Unaccusative verbs in Modern Standard Arabic

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Abstract

Purpose – The purpose of this research was to analyze the unaccusative verb in Modern Standard Arabic (MSA) within the framework of MP in order to answer the research question: How does the single argument of an unaccusative verb, that carries the theme theta role and is generated in the object position, receive a nominative case without moving to the [Spec, vP], which is the base subject position?

Design/methodology/approach – The analysis in the paper was based on the framework of Minimalist Program (MP) which was proposed by Chomsky (2000). MP concerns economy, simplicity and efficiency in the connection between sound and meaning. Essentially, Chomsky (2000) proposes that faculty of language (FL) contains a computational system that interfaces with external systems, sensorimotor systems and systems of thought. The computational system is based on three operations. The first operation is merge, which combines two syntactic objects to form a new one. It is presented in binary branches that project a hierarchical level. The second operation is agree which establishes syntactic relation for case assignment and agreement. The final operation is move, which composes merge and agree.

Findings – The analysis demonstrated that the sole argument of an accusative verb receives the nominative case *in situ*. This is due to Locality of Matching in which the agreement holds between the [nom] case on T and NP in internal argument of VP. This is because there is no intervening NP between T and the sole argument in internal argument of VP, which is a base object position.

Originality/value – This research shows that the single argument of the unaccusative verb receives the nominative case *in situ*. This analysis observes the economic considerations of MP as well as respects the UTAH hypothesis, which rules out the structures where the theme asymmetrically appears as a specifier or a complement.

Keywords Intransitive verb, Unaccusative verb, Nominative case, Locality of matching

Paper type Research paper

Introduction

The unaccusative hypothesis (UH) posits that intransitive verbs are subdivided based on their syntactic structures. Intransitive verbs are categorized into *unaccusatives* such as "fall", "arrive", "sleep" and *unergatives* such as "dance", "run", "sing" (Perlmutter, 1978). An intransitive verb is considered a one-place predicate or a single argument verb (Felser and Wanner, 2001). The single argument carries a *theme theta* role for unaccusative verbs and an *agent theta* role for unergative verbs (Adger, 2003). Based on the Uniformity of Theta Assignment Hypothesis (UTAH), the *theme* argument of the verb is realized in an object position (Adger, 2003). Perlmutter (1978) claims that unaccusative verbs occur in VP and cannot assign case. Hence, its internal argument moves, within the domain of VP, to the external argument (base subject position) to receive the nominative case. Modern Standard Arabic (MSA), which is the main concern of this research paper, has the same classification as English regarding intransitivity. In MSA, unergative verbs have a subject that carries an *agent* theta role and unaccusative verbs have a subject that carries

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a *theme* theta role. Moreover, this sole argument in both types is syntactically equivalent to the direct object of a transitive verb (Al-Qadi, 2015). Al-Khawalda (2011) states that the Arabic intransitive, *wasala* (arrived-he verb) in (1) below, selects one argument, *ʔlwalad-u* (the-boy-nom), as a subject, which is generated and receives a nominative case mark in the specifier of VP.

(1) wasala ʔlwalad -u

arrived-he the-boy-NOM.

"The boy arrived."

However, according to the minimalist program (MP) proposed by Chomsky (2000), unaccusative verbs are different from verbs that have a subject in that they have a little *v* which does not have a specifier (Adger, 2003). Accordingly, it is not possible for the sole argument of an unaccusative verb to move from the object position (the *theme* place) to the specifier of *v*P [Spec, *v*P] to receive the nominative case. However, the MP provides another solution without affecting the underlying structure.

Research objective and question

The purpose of this research was to extend the application of MP to MSA and to analyze the unaccusative verb in MSA within the framework of MP in order to answer the research question:

How does the single argument of an unaccusative verb, that carries the *theme* theta role and is generated in the object position, receive a nominative case without moving to the [Spec, *v*P], which is the base subject position?

Theoretical framework

The analysis in the paper was based on the framework of Minimalist Program (MP) which proposed by Chomsky (2000). MP concerns economy, simplicity and efficiency in the connection between sound and meaning. Essentially, Chomsky (2000) proposes that faculty of language (FL) contains a computational system that interfaces with external systems, sensorimotor systems and systems of thought. The computational system is based on three operations. The first operation is *merge* which combines two syntactic objects to form a new one. It is presented in binary branches that project a hierarchical level. The second operation is *agree* which establishes syntactic relation for case assignment and agreement. The final operation is *move*, which composes *merge* and *agree*.

Literature review

Argument structure

In syntax, Trask (1993, p. 23) defines an argument as "a noun phrase bearing a specific grammatical or semantic relation to a verb and whose overt or implied presence is required for well-formedness in structures containing that verb."

Basically, the argument can be defined based on the syntactic and semantic roles. The position of an argument in the sentences, such as an object, object, and oblique, refers to syntactic roles. The semantic relation between the verb and its arguments such as agent, patient and recipient, refers to the semantic roles. It is worth mentioning that there is no direct correlation between semantic roles and syntactic functions. As shown in (2), different

semantic roles can be held in the subject position. Thus, there is no parallelism connection between thematic roles and syntactic positions (Al-Qadi, 2015).

	Subject	Verb	Object
(2)	a. [agent The boy]	broke	[patient the window.]
	b. [patient The window]	was broken.	
	c. [patient The boy]	arrived.	

Levin (1993) points out that each verb requires a specific number and types of arguments to be well-formed in a grammatical structural which is called a-structure. To illustrate, the transitive verb needs two arguments, one is a subject and the other is an object (e.g. the boy broke the window). However, the intransitive verb needs only a subject (e.g. Ahmed runs). However, in other structures, the subject is not an *agent* since they do not perform an action (e.g. the window was broken) and (e.g. Ahmed liked art). The semantic role of the window is *patient,* and the semantic role for the Ahmed is the *experiencer*. For the unaccusative verb, the structure is more complex, there is a monadic verb that has one argument which carries *theme* role in the subject position. However, other theta roles, such as *agent* is normally carried by this position. Thus, the UH illustrates the underlying argument structures of both types of an intransitive verb, unaccusative and unergative.

The Unaccusative Hypothesis

The UH which proposed by Perlmutter (1978) clarified that intransitive verbs are divided into two classes:

a- Unergatives: its subject carries *agent* theta role.

NP [VP V] *unergative:* John runs.

b- Unaccusatives: its subject carries *theme* theta role.

[VP V NP] *unaccusative:* John arrives.

As shown above, each type has a different underlying syntactic structure. The VP for the unergative verb has an external argument but no direct internal argument. However, VP for the unaccusative verb has a direct internal argument but no external argument.

Levin *et al.* (1995) explains that intransitive verbs display different syntactic configurations, in which unaccusative verbs take surface subjects that correspond to a D-structure (deep) object, and unergative verbs take a surface subject that makes parallelism mapping to D-structure subject without object.

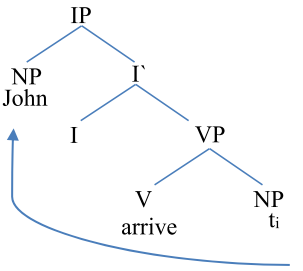
Burzio (1986) points out that the ability of the verb to assign an *agent* theta-role to its subject is lost when it does not have an external argument; as a result, an accusative case mark cannot be assigned. Consequently, only the nominative case is assigned to sole argument of the intransitive verb.

However, based on the analysis of Perlmutter (1978), *themes* of unaccusative verb occur in object positions, but as such verbs cannot assign a case to its sole argument that caries *theme* theta role, as mentioned above, the sole argument, therefore, has to move to the external

argument (subject position). The subject in (3) moves to an external position of VP to gain a nominative case as it is shown in (4).

(3) John arrives.

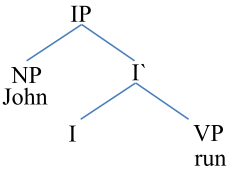
(4)



In contrast, the sole argument of unergative verbs is generated in the subject position at D-structure and S-structure. Therefore, there is no such movement is required in (5) as illustrated in (6).

(5) John runs.

(6)



Unaccusative predicate in Arabic

In MSA, intransitive verbs follow the same classification as English unergative verbs and unaccusative verbs. Arabic unaccusative verb, which is the main concern of this research, has a sole argument NP, which carries the *theme* theta role and is equivalent to the direct object of Arabic transitive verb. However, unlike direct object which always carries accusative case, the sole argument NP of unaccusative verb carries a nominative case. Moreover, the nominative case is overly marked with the case marker–u (Al-Qadi, 2015). Unaccusative verb moves its sole argument NP to the external position of VP to gain a nominative case (Al-Qadi, 2015; Alrashed, 2012). However, the MP provides an alternative analysis that meets its economic considerations.

Arabic case marking

Arabic is characterized by the broad use of case-marking, as it allows the word order to be varied. Generally speaking, subjects carry nominative cases, objects carry accusative cases and objects of preposition carry genitive cases (Alrashed, 2012).

Previous studies on Arabic unaccusative verbs

The pattern of Arabic verbs is trilateral which means it consists of three consonants. The verb forms are non-concatenative in nature which means the consonants are non-adjacent. Therefore, the argument structure of the verb is determined by the morphological structure of

the verb. Abdel Wahed (2021) investigates nine trilateral verb forms and she finds that the three forms exhibit the characteristics of an unaccusative verb.

Form 1

Variant A: faʕala

"gamada al-nahr-u

Freeze the river-nom

The river froze." (Abdel Wahed, 2021, p. 50)

Variant B: faʕila

"fariħa al-ʀagul-u

To be happy the man-nom

The man was happy." (Abdel Wahed, 2021, p. 53)

Variant C: faʕula

"ħasuna al-wagh-u

to be beautiful the face-nom

The face was handsome." (Abdel Wahed, 2021, p. 54)

Form 4 Denominative Verbs ʔafʕala

"ʔaɵmaʀat al-ʃagaʀat-u

to bear fruit the tree-nom

The tree bore fruit." (Abdel Wahed, 2021, p. 58)

Form 9 ʔifʕalla

"ʔiħmarʀa wagh-u al-bent-i

to be red face-nom the girl-gen

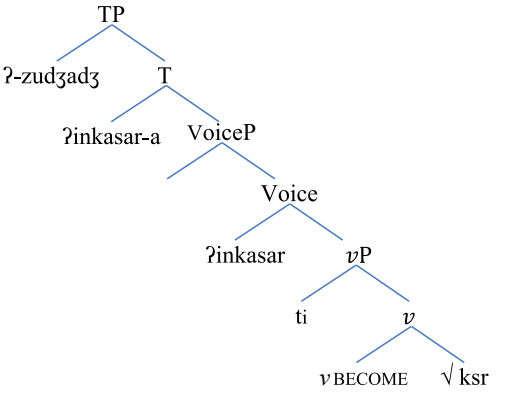
The girl's face was red." (Abdel Wahed, 2021, p. 61)

Based on VP-split hypothesis, Abdel Wahed (2021) indicates that all these forms require a single argument that is located in complement position in the vP and it carries the *patient* or *theme* theta role. She indicates that single argument is moved to the Spec of vP to get the nominative case which is c-commanded by T. Also, she indicates that both Classical Arabic and Modern English show the same structural analysis of the unaccusative verbs.

Also, a few other studies have investigated Arabic unaccusative verbs. Al-Qadi (2015) examines causative alternation in Arabic and proposes a different nature of little *v* to express a different event; cause, become and do. Al-Qadi (2015) further proposes a voice head that converts the root to verb or noun. The voice head is a projection that is located between TP and *v*P. The *ʔin-kasar-a* in (7) is considered an unaccusative based on its sematic meaning. Its sole argument is in the external argument of the *v*P. The nominative case in T, which is strong, triggers a movement of the sole argument from [Spec, *v*P] to [Spec, TP] in order to receive its nominative case. The nominative case is overtly realized by the case marker-*u* in the NP, as illustrated in the tree diagram in (8).

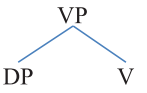
(7) "ʔin-kasar-a ʔ-zudʒadʒ-u"
broke the-glass -NOM
"The glass broke." (Al-Qadi, 2015, p. 87)

(8)



Alrashed (2012) analyzes unaccusative verbs based on Chomsky's (1995) approach, in which the unaccusative verb, that has neither an object nor an external argument, places its sole argument as a subject on [Spec, VP], as illustrated in (9).

(9)



Another study that is conducted on passive verb which is akin to unaccusative verb in which both have thematic subject that appears carrying Nom-Case. Ben Ayeche (2018) analyzes the passive verb in Arabic based on MP and he concludes that the verb *kasar* in (10) is derived, as in (11) below, with unvalued voice features which is valued by the VoiceP that carries a passive morpheme [*u-i*]. VoiceP is a weak phase; therefore, it does not allow the verb *kasar* to assign accusative case to the argument *l-baab* because it does not have an *agent*. Because there is no NP that intervenes between *l-baab* and T, T assigns Nom-Case feature by *agree* operation. At the result, the single argument receives the [Nom] case *in situ*. This indicates

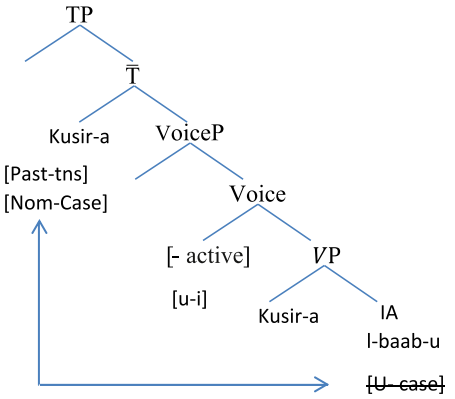
that no *movement* operation is required to assign a case feature to the thematic subject of the passive verb and the unaccusative verb.

(10) kusir-a l-baab-u.

broken-Pass- the-door-Nom.

"The door was broken."

(11)



MP analysis

Unaccusative verb analysis in previous studies violates the economic considerations of MP. First, the analyses that are provided by Alrashed (2012) and Al-Qadi (2015) violate the UTAH hypothesis, which rules out the structures where *theme* asymmetrically appears as a specifier or a complement. The Uniformity of θ-Assignment Hypothesis (UTAH), which is proposed by Baker (1988), imposes that each theta role holds a unique phrase-structural configuration in the Hierarchy of Projections as follows:

a. When NP is a daughter of *v*P, it is *an agent*.

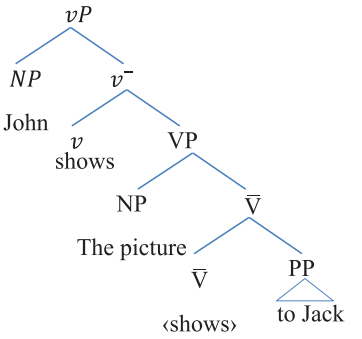
b. When NP is a daughter of VP, it is a *theme*.

c. When PP is a daughter of $\bar{V}$, it is *goal*.

This can be evident by analyzing three-place predicates such as *give* and *show* (ditransitive verb). In the sentence (John shows the picture to Jack.), the subject is an *agent*, the direct object is a *theme* and the indirect object is a *goal* as shown in (12). Following UTAH

hypothesis makes the same VP shell analysis extends from one- place predicate to three-place predicate.

(12)



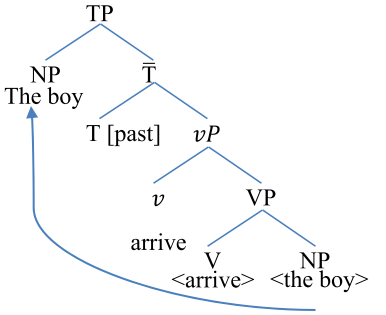
Therefore, the *theme* argument of the unaccusative predicate is the daughter of VP by derivation.

Unaccusative verbs, according to Adger (2003), vary from verbs with a subject in that they lack [Spec, *v*P] because the unaccusative verb is semantically non-causal. Therefore, moving the sole argument of the unaccusative verb is considered as massive violation of UTAH hypothesis. However, these violations are avoided by adopting an MP analysis.

In MP, as Adger (2003) illustrates that T has a nominative case, while little *v* bears an accusative case. However, in the case of unaccusative verbs, they do not assign accusative cases[acc]. This is the reason why these predicates are called *unaccusatives*. Since the case feature is not related to the semantic properties of the theta role, such as *agent*, *theme* and *locative*, it is considered an uninterpretable feature used to arrange the nominal phrases' distribution in the syntactic structures. The case feature is considered an uninterpretable feature that must be valued and checked. Thus, an uninterpretable case feature [*u*case: nom], that T bears, values the case feature in the NP by the *agree* operation (Adger, 2003). To illustrate, the English sentence (13) is derived as in (14).

(13) The boy arrived.

(14)



In this structure the verb *arrived* is an unaccusative verb which has a sole argument as *theme*. According to UTAH, this argument should be merged with the verb under the VP. Then, the verb raises to *v* in *v*P, which does not have a specifier and accusative case feature. Even though NP, *the boy*, is generated in the object position, its [case] feature is valued by the [nom] that is carried by T. This is done based on the *Locality of Matching* which is defined as follows:

"Locality of Matching: Agree holds between a feature F on X and a matching feature F on Y if and only if there is no intervening Z[F]." (Adger, 2003, p. 195).

The intervening is defined as follows:

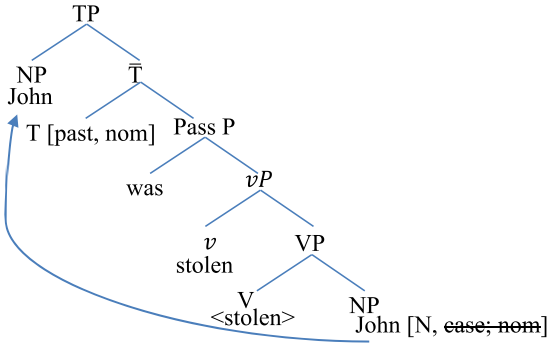
"Intervention: In a structure [X . . . Z . . . Y], Z intervenes between X and Y if X c-commands Z and Z c-commands Y." (Adger, 2003, p. 195).

In (14), there is no NP in [Spec, *vP*] that intervenes between T and NP in the object position. Accordingly, [case] feature in *the boy* is checked and valued via [nom] case that is carried by T. Adger (2003) points out that because the Extended Projection Principle (EPP) feature in English is strong, it triggers *N* feature in *the boy* to move to [Spec, T] to satisfy the EPP feature because there is no intervening NP between them.

Checking the case feature *in situ* can be evident by the analysis of passive voice which has one argument that carries *theme* or *patient* theta role. Based on UTAH, it is merged as a daughter of VP. Adger (2003) points out that the passive verb is similar to the unaccusative verb in that the passive cannot assign an accusative case to its object as well as it has a thematic subject. In sentence (15) which is derived in (16), finite T bears an uninterpretable case feature [*u* case: nom] and the argument of the passive verb should be able to *agree* with T in case features as there is no NP that intervenes between the T and *John*. So, the argument receives the case feature *in situ*. Then, it raises to the specifier of TP to satisfy EPP feature.

(15) John was stolen.

(16)



Data analysis and discussion

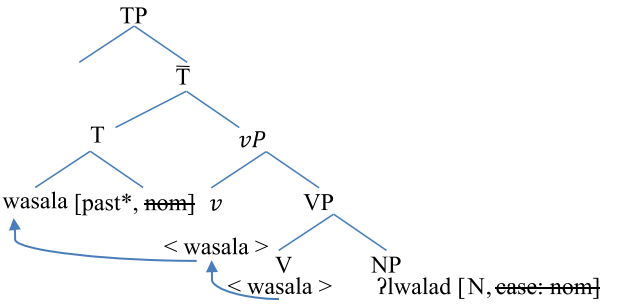
In contrast to the previous studies which propose that the *theme* argument receives the nominative case via *move* operation, MP provides a more economical solution by providing a nominative case for the *theme* argument via the *agree* operation. To illustrate, sentence (17) is derived as in (18).

(17) wasala ʔlwalad-u

arrived-he the-boy-NOM

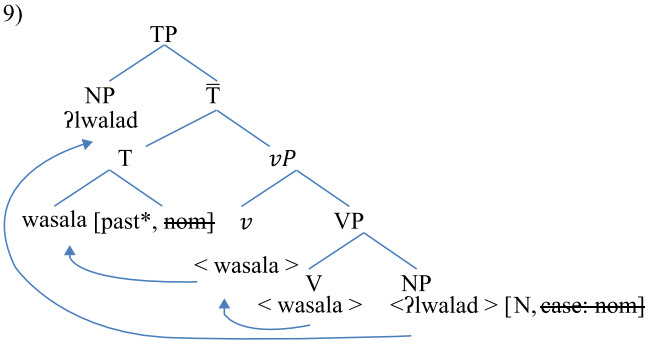
"The boy arrived."

(18)



Firstly, the verb *wasala* is an unaccusative verb, which means it does not assign accusative case feature [acc] in the sentence and it does not have an *agent* in its specifier. The NP (*ʔlwalad)* is its sole argument and carries a *theme* theta role. Based on UTAH, it is merged with the verb under VP in the object position. Since T bears a case feature [nom], the single argument of unaccusative should be able to agree with T in case features based on *Locality of Matching*, as there is no NP that intervenes between the T and NP *ʔlwalad*. Hence, the single argument receives the nominative case *in situ*. Consequently, the subject of an unaccusative verb is generated in the object position. In MSA, the past tense in T is strong and triggers the verb to move to the T head of TP (Aoun *et al.*, 2009). In the SVO order, the EPP in the T is strong (Fakih, 2016). Therefore, the sole argument is triggered to move to the specifier of T to satisfy the EPP feature as illustrated in (19).

(19)



This analysis is in line with the assumption by Adger (2003) in which an unaccusative verb has *v*P, but it is not semantically causal. Also, it is similar to Ben Ayeche's (2018) finding in which the thematic subject of the passive verb in Standard Arabic gains the [Nom] case from T *in situ* by *agree* operation. However, this finding contradicts with Al-Qadi's (2015) finding in which she states that nominative case is checked locally by triggering the NP in the [Spec, *v*P,] to move to [Spec, TP].

Implications and suggested further studies

The researcher would recommend conducting a further research that investigates in how the three different kinds of case are assigned based on MP analysis to reveal a deep understanding of the arguments structure in MSA.

Conclusion

This paper addressed the research question *How does the sole argument of an unaccusative verb, that carries the theme theta role and is generated in the object position, receive a nominative case without moving to the [Spec, vP], which is the base subject position?*

To answer it, unaccusative verb in Arabic was analyzed based on MP. The analysis demonstrated that the sole argument of an accusative verb receives the nominative case in *situ*. This is due to *Locality of Matching* in which the agreement holds between the [nom] case on T and NP in internal argument of VP. This is because there is no intervening NP between T and the sole argument in internal argument of VP, which is a base object position.

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