THE SYNTAX OF WH-MOVEMENT IN MODERN STANDRAD ARABIC

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Abstract

Three types of syntactic movement have been studied; head movement, argument movement (A- movement), and non-argument movement (Wh-movement or A' movement). This paper deals with the formation of wh- questions in Modern Standard Arabic within Government Binding theory (Chomsky 1986) and Optimality Theory (Prince, A and Smolensky 1993).

Theoretical Background

In the beginning, Optimality Theory has dealt with the phonological problems (Prince & Smolensky 1993/2004, McCarthy & Prince 1995), and then new ideas have been adopted in other grammatical domains in syntax (Grimshaw 1997, Ackema & Neeleman 1998, Grimshaw & Samek-Lodovici 1998, Barbosa ,Danny Fox,Paul Hagstrom,Martha McGinnis,and David Pesetsky1998, Dekkers et al. 2000, Legendre Géraldine, Grimshaw, Jane & Vikner, Sten 2001).The main theoretical assumptions of the Optimality Theory can be summarized as follows:

(A) Grammatical constraints can conflict with each other and are violable under certain conditions.

(B) Grammatical constraints are ordered according to their respective weight.

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(C) Different rankings of constraints are responsible for differences between individual grammars or languages.

(D) A construction is grammatical if it wins the competition in a candidate set, because it satisfies the higher-ranked constraints.

In optimality theory, each potential output candidate is evaluated according to faithfulness: dependence constraints penalize the occurrence of elements in the output that do not have a correspondent in the input. Maximality constraints penalize the presence of elements in the input that do not have a correspondent in the output, and identity constraints penalize a featured mismatch between input and output. Grimshaw (1997) claims that the input for a syntactic evaluation must be some representation of meaning ;for instance an LF representation. The same should hold for morphological evaluations. However, Heck &Muller(2000),Muller(2002) claim that input can be dispensed within OT-syntax. They argue that syntax is information preserving, while phonology is not.

Grimshaw (1997) deals with English sentence structure (including interrogatives, *wh*-movement, *do*-support and negative-induced inversion) within GB. She observes that only the last sentences (d) is grammatical.

(1) a. *They will read what?

b. *Will they read what?

c. *What they will read?

d. What will they read?

The set of candidates based on the input (read, they, what, will) includes structural representations of all potential strings constituted

by the given items. Among the constraints Grimshaw' assumes are the following:

STAY: Do not move.

OP-SPEC: Operators are realized in SPEC position.

OBL-HD: Heads must be filled.

According to Grimshaw (1997), the evaluation in (1) shows that two movements (in violation of STAY) are needed in order to satisfy the higher-ranked constraints.

(The constraint columns are ordered from left to right; '*' indicates a violation, while '*!' indicates a fatal violation. The optimal candidate is indicated by '☞'.)

(2) Interrogatives in English (Grimshaw 1997: 378)

CANDIDATES	OP-SPEC	OB-HD	STAY
a. $[_{IP}$ they will $[_{VP}$ read what]]	*!		
b. $[_{CP}$ will$_k$ $[_{IP}$ they t_k $[_{VP}$ read what]]]	*!		*
c. $[_{CP}$ what$_i$ [IP they will $[_{VP}$ read ti]]]		*!	*
☞ d. $[_{CP}$ what$_i$ will$_k$ $[_{IP}$ they t_k $[_{VP}$ read ti]]]			**

Syntactic formation of wh-questions and constraints

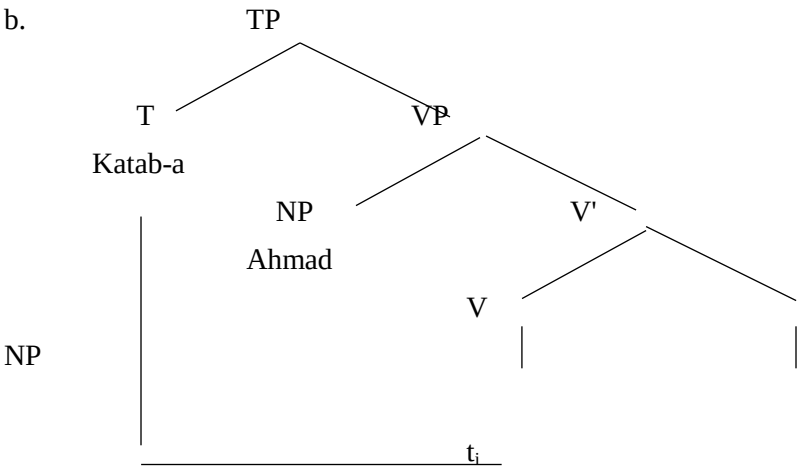
Theoretically speaking, Arabic is a free word order language because of its rich inflectional morphology. It has two common sentence structures: subject initial or SVO order and verb initial or VSO order. Two

movement operations may take place to derive the surface structure of Arabic clauses (Fassi Fehri 1993, Aoun et al 1994 and Benmamoun 2000).

(i) V to T movement (to derive VSO structure)

3. a Katab-a Ahmad-u qasidat-an
Write.3s Ahmad.nom poem.acc
Ahmad writes a poem.

b.

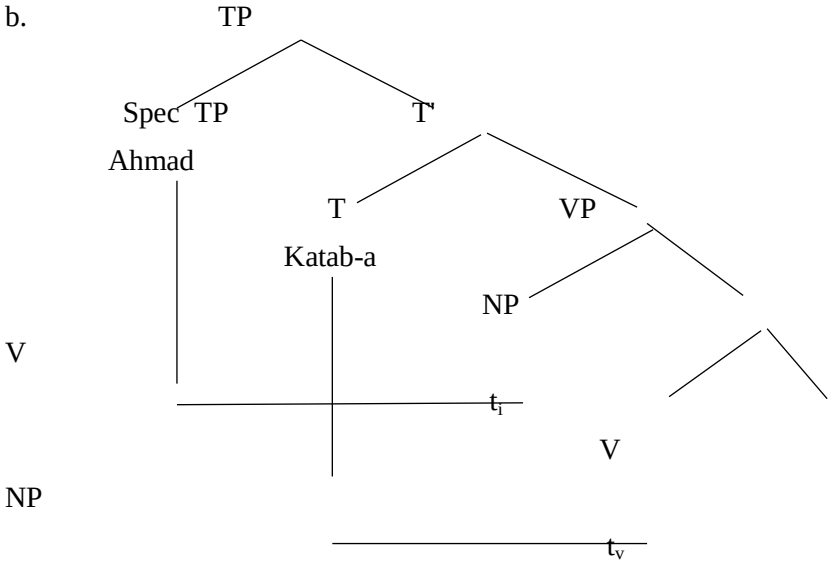


qasidatan

(ii) Raising of a DP from its base position to Spec-TP (SVO structure). Chomsky (1981:131), states that Clausal structures must have subjects, and a Spec-TP is a specific position that has to be filled in some languages like English. This requirement is known as ***Extended Projection Principle*(EPP)**. *(Chomsky 1981)*

4.a Ahmad-u Katab-a qasidat-an
Ahmad.nom Write.3s poem.acc
Ahmad writes a poem.

b.



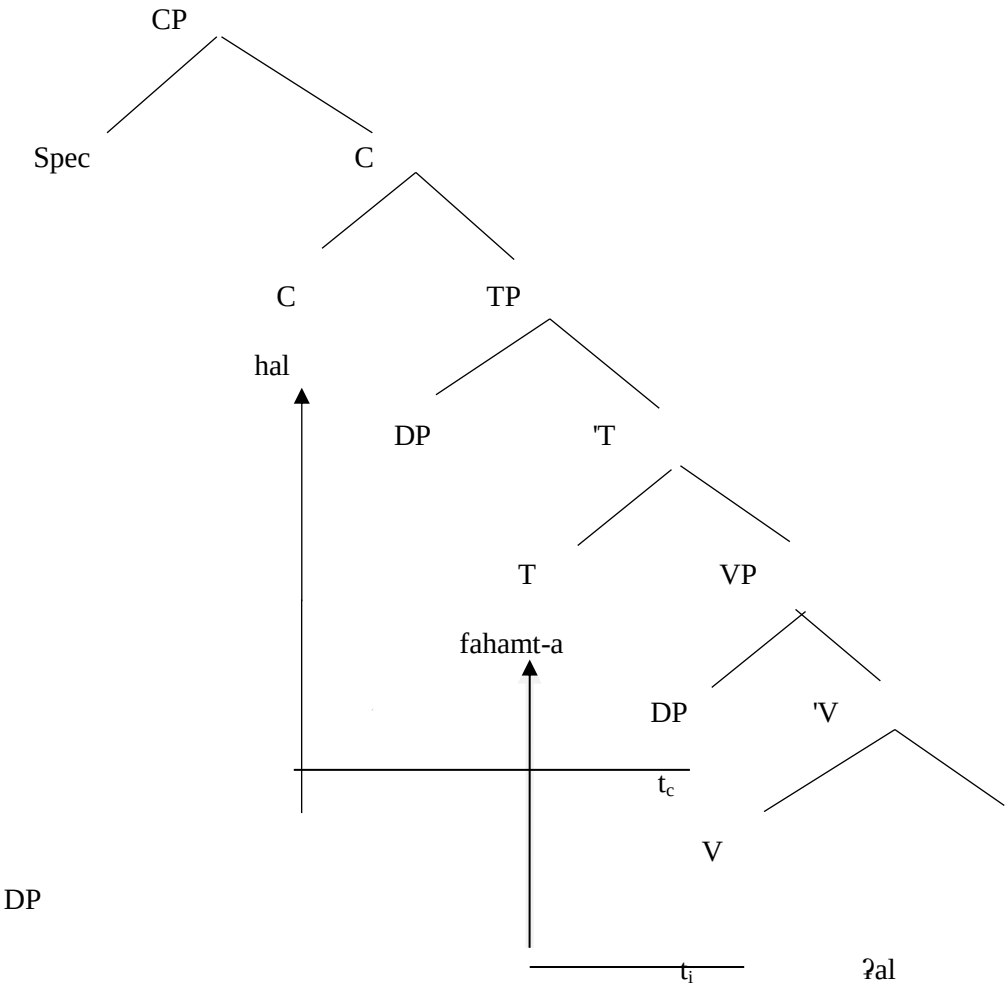
Aoun etal (1994) propose that the verb moves to C in interrogative sentences, based on the fact that the verb cliticizes with the question particle as in:

5. a. hal fahamt-a ʔal gassedat-a ?
Q-you understand -2s the poem-Acc ?
Did you understand the poem?

6. ə- fahamt- a ʔal gassedat-a ?

Q-you understand -2s the poem-Acc ?

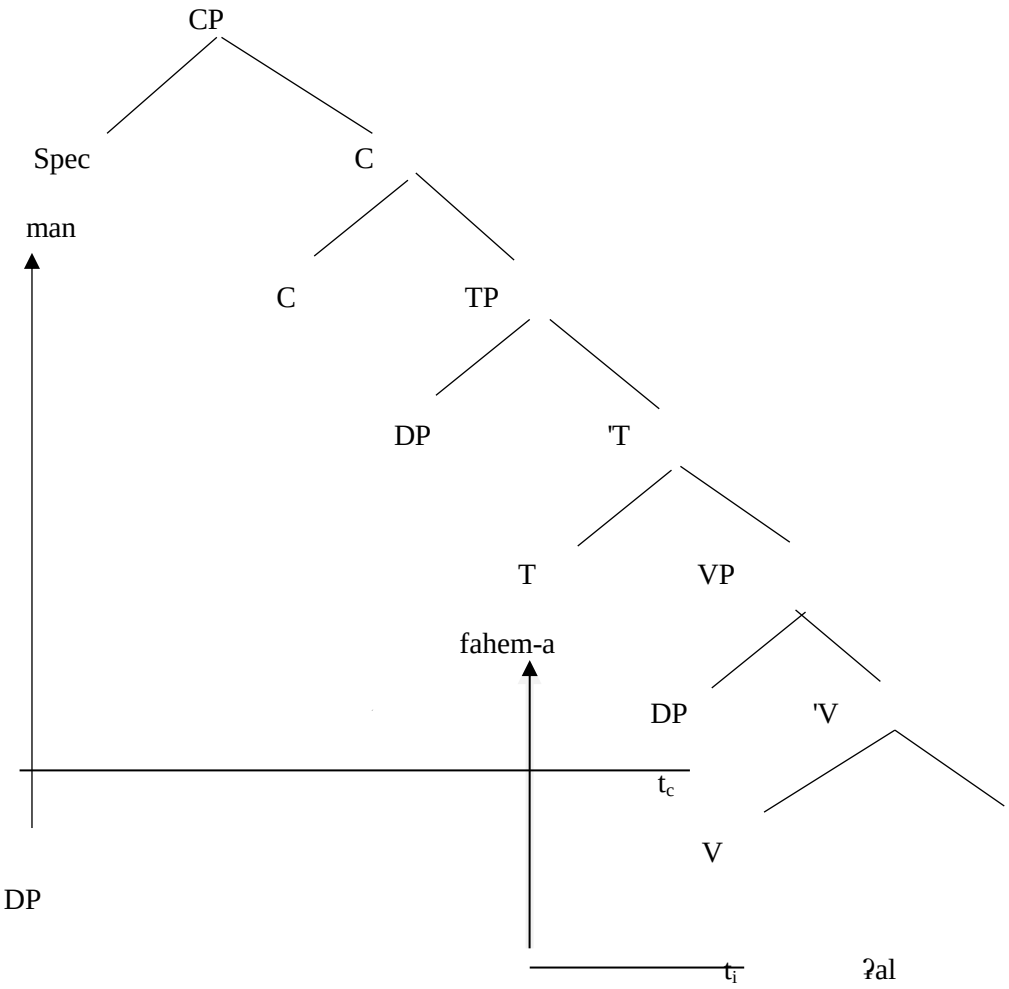
Did you understand the poem?



7. man fahem-a ʔal gassedat-a ?

who understand.pass.sg.masc the poem-Acc?

who did understand the poem?



According to above examples, wh-word moves from its original position to one of the potential specifier positions; SPEC TP or SP CP leaving a trace

in its extraction positions, so we can say that wh-words in MSA can originate in argument and non-argument positions.

This study adopts the constraints proposed by Grimshaw (1997) et al on question formation. These constrains are as follows;

STAY*:* *Trace is not allowed (Grimshaw 1997)*

OP CPEC: *Syntactic operators must be in specifier position. (Grimshaw 1997)*

OBL-HD: *Heads must be filled. (Grimshaw 1997)*

FAITH (COMP): *The output value of (COMP) is the same as the input value*.

(Muller 1999)

* **RES:** *Do not have a resumptive pronoun. (Keer 1999)*

Wh-C: *No Complementizer is pronounced in C when a phrase is pronounced*

in SPEC (Pesetsky 1997)

Within OT, wh-word in Modern Standard Arabic questions must end up in a logical specifier position in the matrix and subordinate clause; consequently, operator in specifier (OP SPEC), must dominate STAY.

8.a qabal-a Ali-un man

b. Ali-un qabal-a man

c. man qabal-a Ali-un?

who did Ali meet ?

CANDIDATES	OP SPEC	STAY
a. [$_{VP}$ Ali-un qabal-a man]	*!	
☞b. [$_{TP}$ man$_i$[$_T$ qabal-ai][$_{VP}$ Ali-un t_i t_i]]		**

The candidate (a) violates OP SPEC constraint. Candidate (b) comes out as optimal because it escapes the penalty of the intolerable of OP SPEC constraint, and according to Prince and Smolensky (1993); it is important for the optimal candidate to escape the penalty of the top-ranked constraint irrespective of the number of the violation of the low-ranked constraints.

In addition to wh-words which originate in operator specifier, there are wh-words in an argument position called obligatory Head (OB-HD)

9.a katab-a man addars-a

write.pas.sg.masc who the lesson-acc

Who wrote the lesson?

b. man katab-a addars-a

who write.pas.sg.masc the lesson-acc

Who wrote the lesson?

c. man katab-a addars-a

who write.pas.sg.masc the lesson-acc

Who wrote the lesson?

CANDIDATES	OP SPEC	OB HD	STAY
a. [$_{TP}$ [$_{T}$ katab-a$_i$][$_{VP}$ man t$_v$ addarsa]]	*!		*
b. [$_{CP}$ man$_i$[$_{TP}$ t $_i$[$_{VP}$ katab-a addarsa]]]		*!	**
☞c. [$_{TP}$ man$_i$ [$_{T}$ katab-a$_i$][$_{VP}$ t $_i$ t $_v$ addarsa]]]			**

Candidate (a) fails to win. OP SPEC bans wh-words from leaving its original place. Candidate (b) eliminated by OB-HD because the projection (CP) is left headed, whereas candidate (c) wins the competition because it satisfies the higher ranked constraint.

Moreover, relative pronouns in MSA follow definite antecedents and they agree with them in number, gender, and case assignment as in.

10. man aṭalebat-u alti ʕaqaba-ha almudares-u?

which the student.fem that punish-3.sg.masc(her) the teacher.nom?

which student did the teacher punish ?

11. man alti ʕaqaba-ha almudares-u ?

which / who that punished.3.sg.masc(her). the teacher.nom?

which student did the teacher punish?

12. *man almudares-u alði hua ʕaqaba aṭalebat-a?

*which teacher.nom that punished.3.sg.f the student.acc?

*Which teacher punished the student?

According to the above examples, the phonological agreement of the complementizer is obligatory when the head is present or deleted and the resumptive pronoun is behind it. Consequently, we can see which candidate is optimal by satisfying the following constraints

CANDIDATES	OP-SPEC	FAITH COMP	OB-HD	*RES	Wh-C	STAY
a.[$_{CP}$ man aṭalebat-u [$_{TP}$ t_i [$_{VP}$ʕaqaba$_i$ almudares-u t_i t_i]]]		*!	*!			***
b.[$_{TP}$ aṭalebat-u$_i$ [$_{CP}$[$_{C}$alti$_i$][$_{TP}$ʕaqaba-ha [$_{VP}$ almudares-u t_i man t_i]]]	*!			*		**
☞**c**.[$_{CP}$ man aṭalebat-u$_i$ [$_{C}$alti$_i$][$_{TP}$ t_i [ʕaqaba$_i$-ha][$_{VP}$ almudares-u t_i t_i]]]				*	*	**

The candidate (a) loses because of the violation of the top-ranked FAITH (COMP) and OB-HD constraints. Candidate (b) is also loses by violation of the constraint OP-SPEC. However, candidate(c)violates

*RES,Wh-C, and STAY, it wins the competition by satisfying the top-ranked constraints (OP-SPEC, FAITH, OB-HD).

CONCLUSION

To sum up, Modern Standard Arabic is similar to English in the formation of Wh-question where the wh-words move from their base generated positions to Spec-CP positions, however; they differ in which the constraints govern the category movement, and evaluate and limit how far candidate outputs may differ from inputs.

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