out by incurring a fatal violation of AGRf as the verb is not compatible with the (plural) topic in terms of number. Candidate (b) is also precluded by the second top constraint TOPIC since indefinite DPs are banned from occupying a topic position. In spite of the three incurred violations, the most faithful candidate (c) remains the most harmonic as it could avert the penalty of the highly ranked constraints at the expense of the lowest two constraints down in the hierarchy. The last candidate (d) incurs two fatal violations. The presence of the topic outside the TP clearly contravenes the Topic First constraint. Besides, this candidate violates the AGRf since Spec-head agreement in number is only preserved in SV orders.

Turning now to the presence of DPs in the scope of another case assigner, we find that a constituent assigned case in its canonical position cannot be assigned another case by the complementizer. Furthermore, the table below shows that a structural case assigner has to discharge its case.

(29) Case Criterion: Every case must be discharged. (Fassi Fehri 1993)

(30) Input: ʔinna ʔaṭṭulaab -a qara?-u kitaab-an
that the students-NOM read-3.PL a book-ACC
'The students read a book'

Table 6: CFC, CASE DISCHARGE, STAY >> *ACC, *NOM

?inna, qara?-a (x, y) X= ?aṭṭulaab-u, Y= kitaab-an	CFC	AGRf	TOPIC	Case Criterion	STAY	*ACC	*NOM
a. [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{T}$ kitaab-an$_i$ [$_{TP}$ [$_{T}$ qara?-a$_m$ [$_{VP}$ *pro* ?aṭṭulaab-u t$_m$ t$_k$]]]		*!	!*	*!	*	*	*
b. [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{T}$?aṭṭulaab-u [$_{TP}$ [$_{T}$ qara?-u$_m$ [$_{VP}$ *pro* t$_m$ kitaab-an]]]	*!						
c. ☞ [$_{CP}$ [$_{C}$?inna [T_{OP}P [$_{T}$?aṭṭulaab-a [$_{TP}$ [$_{T}$ qara?-u$_m$ [$_{VP}$ *pro* t$_m$ kitaab-an]]]					*	*	*

The first candidate is ruled out as the complementizer *?inna* is unable to discharge its accusative case since *kitaab-an* is assigned an ACC case in its canonical position. Also, the complementizer is unable to assign case to the clausal topic due to the defective Intervention Effect (Chomsky, 2000). Candidate (b) incurs a fatal violation of the Case Freezing Condition (CFC) as a DP cannot be assigned the default case as long as it is in the scope of another case assigner. Candidate (c), on the other hand, wins the race by simply incurring the least costly violation of the constraints.

The analysis above leaves unexpressed the differences between Object Topic and Object Focus. Unlike Object Focus, which retains the accusative case, Object Topic requires that the fronted object to be assigned a nominative case. Accordingly and in order to avoid interpretational ambiguity, an obligatory resumptive pronoun is attached to the verb whose antecedent is the topicalized object (Ford, 2009). It should be mentioned that the resumptive pronoun agrees with the antecedent in gender and number.

(31) No Resumptive Pronoun (*RES)
Don't have a resumptive pronoun. (Keer 1999)

(32) Input: ?almarid-u$_i$ faḥaṣa-hu$_i$?aṭṭabib-u
the patient-NOM examined-3SG.MAS him the doctor-NOM
'The patient, the doctor examined him.'

Table 7: Topic-First, *Topic, RES, F-AGENT>> STAY,*ACC, *NOM

faḥaṣa (x, y) X= ?attabib-u, Y= ?almarid-a	Topic-First	TOPIC	F-AGENT	RES	STAY	*ACC	*NOM
a. [$_{CP}$ [T_{op}P [$_{T}$?aṭṭabib-u$_i$ [$_{TP}$ [$_{T}$ faḥaṣa$_m$–hu$_i$ [$_{VP}$ t$_m$?almarid-a]]]			*!	*	*	*	*
b. [$_{CP}$ [T_{op}P [$_{T}$?almarid-u$_i$ [$_{TP}$ [$_{T}$ faḥaṣa$_m$ [$_{VP}$?aṭṭabib-u t$_m$ t$_i$]]]		*!	*		**		**
c. ☞ [$_{CP}$ [T_{op}P [$_{T}$?almarid-u$_i$ [$_{TP}$ [$_{T}$ faḥaṣa$_m$-hu$_i$ [$_{VP}$?aṭṭabib-u t$_m$ t$_i$]]]				*	**	*	**

Candidate (a) is excluded as it creates an interpretational ambiguity. The resumptive pronoun, which should be attached to the verb, whose antecedent is the topicalized object, refers back to the Topic *?almarid-u* rather than the topicalized object. The second candidate is ruled out as it also creates an interpretational ambiguity by swapping the thematic roles of the constituents. Yet, the last candidate emerges as the winner by linking the resumptive pronoun to the topicalized object,

and thus has resolved the interpretational ambiguity in spite of the NOM case assigned to both the agent and the patient.

4.1.4 *Post-verbal subject*

Maintaining the input/output with regard to the word order inevitably results in a clear violation of not only the Adjacency Constraint, but also the Extended Projection Principle (EPP).

(33) Adjacency Constraint: oAv: the object is adjacent to the verb

(34) EPP: NP_{NOM} must be in Spec-TP (Muller, 2008)

(35) Input: ra?a Aḥmad-un alḥisaan-a
saw-3SG.MAS Aḥmad-NOM alḥiṣaan-a-ACC
'Ahmad saw the horse.'

Table 8: F-PATIENT, F-AGENT, OCP >>AoV, STAY, EPP, *ACC, *NOM

ra?a (x, y) X= arraju-u, Y= Aḥmad-a]]]	F-PATIENT	F-AGENT	OCP	AoV	STAY	EPP	*ACC	*NOM
a. [$_{TP}$ [$_{T}$ ra?a$_m$ [$_{VP}$ Aḥmad-un t_m l-ḥiṣaan-u]]]	*!		*!	*	*	*		**
b. [$_{TP}$ [$_{T}$ ra?a$_m$ [$_{VP}$ Aḥmad-an t_m l-ḥiṣaan-a]]]		*!	*!	*	*	*	**	
c. ☞ [$_{TP}$ [$_{T}$ ra?a$_m$ [$_{VP}$ Aḥmad-un t_m l-ḥiṣaan-a]]]				*	*	*	*	*

Candidates (a) and (b) are eliminated as being unfaithful to the top-ranked constraints F-θ and OCP. Candidate (a) violates F-Agent, which dictates that a DP bearing the theta-role of agent has nominative case. Candidate (b), on the other hand, incurs a fatal violation of F-Patient constraint, which clearly states that A DP bearing the theta-role of patient has accusative case. Moreover, both candidates (a and b) incur another fatal violation of the second top-ranked constraint OCP. In spite of the three incurred violations, candidate (c) wins simply by satisfying the two top-ranked constraints F-θ and OCP.

Constituent flexibility in VSO pattern doesn't affect the thematic roles of constituents.

(36) Input: ?a'ṭa arrajul-u ?alwalada ?alkitaaba
gave-3SG.MAS the man-NOM the boy-ACC the book-ACC
'The man gave the boy the pen.'

Table 9: F-PATIENT, F-AGENT, OCP >>AoV, STAY, EPP, *ACC, *NOM

?a'ṭa (x, y) X= arrajul-u, Y= ?alwalad-a, Z= ?alkitaab-a]]]	F-PATIENT	F-AGENT	OCP	AoV	STAY	EPP	*ACC	*NOM
a. [$_{TP}$ [$_{T}$?a'ṭa $_{m}$ [$_{VP}$ arrajul-u t_m ?alwalad-u ?alkitaab-a]]]	*!		*	**	*	*		**
b. [$_{TP}$ [$_{T}$?a'ṭa $_{m}$ [$_{VP}$ arrajul-a t_m ?alwalad-a ?alkitaab-a]]]		*!	*	**	*	*	**	
c. ☞ [$_{TP}$ [$_{T}$?a'ṭa$_{m}$ [$_{VP}$ arrajul-u t_m ?alwalad-a ?alkitaab-a]]]			*	**	*	*	*	*

The first candidate (a) is eliminated due to its violation of the top-ranked constraint F-PATIENT. Although candidate (b) adheres to F-PATIENT, it is ruled out as it assigns an agentive role to the theme, and it thus incurs a fatal violation of the F-AGENT. In spite of incurring several violations, the optimal candidate (c) could win the race by escaping the penalty of the top-ranked constraints.

5. Conclusion

At the onset of this study, it was pointed out that word order alternation is SA has remained a controversial issue in the literature of Arabic linguistics. Throughout this paper, an attempt has been made to elucidate the different arguments and propositions presented by researchers on case and word order alternation in the variety under investigation. The study has also presented a new analysis to account for these issues within the optimality theory framework. The scope of the study is limited to case assignment and word order alternation in VSO and SVO patterns, along with the case assignment of DPs in isolation and verbless sentences. Evidence has shown that these patterns are distinct at the underlying level. The distribution of the DPs in both orders is governed by a set of constraints that don't allow DPs in either of these orders from surfacing in the other's position as if it was a derived form.

References

Akkal, A. 1996. How SVO is SVO in Standard Arabic. In: Fassi-Fehri. A. (ed.). *Liguistique comparee et langues au Maroc* (pp. 101-127). Universite Mohamed V: Publications de la Faculte des Lettres et des Sciences Humaines, Rabat.

Alexiadous, Artemis & Elena Anagnosopoulou. 1998. Parametrizing AGR: word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory*, 16(3), 491-539.

Al-Balushi, Rashid. 2011. *Case in Standard Arabic: The untraveled paths*. Ph.D. dissertation, University of Toronto.

Aoun, Joseph, Elabbas Benmamoun & Dominique Sportiche. 1994. Agreement and conjunction in some varieties of Arabic. *Linguistic Inquiry* 25. 195–220.

Barbosa, Pilar. 2000. Clitics: a window into the null subject property. In João Costa (ed.), *Portuguese Syntax: Comparative Studies*, 31–93. New York: Oxford Press.

Belnap R. Kirk & Niloofar Haeri 1997. *Structuralist studies in Arabic linguistics: Charles A. Ferguson's papers, 1954-1994.*

Benmamoun, Elabbas. 1992. *Functional and inflectional morphology: Problems of projection, representation and derivation*. Ph.D. dissertation, USC, Los Angeles, CA.

Benmamoun, Elabbas. 1999. Spec-head agreement and overt Case in Arabic. In *Specifiers: Minimalist approaches*, ed. by David Adger, Susan Pintzuk, Bernadette Plunkett and George Tsoulas, 110-125, Oxford: Oxford University Press.

Benmamoun, Elabbas. 2000. *The feature structure of functional categories: A comparative study of Arabic dialects*. Oxford: Oxford University Press.

Bolotin, N. 1995. SA and parametric VSO agreement. In: M. Eid (ed.). *Perspectives on Arabic linguistics* VII, 7-27. Amsterdam and Philadelphia: John Benjamins.

Btoosh, Mousa 2006. Constraint interactions in Jordanian Arabic phonotactics: An optimality-theoretic approach. *Journal of Language and Linguistics* 5(2). 192 – 221.

Btoosh, Mousa. 2011. Wh-Movement in Standard Arabic: Optimality Theoretic Account. *Poznan Studies in Contemporary Linguistics* 46(1). 1-26.

Burzio, Luigi. 2000. Anatomy of a generalization. In E. Reuland Eric (ed.), Arguments and case Explaining burzio's generalization, 195–240. Amsterdam: John Benjamins.

Butler, Jonny. 2004. Everything's indefinite. Paper presented at the Conference *Strategies of Quantification*. University of York, July16.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1991. Some notes on economy of derivation and representation. In: Freidin, R. (ed.), *Principles and parameters in comparative grammar*. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In: Halle, Kenneth and Samuel Keyser (eds.), *The View from building 20.* Cambridge, Mass.: MIT Press. 1-52.

Chomsky, Noam. 1995. *The minimalist program*. Cambridge, Mass.: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In: ROGER; MICHAELS, David Michaels & JUAN Uriagereka, (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. Cambridge, MA: MIT Press.

Chomsky, Noam & Howard Lasnik. 1977. Filters and Control. *Linguistic Inquiry* 8: 425-504.

Demirdache, Harnida. 1989. *Nominative subjects in Arabic*. Ms., MIT and University of Nantes.

Desouvrey, Louis-H. (2007). Wh-Interrogatives: The OCP Cycle. www.semanticsarchive.net.

Dryer, Matthew S. 2005. Order of subject, object, and verb. In: Haspelmath, Martin et al. (eds.), *The World Atlas of Language Structures*. Oxford: Oxford University Press.

Emonds, Joseph. 1980. Word order and generative grammar. *Journal of Linguistic Research* 1, 33–54.

Fakih, Abdul-Hafeed 2006. Licensing, movement and feature checking in Standard Arabic: A minimalist approach. *Journal of King Saud University*, 19, *Arts* (2), pp. 37-54.

Fassi-Fehri, Abdulkader. 1993. *Issues in the structure of Arabic clauses and words*. Dordrecht: Kluwer.

Ford, David. 2009. *The Influence of Word Order on Modern Standard Arabic Information Structure*, GIALens (Special Electronic Publication of the Graduate Institute of Applied Linguistics), Vol. 3, No 2(April 2009). Available on line: (http://www.gial.edu/documents/gialens/vol3-2/ford-info-structure-and-word-order-msa.pdf)

Frazier, Melissa. 2007. *Default case in OT syntax*, ms.: University of North Carolina. http://roa.rutgers.edu/files/941-1207/941-FRAZIER-0-0.PDF.

Grimshaw, Jane. 1997. Projection, heads and optimality. *Linguistic Inquiry* 28. 373–422.

Gutiérrez-bravo, Rodrigo. 2005. Subject Inversion in Spanish Relative Clauses. A Case of Prosody-induced word Order Variation without Narrow Focus. In: GEERTS, Twan; JACOBS, Haike. *Romance Languages and Linguistic Theory 2003*. Amsterdam: John Benjamins.

Haegeman, Liliane. 1994. *Introduction to government & binding theory*. 2nd ed. Oxford: Blackwell.

Jelinek, Eloise. 1984. Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2, 39-76.

Kager, Rene, 1999. *Optimality Theory*. Cambridge University Press

Keer, E. 1999. *Som and Optimality Theory*. (Unpublished manuscript, University of Massachusetts, Amherst. Available from Rutgers Optimality Archive, 313-0499.) <http://roa.rutgers.edu/>

Koopman, Hilda & Dominique Sportiche. 1991. The position of subjects. *Lingua* 85.2/3.

Mahfoudhi, Abdessatar. 2002. Agreement lost, agreement regained: A minimalist account of word order and agreement variation in Arabic. *California Linguistic Notes*, 27 (2), 1-28.

Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27:661–738.

Mohammad, Mohammad. 2000. *Word order, agreement and pronominalization in standard and Palestinian Arabic*. Philadelphia: John Benjamins Publishing.

Moravcsik, Edith. 2006. *An Introduction to syntactic theory*. London: Continuum Books.

Müller, Gereon**.** 2008. Optimality, markedness, and word order in German. *Linguistics*. Volume 37, Issue 5, Pages 777–818, ISSN (Online) 1613-396X, ISSN (Print) 0024-3949, DOI: https://doi.org/10.1515/ling.37.5.777, February 2008.

Müller, Gereon. 2011. *Optimality-theoretic syntax*. Leipzig: Universität Leipzig (Manuskript).

Musabhien, Mamdouh. 2008. *Case, agreement, and movement in Arabic: a minimalist approach*. Ph.D. dissertation, University of Newcastle, UK.

Ouhalla, Jamal. 1994. Verb movement and word order in Arabic. In: Lightfoot, D. & N. Hornstein (eds.), *Verb movement* (pp. 41-72). Cambridge: Cambridge University Press.

Ouhalla, Jamal. 1997. Remarks on focus in Standard Arabic. In: Eid, M. and R. Ratcliffe (eds.), *Perspectives on Arabic Linguistics X: Papers from the Tenth Annual Symposium on Arabic Linguistics* (pp.9-45). Amesterdam/Philadelphia: John Benjamins.

Ordóñez, Francisco & Esthela Treviño. 1999. Left dislocated subjects and the pro-drop parameter: A case study of Spanish. *Lingua* 107:39-68.

Ouhalla, Jamal. 2005. Agreement features, agreement and anti-agreement. *Natural Language and Linguistic Theory*, 23 (3). 655-686.

Pollock, Jean-Yves. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20, 365-424.

Plunkett, B. 1993. The position of subjects in Modem Standard Arabic. In Mushira, E. & C. Holes (eds.) *Perspectives on Arabic linguistics V: papers from the fifth annual symposium on Arabic linguistics*. Amsterdam: John Benjamins. 231-60.

Postal, Paul 1974. *On Rising*. Cambridge, MA: MIT.

Prince, Alan & Paul Smolensky. 2004. *Optimality Theory: Constraint Interaction in Generative grammar*. (Rev. Version). Blackwell: Malden, MA; Oxford, UK; Carlton,Aus.

Roca, Iggy & Wyn Johnson. 1999. *A workbook in phonology*. Blackwell Publishers, paperback.

Samek-lodovici, vieri. 2001. *Agreement Improvishment Under Subject Inversion. A crosslinguistic analysis*. Unpublished manuscript, UC London.

Saidat, Ahmad. 2006. *The syntax of Quranic Classical Arabic: A principles and parameters approach*. Ph.D. dissertation, University of Texas.

Siewierska, Anna. 1988. *Word order rules*. London: Croom Helm.

Soltan, Usama. 2007. *On formal feature licensing in minimalism: Aspects of Standard Arabic morphosyntax*. Ph.D. dissertation, University of Maryland.

Sproat, Richard. 1985. Welsh syntax and SVO structure. *Natural Language and Linguistics Theory*,3, 173-216.

Tamari, Emad. 2001. *Sentential negation in English and Arabic: A minimalist approach*. Ph.D. Dissertation. University of Kansas.

Tomlin, Russell S. 1986. *Basic word order: Functional principles*. London: Croom Helm.

Uriagereka, Juan. 2008. *Syntactic Anchors: On Semantic* Structuring. Cambridge University Press.

Vergnaud, Jean-Roger. 1977. Letter to Noam Chomsky and Howard Lasnik on Filters and Control. Manuscript. Reprinted in: Freidin, R., C. Otero, and M. Zubizarreta, (eds.), *Foundational Issues in Linguistic Theory. Essays in Honour of Jean-Roger Vergnaud,* 3–15. Cambridge, MA.: MIT Press.

Woolford, Ellen. 2006. Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37. 111-130.

Zughoul, Muhammad. Raji. 1980. Diglossia in Arabic: Investigating solutions. *Anthropological Linguistics*, 22(5). 201-17.

Mousa A. Btoosh, Ph.D.,
Dept. of English Language and Translation
Fahad Bin Sultan University
P.O. Box 15700
Tabuk 71454, KSA
Cell. (++966)566 32 3942
btoosh@fbsu.edu.sa
mousa.btoosh@gmail.com

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