A Minimalist Approach to Short Passive in Standard Arabic

Amjed Ahmed Ayyat, Fazal Mohamed Sultan, Mohamed Subakir Mohd Yasin

School of Language Studies and Linguistics at National University of Malaysia

Abstract: This paper aims at deriving short passive sentences in Standard Arabic (SA henceforth) within Chomsky’s Minimalist Approach (1995, 2005). We claim that a Voice° with a valued ( - active) feature should be introduced with the passive infix as its specifier to the derivation. We also claim that verbs enter the derivation with unvalued voice features that can be valued by entering in a probe-goal syntactic relationship with the voice°. This relationship triggers the verb to move up to voice° for two reasons: First, to satisfy its unvalued voice feature. Second, to pick up the passive infix and move further to T° to satisfy its EPP in a VS order sentence, whereas in an SV order sentence, the verb remains in voice° and the surface subject DP moves from [Spec,V] to [Spec ,T] to satisfy the EPP feature of T°. Therefore, we argue against Soltan (2007) who maintains that SA does not make use of A-movement. However, we agree with him in claiming that SA passives have no vP shells since passives have no external argument. It is to be mentioned that this claim goes in line with Chomsky’s (2005) theory of phases.

Key words: passive, Minimalist Syntax, Standard Arabic, Voice.

INTRODUCTION

Being considered as the formal language in many countries in the Middle East, Arabian Peninsula, and the north of Africa, SA has been the core of many linguistic studies due to its rich phonological, morphological, syntactic and semantic system (Ryding, 2005). Moreover, SA gains its importance from its descentness from Classical Arabic (CA henceforth), the language of Qur’an. CA and SA differ in their lexicon, style and many things that we will not dwell on in this paper. One of the most important characteristics that SA is distinguished with is that voice is morphologically expressed in the prosodic tier of a perfective verb in which the melody tier changes to {u,i} in the passive form. On the other hand, in an imperfective verb, the melody tier changes to {u,a}. The following two examples illustrate the morphological changes occur on the verb when passivized:

1- Perfective: qatala : qutila
   kill : was-killed

2- Imperfective: yaqtul : yuqtal
   To kill : to be killed

Maalej (1999) calls this process infixation in which the passive morphemes {u,i} and {u,a} are superimposed to the root of the verb/ q t l / to change it to passive form. Thus, we can conclude that part of the passivization process in SA is morphological.

On the syntactic level, the process of passivization is defined by early Arab grammarians as the nomination of the object of the active sentence to the surface subject position in the passive sentence where the surface subject gains a default nominative case and the verb loses its ability to assign accusative case. Moreover, a very important point to mention is that early Arab grammarians claim that the real subject of the active sentence is not lexicalized at all in the passive sentence. This definition goes in line with Chomsky (1986) in which he claims that passive in SA is a morphosyntactic process that changes occur on both the morphology of the verb and the structure of the sentence. The following example shows the process of passivization in SA:

(1) saraqa ?al-liSS-u ?al-bayt-a
    robbed-sg m the-thief –Nom m the-house-Acc m
    The thief robbed the house.

(2) suriqa ?al-bayt-u
    robbed-passive sg m the-house-Nom m
    The house was robbed.

Sentence (2) is considered a short passive sentence since the surface object ?al -liSS is NOT lexicalized in the passive sentence. This kind of sentence is the goal of this study.

To summarize this section, the process of passivization in SA is a morphosyntactic process in which the verb is morphologically changed by inserting a passive infix to its stem or root along with nominating the object to the subject position and carrying a default nominative case.

Corresponding Author: Amjed Ahmed Ayyat, School of Language Studies and Linguistics at National University of Malaysia
E-mail: ayyat78@yahoo.com
Discussion:

This section aims at reviewing previous analyses that dealt with the concept of passivization within the Minimalist Approach on both SA and English. It is worth mentioning that there is only one study to short passives in SA introduced by Soltan (2007) who argues that passives in Standard Arabic do not involve the movement of the DP to a higher position in the derivation. Thus, the DP in VS order originates in its thematic position and remains in situ in which it receives its nominative case and agrees with T. Whereas, in an SV order, the DP is base originated in [spec, T] and T has no EPP feature and agrees with an originated pro in [spec, V].

We think that Soltan’s analysis to passive in SA is insufficient and inappropriate since it ignores a minimalist desideratum which is A-movement. If we say that, in an SV order sentence, the DP is base originated in [spec, T], this would wrongly predict that the DP does not get its thematic role since [spec, T] is NOT a thematic position. Additionally, this seriously violates Baker’s (1988) UTAH in which he claims that each DP must be assigned a thematic role with regard to the canonically associated predicate. Therefore, to avoid this, we would say that the DP originates in [spec, V], gets its thematic role and then moves up to [Spec, T] to satisfy the EPP feature in T'.

Additionally, Soltan maintains that Standard Arabic passives do not involve a VP projection since they do not have external subjects. Furthermore, he claims that passives with external subjects are ungrammatical as the following example stated in his thesis:

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- *kutibat
  Wrote-passive sg fem the-letter-Nom by-mediation-Dat Zayd-Gen
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The letter was written by Zaid.

We would rather agree with Soltan that the above sentence in not grammatical and thus SA passive constructions have no VP shell. Actually, we believe that the above sentence is used by translators to translate English sentences such as “the letter was written by Zaid”. On the other hand, Maalej (1999), for instance maintains that the above sentence is grammatical in SA and he claims that they sound like western passive constructions that use the by-phrase. The main reason of this similarity is that Arab translators echo this construction by phrase to get the same meaning of the western construction in SA.

Finding out that there is only one short analysis to passives in SA within the Minimalist approach, we resort to other studies conducted in English to see how this phenomenon has been treated. The following are previous approaches dealing with passives in English within Minimalism.

Radford (2009) derives a short passive English sentence simply by assuming that the surface subject of the sentence originates VP internally then it moves up to [Spec,T] to satisfy the EPP feature. Radford bases his assumption that the DP originates in the internal position of VP on the grammaticality of the passive sentence introduced by an expletive there:

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- There was found no evidence of any corruption.
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Radford maintains that short passive constructions are similar to unaccusatives in allowing expletive structure. Therefore, the subject in unaccusatives originates internally as short passive sentences. Another base that Radford uses to support his assumption of DP originating internally is drawn from Baker’s UTAH that passive subjects carry the same thematic role as active objects. Thus, it is plausible to assume that passive subjects originate internally within VP as active objects. We believe that Radford’s approach is sufficient to derive short passives in English. However, we think that SA needs another approach since the process of passivization in SA is different from English.

Gehrke and Grillo (2009) introduce a new approach to deal with passivization phenomenon in English in which they pay their attention on the predicate structure rather than the arguments. To them, a predicate is a complex event which composes the core of passive constructions. They maintain that such an assumption can simply help determine which kind of a predicate is allowed to passivize. Consequently, passivization is an operation on an event-predicate structure- rather than argument structure.

Gehrke and Grillo (2009) criticize three important previous analyses which dealt with the same phenomenon. These analyses, according to them, consider passivization as a transition on the structure of DPs. For instance, Baker et al. (1989) propose that the –en morpheme is attached to IP/TP and gets lowered to V to “absorb” case assignment. Thus, the internal argument raises to get its theta role according to UTAH. Gehrke and Grillo claim that Baker et al.’s analysis is inadequate since it does not distinguish between active participle morphemes and passive ones. Moreover, they argue against Jaeggli (1986) who posit a “fairly complex” process of theta assignment in passive constructions. This assumption has two different ways in active and passive sentences making it unsuitable to adopt with regard to this phenomenon, according to Gehrke and Grillo. In addition to the previous analyses, Gehrke and Grillo find that Collins’ (2005) smuggling approach which fronts a vp with an internal argument inside to get it closer to [Spec, T] and thus can satisfy the EPP feature rather problematic. Following Baker’s UTAH, Collins claims that the by phrase of the passive sentence originates in [Spec, v] and the surface subject originates in [Spec, V]. Gehrke and Grillo raise doubts about the ability of this approach to derive existential passive constructions such as “There was a Saubian killed.” Also, they maintain that Collins does not give a straightforward definition to the nature of smuggling in syntax.
Their proposed analysis is based on the fact that predicates which are able to successfully passivize have a complex structure of two sub events. The first one they call the CAUSE sub event and carries the external DP. The second one they call the BECOME sub event and carries the internal DP. Additionally they assume a VoiceP carrying two features; the first feature is discourse-related which chooses the suitable sub event to be fronted and the second feature is “quantificational” making the next phase more readable. These two features trigger the movement of the BECOME VP to its specifier and thus internal DP has its freedom to remain in situ in existential passive constructions or raise to [Spec, T] to check the EPP feature. Moreover, Gehlke and Grillo (2009) describe VoiceP as “responsible for grounding the event time in a particular way”. They also maintain that the presence of this VoiceP is obligatory in active sentences. Yet, they do not show whether it have the same features or it should have new ones to make it more suitable to active sentences.

Empirical evidence to their approach is brought up to validate its adequacy. For example, they maintain that only transitive predicates that contain BECOME sub event can passivize such as:

1- The antelope was killed by the lion.
2- * Two kilos were weighed by this lap top.

Also, their evidence is drawn from the ungrammaticality of preposition stranding in constructions such as:

1- * The argument was summed by the coach.
2- The argument was summed up by the coach.

This shows that the whole VP is fronted to [Spec, Voic]. Additionally, their approach gives an empirical evidence to Stative verbs which can passivize such as know and surprise because they do contain BECOME sub event, whereas Stative verbs such as appeal cannot passivize because no BECOME sub event is involved.

To conclude, although what Gehlke and Grillo (2009) have done is valid, their approach gives a rather complicated analysis to passivization phenomenon. It actually increases the number of VPs in a theory which calls for economy. We might find verbs with more than two sub events in a language and thus intricate analysis is needed. For instance, the semantics of Arabic verbs are really complicated so making it very difficult to adopt this approach. What we are looking for is a more adequate, economical and simpler analysis that can account for deriving short passives in SA.

Ahn and Sailor (2010) offer an important Minimalist syntactic analysis to canonical middle constructions “Bureaucrats bribe easily.” They maintain that there are also two middle constructions which can be treated within their analysis and which were not considered as middles in previous analyses. They call these constructions: make constructions “Clowns make good fathers.” and accommodation constructions “My car seats four people.” They claim that although these three types of middles share different “superficial differences”, but they have to be treated syntactically similar. They adopt two previous analyses. The first one is Kipper’s (1996) VoiceP which they extend to be the core of all active, middle and passive constructions. The second one is Collins’ (2005) smuggling approach to passive constructions in which a VP smuggling the internal argument to be closer to [Spec, T] than the external argument.

Before introducing their proposed analysis, they proved that make and accommodation constructions are types of middles. They maintain that although these two constructions differ in their surface structure, they have many things in common which make them offered the same analysis. For instance, the surface object in make constructions cannot be referential whereas the surface object in accommodation constructions can be referential. However, they share the fact that they seriously violate Baker’s (1988) UTAH in which” their surface subjects bear theta roles typical of objects, and vice-versa.” Also, they are not allowed to passivize and their subjects “behave alike thematically”.

Introducing the main properties of middles syntax in general, Ahn and Sailor (2010) prove that make and accommodation constructions should be treated as canonical middles. For example, one of the most important characteristic of middles is the notion of object promotion to serve as a surface subject:

1- Mobsters bribe bureaucrats easily. (Active)
2- Bureaucrats bribe easily. (Middle)

Additionally, another characteristic which is derived from Permuter and Postal’s (1984) “1- Advancement Exclusiveness Law” (1AEX) which states that a promoted argument cannot be promoted again. Thus a passivized sentence cannot undergo passivization again since its object has been promoted to the subject position and though cannot be repromoted. Ahn and Sailor apply this 1AEX on the three types on middles and find it perfect in catching the same notion and thus the ungrammaticality of passivized middle constructions:

1- * Bureaucrats are bribed easily.
2- * Clowns are made good fathers.
3- * My car is seated four people.

Given the above properties, Ahn and Sailor (2010) conclude that middles’ surface subjects originate internally within VP, and then get moved to a [Spec, T] to serve as surface subjects of their constructions. However, they do not explain how surface subjects move in constructions like make and accommodation which have external DPs.
Ahn and Sailor (2010) answer the above question by introducing a VoiceP with three “flavours” namely: active, passive, and middle. These types are in a complementary distribution and carry different features enabling them to derive each voice. For instance, the Voice° of middles has a feature requiring a fronted vp with its internal DP to [spec, Voice] and thus allowing the internal DP to be close to [spec, T] to move to it and satisfy the EPP feature carried by T°.

Finally, by introducing a VoiceP, Ahn and sailor (2010) manage to derive all types of middles by this amazing VoiceP. However, it is clear that this approach violates one of the most important as well as valid conditions which Chomsky (2005) calls the Impenetrability Condition stating that the domain of a phase vp cannot be involved in further syntactic operations since it has been sent to the interfaces and though cannot participate in the derivation of the sentence. We think that with some more modifications to this approach proposed here, we can introduce a VoiceP to SA passive constructions.

As can be seen, there is no straightforward approach to follow to derive passive sentences within the Minimalist Approach. For instance, in SA, there is only one study introduced by Soltan (2007) in which he claims that SA has no A-movement at all. We have argued that A-movement is a crucial characteristic of Minimalism that DPs need to get their thematic roles and then to satisfy the EPP feature in T° in SV orders. As for English, we have seen that the approaches followed above are NOT suitable to SA since they have some problems. For example, Collin’s smuggling approach does not explain the nature of smuggling in syntax. Moreover, Collins (2005) does not explain what the feature that triggers the smuggling of vP to VoiceP is. Also, Gehrke and Grillo (2009) focus on the nature of the predicate structure rather than the DP structure. Moreover, their analysis is also not suitable to SA since it increases the number of VPs in a theory that calls for economy.

For Radford (2009), we believe that it is suitable for English short passive. However, as has been said, the nature of passivization in SA is different from the nature of passivization in English. Finally, For Ahn and Sailor’s (2010) approach, we think that their VoiceP needs some modifications to make it fit the nature of passivization in SA.

Analysis:

In this section, we introduce our proposal to derive short passives in SA within the Minimalist Approach. Then, we use this proposal to derive a short passive sentence in SA in both orders VS and SV. The following points explain the features of our approach:

1- A voice° will be introduced similar to the one introduced by Ahn and Sailor (2010) which they use to derive Middles in English. However, some important modifications should be made in order to make this voice head fit SA passive sentences.

2- Following Gehrke and Grillo (2009) that this Voice° carries valued features, we claim that this voice° enters the derivation with a valued voice feature (+/- active). In other words, if the sentence is active the voice° which carries the (+active) feature will be introduced. On the other hand, if the sentence is non-active, a voice° with a (-active) voice feature will be introduced.

3- Since the process of passivization in SA is, as mentioned earlier, a morphosyntactic process in which changes occur on both the morphology of the verb and the structure of the sentence, this voice° has a particle carrying the passive morpheme as its specifier. This particle is picked up by the verb which it moves up to voice°.

4- Why should verbs move? Verbs are assumed to carry an unvalued voice feature (UV) that has to be valued. They are valued by moving up from V to voice° and picking up the passive morpheme. In other words, verbs move because they enter in a probe-goal relationship with the Voice° which carries a valued voice feature (-active).

5- Moreover, the voice° is affixal by nature in which it triggers the move of the verb to it.

6- Verbs enter the derivation with their base form and their unvalued voice features.

7- The surface subject originates in the [spec, V] and remains in situ in VS sentences, but in SV sentences, it moves up from [Spec, V] to [Spec, T] to satisfy the EPP feature in T°.

8- In VS sentences, the verb moves up from voice° to T° to satisfy the EPP feature in T°.

9- Finally CP enters the derivation with force features that determine whether the sentence is declarative, interrogative or exclamation.

10- Then, the derivation is sent to LF and PF simultaneously and separately to get its both logic and phonetic forms

11- Finally, the derivation is spelt out.

A very important point that should be drawn is that: what are the differences between the voice° we are introducing and the voice° introduced by Ahn and Sailor (2010)? As mentioned previously, they introduce a voice° with three flavors: active, passive, and middle. Moreover, they adopt the smuggling approach introduced by Collins (2005) which seriously violates Chomsky’s (2001, 2005) theory of phases. Moreover, the nature of smuggling is not clear in the syntax, whereas the head which we introduce does not depend on smuggling or any other processes which are not clear in the syntax. Additionally, our voice° has a valued feature of active or non-
active which means that it has two flavors only not four. Therefore, in a theory that calls for economy, it is better to have fewer types of rules, heads and principles to derive sentences. Therefore, a voice° with two flavors is enough at least for SA from our point of view.

Another difference that this voice° introduced in this proposal has a particle on its specifier carrying the passive morpheme and this is not available in Ahn and Sailor (2010). This is because, as mentioned previously, the process of passivization in SA is different from the process of passivization in English. For instance, SA does not allow the surface object in a passive sentence to be lexicalized, whereas English which certainly allows this kind of lexicalization.

The following syntactic tree will show how our proposal will work:

Now, we will apply our proposal on a short passive sentence in both orders a VS and an SV respectively:

(1) suriqa Ɂ al-bayt-u
stole-passive 3sg mas            the-house-Nom mas

The house was stolen.

The verb “saraqa” enters the derivation on its base form with an unvalued voice feature. Then the DP carrying unvalued case feature Ɂ al-bayt merges with it to form the VP Ɂ al-bayt saraq. Since the sentence is in passive, a voice° with a valued [-active] feature is introduced to the derivation forming a voice bar. The particle now joins the derivation as [spec, Voice] forming a VoiceP. Now, the verb starts probing upward to value its unvalued voice features. Consequently, it locates the goal voice° which carries a valued voice (-active) feature. Simultaneously, the voice° triggers the movement of the verb for three reasons. First the voice head is affixal by nature. Second, the verb moves to value the voice feature carried by the verb “saraqa”. Finally and most importantly, to allow the verb to pick up the particle (the passive morpheme) available in [spec, Voice]. Now a T° with φ features and valued nominative case feature enters the derivation forming a T bar. This T carries an EPP feature that needs to be checked. Since the sentence is a VS sentence, the V “suriqa” will move to T° to satisfy the EPP feature leaving behind it a copy and simultaneously T will check the unvalued case feature carried by the DP Ɂ al-bayt with nominative case. Finally, a CP enters the derivation with a declarative force feature marking the sentence as declarative. The following tree structure will show the mechanism of deriving sentence (1) above:
(Note: a word with a strikethrough means that the word has moved up and left behind a copy.)

Now, let's see when we have an SV short passive sentence how the derivation proceeds:

(2) ʔal-bayt-u suriqa
The-house Nom mas stole-passive 3seg mas

The house was stolen.

The derivation will follow the same previous steps followed in a VS sentence except that here the DP moves up to [spec, T] to satisfy the EPP feature on T° and the verb remains in voice°. The following tree structure will show the mechanism of the derivation of sentence (2) above:

It is worth mentioning that the VS order has only one kind of move which is head movement in which the verb moves in a cyclic fashion from V° then to Voice° to T° whereas in an SV sentence, we notice that there are
two types of move which are head movement in which the verb moves from $V^o$ to $Voice^o$ and A-movement in which the DP moves from $[spec, V]$ to $[spec, T]$. This goes against Soltan’s claim (2007) that SA has no A-movement at all.

An important word to spell here is that according to Chomsky’s theory of phases (2005) in which he claims the memory of a human being is limited, so the derivation of a sentence is sent to LF and PF by phases which should have external arguments. Therefore, only VP and CP are considered phases by Chomsky. Moreover, Soltan (2007) claims that SA passives have no VP since they have no external arguments. We do not adopt Soltan’s claim which agrees with Chomsky’s theory of phases. Thus, the whole CP of a passive sentence will be sent separately to LF and PF in which copies of verbs and DPs will be given neither a phonetic form nor a logic form. That is only DPs and Vs that carry valued features will be given phonetic and logic forms and then sent to Spell-out.

Finally, the success of deriving the above two sentences shows that our proposal is on the right track.

**Conclusion:**

As has been seen, the approach we have followed is purely minimalist in which A-movement is an essential feature in deriving SV sentences in SA. Moreover, the approach expresses the nature of passivization in SA by introducing a Voice° having a valued (-active) feature and the passive infix as its specifier to be picked up by the verb. We believe that this approach can be extended to other contexts that passives in SA occur in such as prepositional passives and passives with case assigners.

**Appendix:**

### Symbols of Standard Arabic Sounds:

1. **Consonants:**
   - $\emptyset$: voiceless glottal stop
   - b: voiced bilabial stop
   - t: voiceless dental stop
   - ð: voiceless dental fricative
   - d: voiced alveolar affricate
   - H: voiceless pharyngeal fricative
   - x: voiceless velar fricative
   - d: voiced dental stop
   - δ: voiced dental fricative
   - r: voiced alveolar trill
   - z: voiced alveolar fricative
   - s: voiceless alveolar fricative
   - Š: voiceless palato-alveolar fricative
   - S: voiceless emphatic alveolar fricative
   - D: voiced emphatic alveolar fricative
   - T: voiceless emphatic dental stop
   - Đ: voiced emphatic inerdental fricative
   - ĉ: voiced pharyngeal fricative
   - ġ: voiced uvular fricative
   - f: voiceless labiodental fricative
   - q: voiceless uvular stop
   - k: voiceless velar stop
   - l: voiced alveolar lateral
   - m: voiced bilabial nasal
   - n: voiced alveolar nasal
   - h: voiceless glottal fricative
   - w: voiced labio-velar glide
   - y: voiced palatal glide

2. **Vowels:**
   - i: high front unrounded
   - ii: high front unrounded
   - a: low unrounded
   - aa: low unrounded
   - u: high back unrounded
   - uu: high back unrounded

   (i and ii are pronounced front or central according to their adjacent consonants)

3. **Other Necessary Abbreviations:**
   - 1-Nominative: Nom
   - 2-Accusative: Acc
   - 3-Genitive: Gen
   - 4-Dative: Dat
REFERENCES