

Revisiting the Morphosyntactic Categorization of Modals in Jordanian Arabic

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Abstract

This paper is mainly concerned with delineating the categorical status of Jordanian Arabic modals. In this regard, the paper defends an alternative perspective of the conventional 'verbal, pseudo-verb and particle' view of the morphosyntactic categorization of modals in Arabic in general and in JA in particular. It is proposed therefore that JA modals *laazim*'must', *mumkin/yemkin* 'may/might' and the modal *bigdar* 'can/could' belong to an 'open/null category' and not to any of these conventional categories. Furthermore, the paper shows that JA modals exhibit inconsistent and non-coherent morphosyntactic behavior. Based on this fact, it is concluded that JA modals form quite a heterogeneous rather than homogenous group. Crosslinguistically, the heterogeneity and the proposed open/null category of JA modals lend further evidence to the difficulty to universally define the category of modals on formal grounds (Machova, 2013).

Keywords: Modals, verbal- Pseudo and Particle Analysis, Jordanian Arabic, Categorization, Heterogeneity

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قراءة نحوية وصرفية مغايرة في التصنيف الفعلي وشبه الفعلي والجزئي للتراكيب الدالة على
الاحتمال والضرورة في اللهجة الأردنية

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ملخص

هدف هذه الدراسة إلى تقديم قراءة نحوية وصرفية للأفعال الدالة على الضرورة والاحتمال والاستطاعة مثل "لازم" و"ممكن" و "بقدر" في اللهجة الأردنية. وتتطرق هذه الدراسة بالأخص إلى الإجابة عن السؤال "تحت أي قسم من أقسام الكلام يمكن تصنيف هذه التراكيب؟". وأشارت الدراسة لكافة التصنيفات النحوية والصرفية التي قُدِّمت حول هذه التراكيب في الدرس اللغوي العربي المعاصر، والذي يصنّف هذه التراكيب تحت تصنيفات مثل: الأفعال، أشباه الأفعال وروابط الكلام. وأوضحت الدراسة أن هذه التراكيب تتصف بخصائص نحوية وصرفية غير متجانسة الامر الذي يميزها عن باقي التصنيفات النحوية والصرفية الشائعة كالأفعال وأشباه الأفعال وروابط الكلام. وعليه فقد ذهبت الدراسة إلى أنه يجب تصنيف هذه التراكيب تحت تصنيف نحوي وصرفي "خاص". وتعد نتائج هذه الدراسة بمثابة دليل آخر يضاف إلى نتائج دراسات عالمية أخرى أكدت تعذر تصنيف مثل هذه التراكيب تحت أي من أقسام الكلام المعروفة.

الكلمات الدالة: الأفعال الموقفية، التصنيفات النحوية والصرفية، اللاتجانس والتغاير النحوي والصرفي.

1.Introduction

One of the most intriguing issues in the literature of modality in Arabic is the fact that the ‘the morpho-syntactic category’ of modality in Arabic is obscure (Althawab, 2014). The obscurity comes from three major facts. First, the vast majority of, if not all, the studies of modality in Arabic have classified modal expressions under different categorizations. Some studies classified them as verbs (Ali M., 1994; Althawab, 2014; Fassi Fehri, 1993; Holes, 2004; Maruf, 2011; among others), some others classified them as pseudo-verbs (Brustad, 2000) and others as particles (Al-Harbi, 2011 and others). In fact, some studies subsumed modals under many different categorizations in one single paragraph as evident in the following example taken from Vanhove M. et al. (2009, p.16) “As an epistemic auxiliary, *xəṣṣ* expresses near-certainty. For the expression of the value of ‘to be under the obligation’ described above, it is frozen in the 3rd person masculine singular of the perfective, suffixed with personal pronouns, but in addition, it is followed with the imperfective form of ‘be’, *ykuun*. It thus forms a pseudo-verb conjugation, *xəṣṣ-u ykuun* he/it must be”. The modal *xəṣṣ* is given three different categorizations all together without any explanation about these advocated classifications: an epistemic auxiliary, a frozen form and a pseudo-verb.

Second, the aforementioned studies among others addressing modals in Arabic subsumed modal expressions under some nebulous categorization without providing the empirical evidence nor the attested data for such categorization. In other words, whenever modals are discussed in these studies, they are addressed as verbs, particles or pseudo-verbs in a random fashion without providing any explanation as why they were categorized as such or even providing the evidence upon which such categorizations are assumed. This is a prevailing shortcoming of all the aforementioned studies about modality in Arabic in general and in JA in particular.

Third, the aforementioned studies among many others argued that modals in Arabic form a homogenous category similar to English where modals demonstrate a consistent morphosyntactic behavior and thus form a separate and homogenous category.

The main objectives of the current paper are four fold. First, the paper explores the morphosyntactic behavior of modals in JA in an attempt to delineate the categorical status of JA modals. Second, the current paper attempts to defend an alternative perspective of the conventional ‘verbal, pseudo-verb and particle’ view of the morphosyntactic categorization of modals in Arabic in general and in JA in particular. It is argued therefore that modals in JA belong to an ‘open/null category’ and not to any of the conventional categories of verbs, pseudo-verbs and particles that are assumed in the literature. The motivation for this ‘open’ alternative view comes from the fact that the conventional view fails to account for the mixed and intermediate behavior of modal expressions in JA which exhibit idiosyncratic properties that cannot be accounted for by such conventional categorizations.

The third objective is to provide a detailed morphosyntactic investigation of modals in JA based on a body of empirical evidence, diagnostics and well attested data from JA and from other dialects of Arabic whenever possible. While this might sound intuitive for any linguistic research, it constitutes a major challenge to the previous literature on modality in Arabic especially if we know that the assumed categorization of modals in Arabic in these studies is nothing but a mere conjecture based on no empirical evidence whatsoever.

Fourth, the current paper seeks to provide a counterargument for the claim that modals in Arabic in general and in JA in particular form quite a homogenous group with respect to their morphological and syntactic properties. Typologically, such counterargument demonstrates that the category of modal expressions cannot be crosslinguistically based on formal grounds. This empirical finding is consistent with many other cross-linguistic findings where modals belong to heterogenous rather than homogenous grouping as will be discussed later (See Machova, 2013 for further details and examples from cross-linguistic data).

This paper is organized as follows. In sub-section 1.1, I present an overview of modality definitions. In sub-section 1.2, types of modality are discussed. In section 2, I present the JA modals under discussion in this paper. In section 3, I discuss the methodology adopted in the current paper, the JA dialects under investigation and the data collection techniques. In sections 4.1, 4.2 and 4.3, I provide counterarguments against the verbal

analysis, the pseudo-verb analysis, and the particles analysis respectively. In section 5, I outline some remarks on the heterogeneity of JA modals and in section 6 I conclude the paper.

1.1 Modality: Definition

Palmer (1979,1986) and Mitchell and El-Hassan (1990) reported that modality refers to the speaker's attitude toward what he says/regarding the content of a sentence. Modality has also been referred to as "the manner in which the meaning of a clause is qualified so as to reflect the speaker's judgment of the likelihood of the proposition of the sentence being true" (Quirk et al., 1985, p. 219). Portner (2009, p.1), for instance, states that modality is " a linguistic phenomenon whereby grammar allows one to say things about, or on the basis of situations which need not be real". In the recent trends of formal and logical semantics, meaning is viewed as a truth condition: the facts and conditions that need to obtain in reality in order for a proposition to be true. In other words, each proposition must yield a truth value either true (matching reality) or false (not matching reality) (See Saeed, 2009 for further details on truth-conditional meaning and logical and formal semantics). Based on this premise, modals are analyzed as truth-conditional operators in natural languages that encode modal force (i.e. necessity or possibility) that gets relativized with respect to different types of contextual assumptions (Kratzer, 1981, 1991; Lewis, 1986; Brennan, 1993; Papafragou, 2000; among many others). Therefore, a modal proposition includes "the information that the basic proposition it contains is necessarily or possibly true" (Kearns, 2000, p. 52). In other words, a necessarily true proposition is the one which is true in any circumstances and cannot be false. However, a possibly true proposition is the one which may or may not be true (Kearns, 2000).

1.2 Types of Modality

The most seminal classification of modality is a three-way classification where modality has three major types: epistemic modality, deontic modality and dynamic modality. This division was used in many works as Lyons (1977); Palmer (1990, 2001); Frawley (1992);Kearns (2000); Huddleston & Pullum (2002); Traugott & Dasher (2002); as well as in various other studies.

Epistemic modality is so called because it concerns what is known, from the Greek word *episteme*, meaning ‘knowledge’ (Kearns, 2000; Huddleston & Pullum, 2002). It is primarily concerned with “the necessity or possibility of a proposition being true in fact, given what is already known. In other words, epistemic modality expresses conclusions drawn from the actual evidence about the range of possibilities for what is the case in reality” (Kearns, 2000, p. 53).

There are two main sub-types of epistemic modality: epistemic possibility and epistemic necessity. The former is concerned with the truth of a proposition that is possibly true given what is already known as in (1). The latter, on the other hand, pertains to a proposition that is necessarily true given what is already known as shown in (2)

(1) It might rain tomorrow.

(2) It must be raining outside; your clothes are wet.

The second major type of modality is the deontic modality. The term ‘deontic’ comes from the Greek word ‘*deon*’, meaning ‘binding’ because this type of modality pertains to imposing obligation and giving permissions (Huddleston and Pullum, 2002).

There are two subtypes of deontic modality: deontic necessity and deontic possibility. Deontic necessity expresses what is required or what is obligatory for someone to do by the name of certain rules, laws, binding force, morals, etc. Such meaning is represented in sentence (3) below where all students are required to wear a uniform to abide with the school regulations. This reading is expressed by the modal *must*. However, deontic possibility expresses what is allowed or permitted as shown in sentence (4) where the speaker is giving the subject of the sentence the permission to leave. This reading is expressed by the use of the modal *may*.

(3) All students must wear a uniform.

(4) You may leave the room now.

The third type of modality is the dynamic modality which concerns two basic notions: ability and volition or willingness (Leech, 2004). Sentence (5) exemplifies the ‘ability’ interpretation as indicated by the modal *can*; and sentence (6) illustrates the volitional reading as expressed by the modal *will*.

external permission and is thus a modal with a deontic possibility reading and can be interpreted as ‘It is allowed that.....’.

Furthermore, the modal *bigdar* ‘can/could’ in JA is used to express dynamic modality (i.e. a modal that expresses ability). It can also be used to express a deontic reading. Consider these examples:

- 4- sarah bi- t- gdar t- soog el-
seeyarah.
Sarah imperf.3.fem.sing.can subju3.fem.sing.drive the car.
‘Sarah can drive a car.’
- 5- bi -t- gdar-uu t- fta7 -uu el- awraq el’aan.
Imperf.2.can.masc.pl subju. 2. open.masc.pl the papers
now.
‘You can open exam papers now.’

In (4) the modal *bigdar* ‘can/could’ relates to the ability of the individual concerned to do an action. However, in (5) *bigdar* ‘can/could’ relates to giving permission in the sense that it expresses the existence of an external permission (i.e. deontic possibility).

3. Methodology

In this section, I discuss the methodology adopted in this paper. This includes the JA dialects based on which the data of the study has been selected. I also outline the informants of the study and the major data collection and elicitation techniques.

3.1 Data of the Study

The data presented in this study is based on JA. Jordanian Arabic is a Levant dialect of Arabic spoken in the country of Jordan. JA belongs to the South-Central Semitic languages, most closely related to Aramaic, Amharic, Hebrew, Ugaritic and Phoenician (cf. Comrie 1987). JA comprises many types of dialects including: Northern rural dialects, Central Ammani dialect, Southern rural dialect, Central and Southern Bedouin dialects. The current paper investigates the Northern and Southern rural dialects which are assumed to be a genuine representative of JA (Al-Wer, 2007). The motivation for excluding the Ammani dialect is due to diglossic and sophisticated linguistic context in Amman which has undergone major language change and dialect contact in the past few years as reported by the

seminal study of Al-Wer, (2007, p.1) “In dealing with the Amman data, this issue is immaterial because in this situation we are not dealing with a continuation of change in a dialect, but with the formation of a dialect from scratch. Amman had no dialect simply because it did not have a native and stable population”.

3.2 Informants

Data was collected from 100 native speakers of JA representing the Northern rural dialect in Irbid and the Southern rural dialect in Karak and Ma’an. All the informant information along with their regions, gender, age and number is given in Table (1). There were no discernible differences with regard to the intuition of these speakers in the morphosyntactic elicitation test.

Table (1) Informants of the study: demographic information

Age Range	Gender	Region		Total
		South [Karak, Ma’an]	North [Irbid]	
20s	Female	8	8	
	Male	9	8	
30s	Female	8	9	17
	Male	8	9	17
40s	Female	9	8	17
	Male	9	7	16

3.3 Techniques and Data Collection

The current study implemented tasks to elicit data for the morphosyntactic analysis of modals in JA. To this end, I used a grammaticality judgment task where JA speakers were asked to orally evaluate the given sentences from grammatically acceptable, awkward and grammatically unacceptable. In this task I used a variety of contexts where JA speakers were introduced with pairs of sentences describing the same context and then were asked to evaluate felicity, infelicity and the awkwardness of the given sentences. This task is crucial for the

morphosyntactic analysis since it includes the intuition of the JA native speakers of the morphosyntactic properties of modals under examination. The following is an illustrative example taken from this task: JA speakers evaluated sentences (1-3) to be grammatically acceptable and sentence (4) to be grammatically unacceptable.

- (1) mush laazim te3mal heik.
 Not must subju.2.masc.do this.
 ‘You must not do that.’
- (2) mush mummkin elli ga3ed beSeer.
 Not may that progress.Particle imper.3.sing.masc.happen
 ‘It is impossible what is happening.’
- (3) Sarah ma bi- t- gdar t- soog el- seeyarah.
 Sarah not imperf.3.fem.sing.can subju3.fem.sing.drive the car.
 ‘Sarah cannot drive a car.’
- (4) * sarah mush bi t- gdar t- soog el- seeyarah.
 Sarah not imperf.3.fem.sing.can subju3.fem.sing.drive the car.
 ‘Sarah cannot drive a car.’

4. Modals in JA: A Morphosyntactic Analysis

This section provides a detailed morphosyntactic analysis of modals in JA. It is mainly concerned with defining a morphosyntactic “category” of modals in JA. In this section I argue that modals in JA show a nebulous morpho-syntactic behavior in the sense that they exhibit a distinct morphosyntactic nature different from many other categories including: verbs, pseudo-verbs, and particles. Therefore I argue that modals belong to an “open/null category” rather than any other specific categorization such as verbs, pseudo-verb or particles categorization as claimed in the literature.

4.1 Against the Verbal Analysis

In this section, I explore the core morpho-syntactic properties of the category “verb” in JA and then test whether these verbal properties are applicable to modals in JA. As explained earlier, one of the proposals for the categorical status of the modals in Arabic is that modals in Arabic belong to the category of ‘verb’. One of these proposals was presented by Jelink (1984, p.152-170) in her study of Egyptian Arabic. Jelink (1984) reported that the epistemic modal *yemkin* ‘may’ is categorized as a verb. No evidence whatsoever has been provided by Jelink (1984) to support such a claim. Along the same lines, Fassi Fehri (1993) studied different aspects of Arabic linguistics with a reference to many dialects in Arabic. One of those aspects was mood and modality in Arabic in which he categorized modals in Arabic as verbs (Fassi Fehri, 1993, p.150). Ma’ruf (2012) joined Fehri (1993) and argued that modals in Iraqi Arabic are best morpho-syntactically defined as finite verbs. Again, these categorizations were purely based on a passive parallel with English modals without providing any evidence or well-attested data. The same fact holds for Althawab (2014) who argued that modals in standard Arabic are best classified as verbs. He based his claim on the fact that modals in standard Arabic have the morphological template of lexical or full verbs. Ironically, Althawab (2014) provided more counterarguments for such categorization than he provided evidence for the verbal categorization. Some of these counterarguments will be discussed in this section. Crosslinguistically, modals in Germanic and other languages for instance have been categorized as verbs. This is evident for instance in Machova 2013’s seminal study of modals in which she explored the morphosyntactic status for modals across many language families including Germanic, Romance, Slavonic, Turkic, Chinese and other languages families alongside with English modals. She reported that “modals in Germanic, Slavonic and Scandinavian languages other than English do not behaved differently from other verbs, i.e., apart from an idiosyncratic lack of the 3rd person singular in the present paradigm, modals in Germanic and Scandinavian languages do not demonstrate any properties that would differentiate them from lexical verbs; nor do they constitute a formally homogeneous group” (Machova, 2013, p.82).

Next, I will introduce some basic morpho-syntactic properties of verbs in JA. In the remainder of the section, I will test the applicability of these properties on the modals under investigation in this paper.

'visited' are all in the perfective form and are all inflected for gender ,number and person as well.

Verbs in JA are negated with the verbal negation marker ma 'not'. This marker is used to negate the imperfective and the perfective verb forms in both SVO, VSO word orders and with a pro-dropped subject as in the following examples:

- 8- sami ma bi- 7ib el- tuufaa7.
Sami not imperf.3.masc.sing.like the apples.
'Sami does not like apples'.
- 9- ma bi- 7ib el- tuufaa7.
not imperf.3.masc.sing.like the apples.
'He does not like apples'.
- 10- ma bi-t- 7ib el- bint t- tlaa3barra.
not imperf.3.fem.sing.like the girl Subju.3.fem.sing.go outside.
'The girl does not like to go outside.'
- 11- el- awlad ma raa7-uu 3ala el- madraseh.
The boy.masc.pl not perf. 3.masc.plto the school.
'The boys did not go to school.'
- 12- mala7aag el- baas.
Not perf.3.masc.sing.catch the bus.
'He did not catch the bus.'
- 13- ma ejaa naas ktheer 3ala el- 7afleh.
Not perf.3.masc.pl person.masc.pl many tothe party.
'The people did not come to the party.'

In sentences (8), (9) and (10), the verbal negation marker ma 'not' is used to negate imperfective verb form. Note here that (8) presents SVO, (9) presents SVO but with subject dropped as JA is a pro-drop language which permits absence and presence of the subjects, and (10) presents VSO. In sentences (11), (12) and (13) the negative marker ma 'not' is used to negate perfective verb form and they present SVO, (S)VO(dropped subject) and VSO orders respectively.

Furthermore, verbs in JA have active and passive forms. Sentence (14) exemplifies an active form while (15) a passive form.

- 14- majdi kasar el-kaseh
Majdi break.3.sing.masc.past the glass
'Majdi broke the glass.'
- 15- el-kaseh inkasarat
The-glass passive.break.sing.fem.past
'The glass was broken.'

Another distinguishing feature of verbs in Arabic in general and in JA in particular is that verbs in Arabic are fully-inflected (Homeidi, 1986; Ryding, 2005; Alnadery, 2009; Althawab, 2014). In other words, verbs in Arabic inflect for three different conjugated forms according to their temporal and aspectual reference: imperfective (present and future reference), perfective (past reference) and imperative form (future reference) as exemplified by sentences (16, 17 and 18) which represent the three different forms of the verb root 'KTB' respectively.

- 16- majdibikteb fi er-resaleh
Majdi imperf.write.3.sin.masc in the-letter
'Majdi is writing the letter.'
- 17- majdi katab er-resaleh
Majdi perf.write.3.sin.masc the-letter
'Majdi wrote the letter.'
- 18- ektib er-resaleh!
write.imper.2.sing.masc the-letter
'Write the letter!'

The remainder of this sub-section ascertains to what extent modals in JA demonstrate these core verbal properties.

One of the core features of verbs in JA is that all verbs are inflected for number, person and gender. However, this fact does not hold for modals in JA as illustrated in sentences (19 a-d) and (20 a-d).

- 19- (a) sarah laazim t-roo73ala el- madraseh.
Sarah must subju.3.fem.sing.go tothe school.
'Sarah must go to school.'
- (b) laazim yroo7u 3ala el-madraseh.
Must subju.go.3.masc.pl to the-school
'They must go to school.'
- (c) * sarah laazim-t t-roo7 3ala el-madraseh.
Sarah must.3.fem.sing subju.3.fem.sing.go tothe school.
'Sarah must go to school.'
- (d) * laazimuu yroo7u 3ala el-madraseh.
Must.3.masc.pl subju.go.3.masc.pl to the-school
'They must go to school.'
- 20- (a) mummkkin sarah bi- t- smaa3 musiqaa.
May Sarah imperf.3.fem.sing.listen music.
'Sarah might be listening to music.'
- (b) mummkkin y- lbas -uu 3aadi.
May subju.3.mas.wear.pl normal.
'They may wear casual outfit/ They are allowed to wear casual outfit.'
- (c) * mummkkin-t sarah bi- t- smaa3musiqaa.
May.3.fem.sing Sarahimperf.3.fem.sing.listen music.
'Sarah might be listening to music.'
- (d) * mummkkin-uu y- lbas -uu 3aadi.
May.3.masc.pl Subju.3.mas.wear.pl normal
'They may wear casual outfit/ They are allowed to wear casual outfit.'

In 19 (a) and (b) above the modal laazim 'must' is not inflected for number, gender or person. Thus, these sentences are well-formed. However, in 19 (c) and (d), the modal laazim 'must' is inflected for number, gender

and person. Therefore, these sentences are ill-formed. The same fact obtains for the modal *mummk*in ‘may’. In 20 (a) and (b), the modal *mummk*in ‘may’ is not inflected for number, gender or person. Thus, the sentences are grammatical. However, in 20 (c) and (d), the modal *mummk*in ‘may’ is inflected for number, gender and person, and thus the sentences are ungrammatical.

Interestingly enough, the agreement inflections can only appear on the modal *bigdar* ‘can/could’. This modal can be inflected for number, gender and person similar to verbs in JA. Consider the examples in (21) below.

- 21- (a) *sarah bi-t-gdar t-soogel- seeyarah.*
 Sarah imperf.3.fem.sing.can subju3.fem.sing.drive the car.
 ‘Sarah can drive a car.’
- (b) *bi- gdar -uu y- ghelb-uu -hum.*
 Imperf. 3.can.masc.pl subju.3.beat. masc.pl.3.masc.pl.obj.
 ‘They can beat them.’
- (c) **sarah bi- gdar t- soogel- seeyarah.*
 Sarah imperf.3.sing.masc.can subju3.fem.sing.drivethe car.
 ‘Sarah can drive a car.’
- (d) **bi-gdar y-ghelb -uu -hum.*
 Imperf.3.sing.masc.can subju.3.beat. masc.pl.3.masc.pl.obj.
 ‘They can beat them.’

In 21 (a) and (b) the modal *bigdar* ‘can/could’ is inflected for number, gender and person. Thus, the sentences are grammatical. However, in 21 (c) and (d) the modal *bigdar* ‘can/could’ is used without the agreement inflectional markings of person, number and gender; therefore the utterances yield ill-formedness. This suggests that the modal *bigdar* ‘can/could’ is the only modal in JA so far that has a parallel syntactic behavior to verbs as far as agreement is concerned.

As we have seen earlier, verbs in JA are negated by the sentential negation marker *ma* corresponds to 'not' in English. The particle *mush* 'not' is another negation marker in JA, but this marker is a non-verbal negation marker in the sense that it is used to negate non-verbal predicates such as nouns and adjectives. The non-verbal negative marker *mush* 'not' cannot be used to negate verbs. However, the modals *laazim* and *mummkin* can be negated by the non-verbal negation marker *mush* contra to verbs as shown in the sentences below.

22- (a) *mush laazim te- t'axar 3ala el- mu7adarah mara thanyieh.*

Not Must subju.2.masc.come late to the lecture time again.

'You must not come late to lecture next time.'

(b) *mush mummkinenhum lahasafi el- maktabeh.*

Not May that till-now in the library.

'It is not possible that they are still in the library.'

In 22 (a) the modal *laazim* is negated with *mush* 'not' and the sentence is grammatical. In 22 (b) the modal *mummkin* is negated with *mush* 'not' and the sentence is grammatical too. This shows that, contra to verbs, *laazim* and *mummkin* can tolerate the non-verbal negation marker *mush*. The modal *bigdar*, on the other hand, selects only for the verbal negation marker *ma* 'not' exactly as verbs as shown in (23) (a) and (b).

23- (a) *sarah ma bi-t-gdar t- sooq el- seeyarah.*

Sarah not imperf.3.fem.sing.can subju3.fem.sing.drive the car.

'Sarah cannot drive a car.'

(b) * *sarah mush bi-t-gdar t- sooq el- seeyarah.*

Sarah not imperf.3.fem.sing.can subju3.fem.sing.drive the car.

'Sarah cannot drive a car.'

In 23 (a) the modal *bigdar* is negated with the negation marker *ma* ‘not’ and thus the sentence is grammatical. In 23 (b), the modal *bigdar* is negated with the non-verbal negation marker *mush* ‘not’, yet the utterance yields ungrammaticality. This suggests so far that, contra to the modals *laazim* and *mumkin*, the modal *bigdar* shows a similar morpho-syntactic pattern to verbs in JA in terms of agreement inflection and negation marking.

Contrary to verbs, the modals *laazim* ‘must’ and *mumkin/yemkin* ‘may/might’ in JA have invariable voice in the sense that they have only an active voice form as shown in all the previous examples of these modals. A similar fact obtains for the modal *bigdar* ‘can/could’. In fact, the modals *laazim* ‘must’ and *mumkin/yemkin* ‘may/might’ maintain the same form whether used under active as in (24a and 25a) or passive readings as (24b and 25b). However, for the modal *bigdar* ‘can/could’ JA native speakers intuit that it is very semantically and structurally unacceptable to use this modal in the passive contexts as illustrated in (26a-b).*

24- (a) *majdi laazim yb3ath er-resaleh*
 Majdi must subju.3.sing.masc.send the letter
 ‘Majdi must send the letter.’

(b) *er- resaleh laazim tenba3eth*
 The letter must passive.3.sing.masc.send
 ‘The letter must be sent.’

* - See Brennan (1993) and Eide. M (2011) for further details on raising, control verbs and dynamic modals that block passivization.
 - See Wurmbrand (1999) for an alternative raising-verb account for epistemic and root modals.

- 25- (a) majdi yemkin yb3ath er-resaleh
Majdi may subju.3.sing.masc.send the letter
'Majdi may send the letter.'
- (b) er- resaleh yemkin tenba3eth
The letter may passive.3.sing.masc.send
'The letter might be sent.'
- 26- (a) majdi bigdar yb3ath er-resaleh
Majdi can/able to subju.3.sing.masc.send the letter
'Majdi can/is able to send the letter.'
- (b)*/# er- resaleh btegdar tenba3eth
The letter can/able to passive.3.sing.masc.send
'The letter is able to be sent.'

As discussed earlier, one of the dominating properties of verbs in Arabic in general and in JA in particular is that they inflect for three different conjugated forms according to their temporal and aspectual reference: imperfective (present and future reference), perfective (past reference) and imperative form (future reference). The modals laazim 'must' and mumkin/yemkin 'may/might' show a striking distinction with verbs with regards to this property. This is due to the fact that these modals maintain the same 'frozen form' under all temporal and aspectual readings of the sentences they are used in. Examples (27a-b) and (28a-b) are illustrative.

- 27- (a) majdi laazim yb3ath er-resaleh
Majdi must subju.3.sing.masc.send the letter
'Majdi must send the letter.'
- (b) majdi laazim ba3ath er-resaleh embare7
Majdi must perf.3.sing.masc.send the letter yesterday
'Majdi should have sent the letter yesterday.'
- 28- (a) majdi mumkin ysafir bukrah
Majdi may subju.3.sing.masc.leave tomorrow
'Majdi might leave tomorrow.'

-
- (b) majdi mumkin safar embare7
 Majdi may perf.3.sing.masc.leave yesterday
 ‘Majdi might haveleft yesterday.’

While it is true that the modal bigdar ‘can/could’ shows an analogous behavior with verbs regarding this property as in (29a and b), it still shows a contrast with verbs with respect to the imperative form* as in sentence (29c).

- 29- (a) sami bigdar y-njaa7fi fa7s el-swagabukrah.
 Sami imper.3.masc.sing.can subju.3.masc.sing.pass in test the
 driving tomorrow.
 ‘Sami can pass the driving test tomorrow.’
- (b) sami gadery-njaa7fi fa7s el-swagaembare7.
 Sami perf.3.masc.sing.can subju.3.masc.sing.pass in test the
 driving yesterday.
 ‘Sami was able to pass the driving test yesterday.’
- (c)* igdarenjaa7 fi fa7s el-swaga bukrah!
 imperative.2.masc.sing.can subju.2.masc.sing.pass in test the
 driving tomorrow!
 ‘Be able to pass the driving test tomorrow!’

Note here that, unlike laazim and mumkin, the modal bigdar has different conjugated forms for the imperfective form (future reference) as in 29 (a) and the perfective form (past reference) as in 29 (b). However, unlike verbal predicates, this modal does not survive the imperative contexts as evident by the ungrammaticality of 29 (c).

* - The lack of imperative with modals is often described as “being due to a semantic (e.g Faarlund et al.,1997, p.590; Öhlshcläger, 1989, p.59) or a pragmatic constraint, belonging to the language user's knowledge of the world and stemming from an incompatibility of the lexical meaning of a modal and the task performed by an imperative form. This suggests that the lack of imperative with most modals is due not to a deprived morphological paradigm, but rather to a semantic incompatibility of the lexical content of the modal with the communicative function of the imperative” (Eide M., 2011, p.12).

- See Portner(2007) for further details on the semantic interaction between modals and imperatives.

In summary, the aforementioned discussion demonstrates that, despite the frequently held view, the modals *laazim* 'must' and *mumkin/yemkin* 'may/might' show a stark difference with verbs with regards to: agreement inflection, negation marking, variability of voice and conjugation. However, the modal *bigdar* 'can/could' exhibits some of the properties of verbs especially the agreement inflection and negation marking. Yet, the modal *bigdar* 'can/could' differs from verbs in terms of variability of voice and the imperative contexts.

4.2 Against the Pseudo-Verbs Analysis

As pointed out earlier, most, if not all, the previous studies addressing modals in Arabic subsumed modal expressions under some nebulous categorization without providing the empirical evidence nor the attested data for such categorization. This is a prevailing shortcoming of all the aforementioned studies discussed in this paper so far and the studies that addressed modals as pseudo-verbs are no exception. For instance, Brustad (2000) examined different aspects of Arabic syntax such as verb categorization, negation, mood among many other topics. However, whenever Brustad (2000) addresses the modal *laazim*, she used the term 'pseudo-verb *laazim*' (Brustad, 2000, p.146). Throughout the entire work of hers, no explanation was provided whatsoever as to why the modal *laazim* was equated or categorized as pseudo-verb. A similar observation is obtained with Moroccan modals examined by Vanhove M. et al. (2009). In this study of Maltese and Moroccan modals, Vanhove M. et al. (2009, p.16) reported that "As an epistemic auxiliary, *xəss* expresses near-certainty. For the expression of the value of 'to be under the obligation' described above, it is frozen in the 3rd person masculine singular of the perfective, suffixed with personal pronouns, but in addition, it is followed with the imperfective form of 'be', *ykuun*. It thus forms a pseudo- verb conjugation, *xəss-u ykuun* he/it must be". Note here that the modal under investigation in this paragraph (the modal *xess*) is given three different categorizations all together in which pseudo-verb is one of them (i.e. an epistemic auxiliary, a frozen form and a pseudo-verb). However, no empirical explanation was provided to support such adhered categorizations.

While these studies among others categorized modals in Arabic as pseudo-verbs, a closer look at the morphosyntax of pseudo-verbs and modals in JA calls for a reconsideration of such a claim as will be clearly advocated in the coming paragraphs.

In general, a pseudo-verb can be a nominal or prepositional phrase that is used semantically to convey a verbal meaning, often but not necessarily possessive or existential in nature (Brustad, 2000,p.153; Shlonsky et al., 2012; Wilmsen, 2013; Peterson, 2009). These expressions have partially verbal syntactic nature as will be shown later (Ingham, 1994). JA and most if not all varieties of spoken Arabic have pseudo-verbs (Brustad, 2000). In the following sentences, the prepositions *fi* 'in', *3end* 'at' and *il* 'to' are used as pseudo-verbs. They are used to establish possession or existential meaning. Consider the following examples:

- 30- (a) *fi-h mushkilah laazim n- 7el -ha.*
 In.it problem must subj.1.masc.pl.solve.it. (JA)
 'There is a problem we must solve.'
- (b) *'ana il -i3allaqa fi al- mawDoo3.(JA)*
 I to.me relation in the matter.
 'I have relation to the matter.'
- (c) *3end-uh Tool -it baal. (JA)*
 At .him long.Fem.sing patience.
 'He has patience.'
- (d) *ma fi-sh mushkela* (Egyptian
 Arabic, Brustad 2000:152)
 Not in-not problem
 'There is no problem!'
- (e) *ma3anduh shahadeh* (Syrian Arabic, Brustad 2000:152)
 Not at.him degree
 'He does not have a degree.'
- (f) *'ana ba3ad ma li7aTH* (Kuwaiti Arabic, Brustad 2000:152)
 I then not to.me luck
 'I,now, have no luck.'

In 30(a) the existentialfi ‘there’ is a pseudo-verb that expresses an existential reading rather than a locative prepositional reading. In 30 (b) and(c), the prepositions illi ‘to me’ and 3enduh ‘at him’ are pseudo-verbs that express possessive meaning i.e. have. These examples represent data from JA. A similar observation obtains for Egyptian Arabic (30 d) where the preposition fi expresses a ‘there-existential reading; sentences (30 e and f) represent data from Syrian and Kuwaiti Arabic respectively where the prepositions 3anduh and li express a possessive reading.

One of the core characteristics of pseudo-verbs is that they can be preceded by the auxiliary verb kaan ‘to be’ to express past tense as in (31 a- c). In fact, this feature of pseudo-verbs has been taken as one of the major arguments that pseudo verbs are syntactically analogous to verbless sentences in Arabic also known as copular constructions (See Fassi Fehri,1993; Eid, M., 1991; Bahloul, 1993; Benmamoun, 2000for further details on various syntactic accounts of verbless sentences in Arabic and Hebrew).

- 31- (a) kaan fi-h mushkilah lazim n- 7el -ha.
Was in problem must subju.1.masc.pl.solve.it.
‘There was a problem we had to solve.’
- (b) ‘ana kaan il -i3allaqa fi al- mawDoo3.
I was to.me relation inthe matter.
‘I had relation to that matter.’
- (c) kaan3end- uh Tool -it baal.
Was At .him long.Fem.singpatience.
‘He used to have patience.’

Furthermore, pseudo-verbs in Arabic in general and in JA in particular are characterized by taking their logical subjects in the form of an attached pronoun object i.e. accusative object clitics as exemplified in (32 a-c). This feature demonstrates the partially verbal nature of pseudo-verbs based on the observation that verbal predicates can cliticize their objects as in shefthum ‘saw them’ and katabtuh ‘wrote it’.

- 32- (a) 3end-uh shahadeh mu3tamadeh.
At.him certificate authentic.
‘He has an authentic certificate.’

-
- (b) fi -hum quwah xafiyeh.
In.them spirit hidden.
'There is spirit among them.'
- (c) il -ak daxal fi al- mawDoo3!
To.yourelation in the matter.
'You have relation to the matter!'

In addition, pseudo-verbs in Arabic are usually negated with the verbal negation marker *ma* as exemplified in (33a-c). They can also be negated with the verbal negation pattern /*ma – sh/*, which is known as the discontinuous negation pattern as in (33 d-f).

- 33- (a) ma 3end -ha xuluq.
Not At. Here morals.
'She doesn't have morals.'
- (b) ma fi -h mushkilah.
Not in. it problem.
'There is no problem.'
- (c) ma il -ak shougul.
Not to.You business.
'You do not have business with me.'
- (d) ma 3end -ha- sh xuluq.
Not At. Here. not morals.
'She doesn't have morals.'
- (e) ma fi -h-shmushkilah.
Not in. it. notproblem.
'There is no problem.'
- (f) mal-ak -sh shougul.
Not to.You.not business.
'You do not have business with me.'

Let us now examine whether modals in JA can be categorized as pseudo-verbs. We have seen that in general, pseudo-verbs can be nominal or existential phrases that are used semantically to convey a verbal meaning, often possessive or existential in nature. However, modals in JA do not yield the same feature in the sense that no modal in JA express possessive or

existential interpretations. Rather, the modals *laazim* 'must', *mumkin/yemkin* 'may/might' and the modal *bigdar* 'can/could' express a deontic, epistemic and dynamic interpretations respectively (See section 2 for further details).

As pointed out earlier, pseudo-verbs take their logical subjects in the form of an attached pronoun object (i.e. cliticized object). This pattern is not applicable to modals in JA as illustrated in (34 a-d).

- 34- (a) **laazim-ha t- gadem el- emti7aan.*
Must.3.fem.sin.obj subju.3.fem.singthe exam.
'She must take the exam.'
- (b) **bi- gdar -hum y- ghelb -uu -hum.*
Imperf. 3.can.masc.pl.obj subju.3.beat.
masc.pl.3.masc.pl.obj.
'They can beat them.'
- (c) **mummkin-ha bi- t- drus fi el- maktabeh.*
May.3.fem.sing.obj imperf.3.fem.sing.study in the
library.
'She might study at the library.'

In 34 (a), (b) and (c) and (d), the modals *laazim* 'must', *bigdar* 'can/could' and *mummkin* 'may' are used with cliticized object pronouns respectively; yet the utterances yield ungrammaticality.

In JA pseudo-verbs are negated using the sentential negation marker (verbal negation marker) *ma* 'not' as in (35a). The negation marker *ma* 'not' is also used to negate verbs in JA. The negation markers *mush* 'not' and *muu* 'not' are also other negation markers in JA, but these markers are non-verbal predicate markers. The non-verbal negative markers *mush* 'not' and *muu* 'not' cannot be used to negate pseudo-verbs in JA as shown by the ungrammaticality of (35b). However, the modals *laazim* 'must' and *mummkin* 'may' can be negated by the non-verbal negation markers *mush* 'not' as shown by the grammaticality of (35 c and d).

- 35- (a) *ma 3end -ha xuluq.*
Not At. 3.fem.sing.obj morals.
'She doesn't have morals.'

-
- (b) * mush 3end -ha xuluq.
 Not At. 3.fem.sing.objmorals.
 ‘She doesn’t have morals.’
- (c) mush laazim te3mal heik.
 Not must subju.2.masc.do this.
 ‘You must not do that.’
- (d) mushmummkin elli ga3edbeSeer.
 Not may that
 progress.Particleimper.3.sing.masc.happen
 ‘It is impossible what is happening.’

Contrary to laazim and mummkin, the modal bigdar ‘can/could’ selects only for the verbal negation marker ma ‘not’ similar to pseudo-verbs as shown in (36 a and b).

- 36- (a) sarah ma bi- t- gdar t- soogel- seeyarah.
 Sarah notimperf.3.fem.sing.can subju3.fem.sing.drive the
 car.
 ‘Sarah cannot drive a car.’
- (b) * sarahmush bi t- gdar t- soogel- seeyarah.
 Sarah not imperf.3.fem.sing.can subju3.fem.sing.drivethe
 car.
 ‘Sarah cannot drive a car.’

A similar observation is obtained with the discontinuous negation pattern. laazim and mummkin yield ungrammaticality with such pattern as evident in (37 a and b). Yet, the modal bigdar ‘can/could’ is acceptable with the discontinuous negation pattern: “ma-sh” (37c).

- 37- (a) *ma laazim-sh te3mal heik.
 Not must.notsbju.2.masc.do this.
 ‘You must not do that.’

- (b) *mamummkin-sh elli ga3ed beSeer.
Not may. notthat progress.Particle imper.3.sing.masc.happen
'It is impossible what is happening.'
- (c) ma bi- gdar -uu-sh y- ghelb -uu -hum.
Not Imperf. 3.can.masc.pl.not subj.3.beat. masc.pl
3.masc.pl.obj.
'They cannot beat them.'

To recap, I argued in this section that modals in JA display an idiosyncratic morphosyntactic pattern that cannot be accounted for by the pseudo-verbs analysis. I have shown with empirical diagnostics that the modals *laazim* and *yemkin/yumkin* differ from the syntactic category of pseudo-verbs in terms of semantic interpretation, selection of cliticized objects, and negation (both canonical verbal negation and discontinuous negation pattern). The modal *bigdar*, on the other hand, shares one morphosyntactic feature with pseudo-verbs, that is the canonical verbal negation and discontinuous negation. However, the modal *bigdar* differs in the other features: semantic interpretation and selection for cliticized object pronouns. It is concluded therefore that the claim that modals in Arabic or JA can be categorized as pseudo-verbs is not empirically motivated.

4.3 Against the Particle Analysis

It is cross-linguistically well established that modality can be expressed by the use of particles (Degand et al., 2013). One might argue therefore (in light of the failure of the previous analysis, verb and pseudo-verb analyses) that JA modals can be categorized morphosyntactically as particles. It is therefore the aim of this section to test this claim.

Particles are non-inflected lexical categories which express the mood of the speaker towards a specific proposition (See Hansen, 1998; Schiffrin, 2001; Fischer, 2007; Diewald 2013; for more details and different perspectives on the meaning of particles crosslinguistically). In standard Arabic (SA henceforth), particles are also used to convey different modal interpretations (Fassi Fehri, 1993; Althawab, 2014; Hassan, 2016). There are at least five modal particles (MPs henceforth) that convey modal readings in SA: *qad*

‘may/epistemic’, *rubbama* ‘may/epistemic’, *sa* and *sawfa* ‘will/dynamic’, *laa budda* ‘must/epistemic and deontic’ (Althawab, 2014, p.179). In the varieties of Arabic, particles can be used to convey interpretations other than modality, mainly mood.* For instance, in Iraqi Arabic the particle *yais* is used in interrogative mood as in (38a, Hassan, 2016, p.47). In JA, Syrian, and Palestinian the MPra7 ‘will’ is used to express a willingness and volitional/dynamic reading under future interpretations as in (38b).

38- (a) *yā 3ali*

INT Ali?

‘Which Ali (do you mean)?’

(b) *ra7 nebda elmashroo3 bukrah*

Will subj.1.pl.start the-project tomorrow

‘We will start the project tomorrow.’

Crosslinguistically, MPs have received a tremendous attention and extensive study in the linguistic literature (Hartmann, 1986; Traugott, 2007; Haselow, 2011; Degand et al., 2013; among many others). MPs have been discussed primarily in languages such as German, French and some Scandinavian languages (See Aijmer, 2013 for discussion and examples). Typologically, there have been some features typically ascribed to MPs; these features are based on the overviews in Autenrieth (2002); Diewald (2007) and Schoonjans (2013, p.135): (a) MPs are non-inflected forms; (b) they cannot be negated; (c) they do not have a constituent or clause value (they cannot stand alone as an answer to a question); (d) they scope over the constituent they occur in; (e) they can be combined with other elements as affixes attached to verbs. However, while there are other properties for MPs discussed in the literature, I shall use only these properties as the other properties are not applicable to Arabic data therefore they will not be useful in my discussion of JA modals (See

* See Agius D. & Harrak A. (1987) for a detailed discussion and an extensive survey of particles in many dialects of Arabic including: Iraqi, Syrian, Lebanese, Palestinian, Egyptian, Sudanese, Tunisian, Moroccan and Maltese Arabic.

Schoonjans, 2013 for more details on the typological features of MPs and more cross linguistic examples). I argue that none of these features are extendable to JA modals except for feature (a) because as pointed out earlier JA modals especially laazim and mumkin/yemkin do not inflect for tense and aspect. However, such feature is not applicable to the modal bigdar (See section 3.1). The following data (sentences 39-42) provide counterarguments for the rest of the features (b-e) respectively.

- 39- (a) ma laazim y- t'axar 3ala el- mu7adarah.
Not mustsubju.3.masc.come late to the lecture.
'He must not come late to lecture.'
- (b) mush mumkin ba3dhum bi- drus -uu fi al- maktabeh
lahasa.
Not may still imperf.study.3.masc.pl in the library
till-now .
'They might not be studying at the library now!'
- (c) sarah ma bi- t- gdar t- sooq el- seeyarah.
Sarah not imperf.3.fem.sing.can subju3.fem.sing.drive
the car.
'Sarah cannot drive a car.'
- 40- A: laazim/mumkin/bagdar adawem bukrah?
Must/ may/ can subju.1.sing tomorrow
'Do I have to come to school tomorrow?'
B: 'aah, laazim/mumkin/btegdar.
Yes, must/ may/ can
' Yes, you must/may/can go.'
- 41- (a) majdi laazim yb3ath er-resaleh
Majdi must subju.3.sing.masc.send the letter
'Majdi must send the letter.'
Intended: It is necessary for Majdi to send the letter. (Scope
over the whole
proposition)
- (b) majdi mumkin yb3ath er-resaleh
Majdi may subju.3.sing.masc.send the letter
'Majdi may send the letter.'
Intended: It is possible that Majdi send the letter. (Scope over
the whole proposition)

42- (a) * ma laazim-sh te3mal heik.

Not must. notsubju.2.masc.do this.

‘You must not do that.’

(b) * ma mumkin-sh elli ga3ed beSeer.

Not may,not that progress.Particle
imper.3.sing.masc.happen

‘It is impossible what is happening.’

In SA and the varieties of Arabic, MPs have been ascribed some morphosyntactic features as well (Fassi Fehri, 1993; Althawab, 2014; Bahloul, 2016; Hassan 2016). One of the core properties for MPs in SA is that the verbal complement of MPs in SA is either [-Comp] as in qad (sentences 43a and b, Althawab, 2014, p.180) or [+Comp] as in la budda (sentence 44a and b, Althawab 2014) where [Comp] stands for a complementizer (i.e. inna). However, JA modals entertain a binary selectional property of their verbal complement i.e. [-/+ Comp] as shown in (45).

43- (a) qad yusafer zaydun ella meSr
May Impf.travel Zaid to Egypt
‘Zaid may travel to Egypt.’

(b) * qad enna yusafer zaydun ella mesr
May Comp Impf.travel Zaid to Egypt
‘Zaid may that travel to Egypt.’

44- (a) laa budda ann tughadera ‘al’ana
Must that Impf.leave now
‘You must leave now.’

(b) * laa budda tughaderaal’ana
Must Impf.leave now
‘You must leave now.’

45- laazim/yemkin/bigdar (innuh) yejii Must/ May/ Can (that)
subju.3.sing.masc.come
‘He must/may/can come.’

In SA, the interpretation of the MP qad ‘may’ depends on its verbal complement: if the verbal complement is a non-finite complement then the modal qad expresses an epistemic reading as in (46a); However, when followed by a perfective form it denotes an emphasis reading (i.e. emphasize the truth of the proposition) as exemplified in (46b). This contrasts with all the modals in JA where the verbal complement (whether non-finite, imperfective or perfective) affects only the temporal reading of the sentence (i.e. anchoring the situation at present, past or future) and not the modality reading of the modals (See section 3.1).

- 46- (a) qad yusafer zaydun ella meSr
May Impf.travel Zaid to Egypt
‘Zaid may travel to Egypt.’
- (b) qad safarazaydun ella mesr
May perf.travel Zaid to Egypt
‘Zaid hasindeed travelled to Egypt.’

Furthermore, it seems that the MP qad ‘may’ has a frozen syntactic configuration in that no phrase or any element (even the subject of the sentence) in the structure can intervene between the MP qad ‘may’ and its verbal complement except for the negative marker laa ‘not’ as illustrated in (47 a and b, Althawab, 2014, p. 181). However, JA modals can occur in different word orders i.e. S Modal V as in (48a), Modal S V as in (48b) and Modal V as in (48c).

- 47- (a) qad laa yastaghrequ ‘al’amru waqtan Taweelan
May not Impf.take the.issue time long
‘This issue may not take a long time.’
- (b) * qad ‘al’amru yastaghrequ waqtan Taweelan
May the.issue Impf.take time long
‘This issue may take a long time.’
- 48- (a) majdi laazim/yemkin/bigdar yejii
Majdi must/ may/ can subju.3.sing.masc.come
‘He must/may/can come.’

-
- (b) laazim/yemkin/bigdar majdi yejii
 must/ may/ can Majdi subju.3.sing.masc.come
 ‘He must/may/can come.’
- (c) laazim/yemkin/bigdar yejii
 must/ may/ can subju.3.sing.masc.come
 ‘He must/may/can come.’

In summary, the aforementioned discussion clearly asserts that even a particle-based analysis does not account for the morphosyntactic nature of modals in JA and therefore the particle analysis is ruled out.

5. The Heterogeneity of JA Modals

A closer look at the findings of the aforementioned discussion reveals that JA modals exhibit an inconsistent and non-coherent morphosyntactic pattern. In other words, it seems that JA modals split into two groups in terms of their overall morphosyntactic behaviour: *laazim* ‘must’ and *mumkin/yemkin* ‘may/might’ subsume under one group and the modal *bigdar* ‘can/could’ subsumes under another different group. For instance and as pointed out earlier (see section 3.1), the modals *laazim* ‘must’ and *mumkin/yemkin* ‘may/might’ show a stark difference with verbs with regard to: agreement inflection, negation marking, variability of voice and conjugation. However, the modal *bigdar* ‘can/could’ exhibits some of the properties of verbs especially the agreement inflection, negation marking and conjugations.

In light of this observation, I contend that JA modals form a heterogeneous rather than a homogeneous group. This finding is consistent with other crosslinguistic observations which showed that modal verbs in other language families such Germanic (German, Dutch, Danish) Romance (Italian and Romanian), Slavonic (Czech and Polish) and other language families demonstrate immense variety of morphological and syntactic behaviours (Machova, 2013).

6. Conclusion

The current paper showed that the conventional categories of verbs, pseudo-verbs and particles fail to account for the mixed and intermediate behavior of JA modals which exhibit idiosyncratic morphosyntactic properties. The paper proposed therefore that JA modals should belong to an

‘open/null category’ and not to any of the assumed categories in the literature.

The findings of the paper also provide some insights into the typological and cross-linguistic research on modality. First, the ‘open/null’ category of JA modals is typical to the notion of fuzzy boundaries and fuzzy categories as put by (Degand et al., 2013, p.2)“Typical of this approach is the notion of fuzzy boundaries, since it is often the case that categories have no clear boundaries. There may be borderline cases, where clear, unambiguous categorization is not possible. “Thus, an entity may be a marginal example of more than one category, but a good example of none” (Taylor, 2003 p. 6).

Second, the paper has shown that JA modals exhibit inconsistent and non-coherent morphosyntactic behavior. Based on this fact, the paper concluded that JA modals form a quite heterogeneous rather than homogenous group. This empirical finding is consistent with many other cross-linguistic findings where modals from different language families such as Germanic, Romance and others have been shown to belong to heterogeneous rather than homogenous grouping (Machova, 2013). Typologically, the heterogeneity and the fuzzy category of JA modals lend further evidence to the difficulty to universally define the category of modals on formal grounds (Machova, 2013 p. 87).

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