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Double Modals in Najdi Arabic

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ABSTRACT

In contrast to constructions with single modals, the double-modal pattern is known to be a rare syntactic process. This investigation examines the use of double modals (DMs) in the Buraydawi variety of Najdi Arabic (BNA). Previous studies state that Standard Arabic (SA) modals are in two categories: modals and semi-modals. Yet, only some of the modals suggested are actively used in BNA. Whereas modals are prohibited from co-occurring in SA, BNA demonstrates a great degree of flexibility in this regard. Unlike DMs in some languages, as were thoroughly discussed in the literature, DMs in BNA can exhibit flexible reordering. This switch of modals has prompted some linguists to consider revisiting earlier analyses of DMs. I propose that in BNA, two modal phrases (MPs) project higher than the tense phrase (TP). While MP^{1} in the tree diagram is occupied by the first modal, MP^{2} is the maximal projection for the second modal. After the DMs switch places, each modal occupies the landing site of the other in the syntactic tree. Furthermore, if *gdar* 'could' is categorized as a modal, as some linguists have proposed, BNA would be able to build a three-way construction of modality.

Keywords: Double Modals; Najdi Arabic; Syntax; Theoretical Study

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1. Introduction

This paper examines the use of double modals (DMs)[1] in the Buraydawi variety of Najdi Arabic (henceforth, BNA). A dialect with an approximate speaker population of over half a million, BNA is spoken in the city of Buraydah, Saudi Arabia. I will rely on the classifications of modals in Standard Arabic (SA) by Zayed[1], Alharbi[2], and Abdel-Fattah[3] to match the SA modals to their counterparts in BNA. For the purpose of this study, I will focus on the most commonly integrated modals in BNA, rather than discussing all the modals.

The Arabic language does not possess a clearly defined distribution of modals. The few linguists who have studied Arabic and its varieties have relied primarily on English modals as frameworks from which to draw comparisons. According to Zayed, certain types of syntactic patterns restrict modals in SA to two categories: modals and semi-modals.

In many ways, modals in BNA behave differently from their counterparts in SA; DMs do not co-occur in SA (example 1a below), but are allowed in BNA (1b). Furthermore, reordering of BNA modals is permitted, as can be seen in (2b). Secondly, in contrast to the SA obligatory complementizer *ʔan* (3a)[2], the complementizer in BNA does not intervene between the modal and its complement unless there is a pronominal agreement suffix following the complementizer, as in (3b). Yet in example (4b), the BNA sentence lacks a complementizer due to the absence of pronominal agreement.

By exhibiting dynamic word order, BNA allows sentences with interchangeable positions of modals to be grammatical. Additionally, some speakers of BNA may even allow the sentence to start with the final inflected word in (4b): *te-ruːħ* 'you-go'. As a result, the verb phrase (VP) moves to a domain that precedes the landing sites of the DM.[3]

Another example of flexibility is the manner in which some modals host morphemes, much as verbs do. In example (5), the BNA modal, in line with the SA one, has the ability to be inflected. As in SA, the modal *a-statˁiːʕ* 'I-can' in BNA has a word-initial "person" clitic.

(1) a. **yumkinuk-a laːzem ta-ðhab* (SA)
may-2.SG must 2.SG-go
'you may must go'

b. *yemken laːzem te-ruːħ* (BNA)
may must 2.SG -go
'you may must go'

(2) a. **laːzem yumkinuk-a ta-ðhab* (SA)
must may-2.SG 2.SG-go
'you must may go'

b. *laːzem yemken te-ruːħ* (BNA)
must may 2.SG-go
'you must may go'

(3) a. *yumkinuk-a *(ʔan) ta-ðhab* (SA)
may-2.SG COMP 2.SG-go
'you may go'

b. *yemken (ʔen-**ek**) te-ruːħ* (BNA)
may COMP-2.SG 2.SG-go
'you may go'

(4) a. **yumkinuk-a ta-ðhab* (SA)
may-2.SG 2.SG-go
'you may go'

b. *yemken te-ruːħ* (BNA)
may 2.SG-go
'you may go'

(5) a. *a-statˁiːʕu *(ʔan) ʔa-'ati* (SA)
1.SG-can COMP 1.SG-come
'I can come'

b. *qad a-statˁiːʕ ʔa-dʒi* (BNA)
could 1.SG-can 1.SG-come
'I could can come'

[1]The list of abbreviations used in this research: 1 = first person, 2 = second person, 3 = third person, PL = plural, SG = singular, pro = pronoun, PST = past, PRES = present. NEG/Neg(P) = negative (phrase), SA = Standard Arabic, NA = Najdi Arabic, BNA = Buraydawi variety of Najdi Arabic, SUSE = Southern United States English, SM = subjunctive marker, MM = mood marker, Spec = specifier, DM = double modal, T(P) = tense (phrase), V(P) = verb (phrase), DP = determiner phrase, P(P) = preposition (phrase), Agrs(P) = agreement (phrase), M(P) = modal (phrase). Vm(P) = verb modal (phrase), CP = complementiser phrase, COMP = complementiser, EPP = extended projection principle, S = subject, V = verb, O = object.

[2]According to Albaty[4], ʔan can be called a subjunctive marker (SM) and a mood marker (MM).

[3]This is a case of flexibility in word order. Although it is possible, it is very rare.

In order to explain and extrapolate the above data, similar examples will be presented, the distribution of English modals from the perspective of grammarians will be explored, and background analyses of DMs will be performed. In general, the paper will address the following questions: how should linguists account for the reordering of modals in BNA? More importantly, how should linguists develop an analysis for the interchangeable landing sites of DMs, the need for pro-support, the optionality of the complementizer, and the implementation of clitics?

This section has introduced the core issue of this paper. Section 2 discusses general trends in the analysis of modals cross-linguistically, then comment on some of the early studies with regard to English DMs. Section 3 is about modals in SA. Section 4 examines the alternation of BNA modals. Section 5 presents the conclusion.

2. On the Syntax of Modals

As scholars have documented in numerous grammar books, modals in English are syntactically divided into three subcategories: modals, semi-modals, and phrasal modals. One piece of evidence comes from Penston[4, 5], who states that there is controversy among grammarians regarding the classification of modals. He considers *can, could, may, might, will, would, shall, should, ought to,* and *must* to be modals, and defines *need, dare, used to,* and *have (got) to* as semi-modals. Lastly, according to Penston[5], phrasal modals include, but are not limited to, *had better, would rather, likely to, able to, going to,* and *allowed.* Von Fintel argued that (as cited in Butler, pp. 161–162)[6] modality can be further represented in the form of an adverb, such as *perhaps*; an adjective, as in *it is far from necessary*; a noun, as in *there is a slight possibility*; or through some conditionals, as in *if the light is on*.

Butler[6] adds that in contrast to English, some other languages, as in the cases of French and Greek, treat the equivalents of English modal auxiliaries as main verbs. For others, modals can be inflected, as in German, or show a high presence of affixes, as in Tamil.

The linguistic analysis of modals has been approached in various ways. When we look at modals from a semantic perspective[5], they are further categorized into three groups according to their meaning: epistemic, deontic, and dynamic. More importantly, some syntacticians have placed much emphasis on the "epistemic/root" contrast. Barbiers[7] has presented an argument that accounts for modality expressed by modal auxiliaries, the key constructors of DMs. At the initial stage, he differentiates the epistemic from the root by considering two elements, the subject and the predicate, as illustrated in (6a) below. This demonstrates that the two semantic readings are highly dependent on the interaction between the subject/agent and the predicate. By quoting Ross Barbiers[7] further suggests that the epistemic reading of the modal is a one-place predicate; however, the root reading is a two-place predicate (6b).

In addition, it has been claimed that the level of obligation pertaining to the modal of necessity (e.g. *must*) retains three valid interpretations. Coates[8] divides the usage of one expression of modality into the categories of "root" (7a), where there is a high degree of obligation; "weak root" (7b), in which there is less of an obligation; and "epistemic" (7c), when the modal *must* switches to show a case of necessity rather than obligation.

(6) a. John must be home at six o'clock.
Epistemic: (Given what I, the speaker, know) I conclude that John will be home at six o'clock.
Root: John is obliged to be home at six o'clock.
([7], p. 2)

b. Epistemic: must (John be home at six o'clock).
Root: must (John, be home at six o'clock).
([7], p. 2)

(7) a. Root: You **must** finish this before dinner.
b. Weak Root: All the students **must** obtain the consent of the dean.
c. Epistemic: I **must** have a temperature.

In Barbiers' [7] investigation of modals, he outlines four competing analyses in an attempt to pinpoint the differences between the root and the epistemic. First, one alternation between root and epistemic modals can be seen in comparison with main verbs such as *break* and *smoke.* Each has one lexical entry that corresponds to either transitivity or intransitivity. Similarly, the lexical entry of a modal auxiliary is reduced to a one-place verb for epistemics. Yet, the same lexical entry is matched to the two-place (transitive) verb in the case of roots. The second possible account is that the epistemic modal is analyzed as a raising structure, while the root is a control predicate. With that said, counterexamples have cast doubt on the first and second assumptions.

Third, the distribution of modals varies across languages. Whereas English draws a clear line between modal auxiliaries and main verbs, there are other Germanic languages (i.e., Dutch) which have a mixed system. As Barbiers [7] claims, the distinction between main and modal verbs is not a tangible tool for differentiating the root from the epistemic. Finally, the integration of modals into the structure (i.e., in Catalan) is reported to be higher for epistemic modals, but lower for root modals. Scholars also debate whether the higher position is a function of base generation or LF raising. One further suggestion calls for a closer look into the distinction of positions between modals of possibility and those of necessity. Although these seem to work for some languages, others have shown more restriction.

Essentially, there is a high degree of variability. As was shown above, the syntactic analysis of modals has turned out to provide no clear universal pattern. Modal auxiliaries are classified as either an epistemic or a root. Depending on their specific category, they can be seen, in a sense, as verbs, in which they can be either one-place (epistemic raising) or two-place (root control) predicates. Furthermore, languages are different in their categorization of modals; while some have a clear-cut distinction between modals and verbs, others exhibit a less restricted system. Another analysis has projected that the epistemic modal is interpreted higher in the clause than the root.

With that said, if the modal *must* is used, it has been proposed that there is an intermediate stage in its interpretation, between epistemic and root. That is, a root entails an obligation while an epistemic conveys a necessity, and what comes in between seems to be of a higher necessity but with a lower obligation. Another exception is that the modal *might* suggests a case of permission if it is perceived as a root; however, it switches to a possibility in the case of epistemicity. A final point is that a certain modal can be either a root or an epistemic, and that depends mostly on its semantic interpretation. As a result, the syntactic representation is shaped by the influence of semantics.

Studies on English Double Modals

Schneider [9] writes that double-modal constructions were present in the utterances of speakers in some Southern American states as early as the mid-19th century, but had not been documented until the 20th century, when linguists began to investigate this phenomenon [10]. Since the end of the 1960s, DMs in English have gained the attention of many linguists, including Labov.

Linguists have offered various analyses of the DM phenomenon. By Labov's [11] standards, the first-position modal in a two-modal construction is an adverb. In a departure from other studies, which tend to focus on double-structure modals in Southern United States English (SUSE), Labov's [11] subjects were African-American English speakers residing in New York. In another study conducted in 1998, Labov, elaborating on ideas originally published in 1972, provides two examples in support of the adverbial analysis of the first modal. His findings contradict those of previous as well as subsequent studies, such as Boertien [12]; Di Paolo [13]; Battistella [14]; and afterward, the study performed by Hasty in 2012 [15].

Examples (75) and (76) from Labov's article are cited here for easy reference.

(8) You ***might could*** go to the church and pray a little, but you--that still ***might*** don't help you. ([11], p. 144)
(9) ***Useta*** they looked just alike, but now you can't tell the difference. I ***useta couldn't*** figure out which one was Richie which one was Eddie. ([11], p. 144)

In the case of (8), Labov claims that the *do*-support in the second clause is motivated by the adverb-like behavior initiated by *might.* In (9), since *useta*, in both clauses, is placed in an adverbial position, it is considered an adverb. The essence of Labov's idea is that the second position is the only tense-marked modal.

Hasty[15] casts doubt on the assumption that the first modal is an adverb. He highlights the problematic nature of Labov's account by referring to the fact that adverbs do not allow negation to the right, as is illustrated in (10) below. This leads one to question why modals would accept negation following the first modal in scenarios where they behave like adverbs. Additionally, Hasty draws attention to another problem in Labov's hypothesis by noting the restricted freedom of modals when it comes to their positions in the structure. Adverbs, on the other hand, have shown more flexibility by comparison.

(10) *I probably not can go to the store. ([15], p. 1720)

Boertien[12] offers another perspective on DMs. In his article, he postulates that DMs are verbs. He posits two structures for the two modals, showing how in one they act like a one-chunk verb, while in the other they are separate verbs. He also discusses questions, arguing that if the two modals appear together, their landing site before forming the question is T (see 11a below). Nonetheless, when only the first modal constructs the question, the landing sites are judged accordingly. The first modal in T is moved up to C, while V hosts the second one, as illustrated in (11b).

(11) a. You might can do this later. ([12], p. 99)
Structure: [$_{TP}$ [$_{T'}$ $_{T}$ might $_{T}$ can $_{T}$ [$_{VP}$]]]

b. Shouldn't you *oughta* do that? ([12], p. 97)
Structure: [$_{CP}$ [$_{C'}$ shouldn't $_{C}$ [$_{TP}$ [$_{T'}$ t $_{T}$[$_{VP}$ ought $_{V}$ $_{VP}$]]]]]

It is worth mentioning that Boertien[12] restricts the inversion of the first modal in questions to *should* and *might*, when followed by *ought.* Thus, in a DM construction such as *may could*, the modal that is raised to form the interrogative sentence is the second one only.

Di Paolo[13] states that the function of DMs is identical to the manner in which compound words work and can be a combination of the "tense-matched," such as *might could*, and the "tense-mixed," as in *may could*. These modal constructions suggest that DMs are one unit under T. She continues her analysis and proposes that first- and second-place modals can also invert as one element to form a question. Moreover, tense-matched DMs are more commonly acceptable than other DMs that exhibit mismatching. Her structure is identical to the one in (12).

One problem with this analysis, as Hasty[15] reports, is the separation of the two modals whenever there is insertion of an adverb, or negation, as in (13). The other problem that Hasty brings forward is that *might* can appear with modals other than *could*. This would cast doubt on Di Paolo's[13] proposal of an idiomatic chunk because the second modal is interchangeable with other modals, such as *should* and *would*.

(12) a. He might could write on the walls. ([12], p. 200)
Structure: [$_{TP}$ [$_{T'}$ might could $_{T}$ [$_{VP}$]]]

(13) a. He *might* **probably** *could* help you. ([15], p. 1724)
b. I *might* **not** *could* go to the store. ([15], p. 1724)

The differentiating aspect of Battistella's[14] analysis is the hypothesis that the first-position modal is "spurious" and the second-position one is "true." He is implicitly driven by Labov's assumption that the first-position modal is an adverb. Though he calls it by another name, his article urges linguists to research the second modal as opposed to the first. The structure he posits is two T-heads adjoined to two T's under TP, in which the first T-head hosts the "spurious" modal, and the "true" modal lands in the head of the second T (14a). In order for the derivation of DMs to converge, a NegP is

posited between the two T's in case of negation (14b), or the "true" modal *could* is allowed to move up to C if there is a question.

(14) a. [$_{TP}$ [$_{T'}$ might $_{T}$ [$_{T'}$ could $_{T}$ [$_{VP}$]]]]
b. [$_{TP}$ [$_{T'}$ might $_{T}$ [$_{NegP}$ not $_{Neg}$ [$_{T'}$ could $_{T}$]]]]

The most recent article that analyzes DMs in regard to earlier studies is that written by Hasty[15]. In his article he disputes the aforementioned studies, claiming that previous theories were limited in scope, for they were idealized depictions and definitions of DMs. He continues by establishing a modal phrase (MP), which he considers a better landing site for the first-place modal because it is away from the tense phrase (TP). He believes that this would account for the syntactically tenseless nature of the first modal. On the one hand, negation is inserted between MP and TP. On the other hand, a question is formed by moving the modal in T to C. Hasty's story of triple modals is interesting because he strongly rejects the existence of more than two modals in SUSE; thus, the third word after DMs is simply a verb, as illustrated in (15).

Among the main properties of English DMs that Hasty delineates are the following: there is no left-dislocated negation, the second-place modal is raised to construct a question, and the first-position modal is always epistemic. Note that the raising of the second-place modal represents additional variability in the analysis of double-modal question formation. The architecture that he brings forward is shown in (16). The structure of (15) is shown in (17).

(15) I **might should oughta take** these out of the oven. ([15], p. 1733)

(16) [$_{MP}$ [$_{M'}$ might $_{M}$ [$_{TP}$ [$_{T'}$ could $_{T}$]]]]

(17) Structure: [$_{MP}$ [$_{M'}$ might $_{M}$ [$_{TP}$ [$_{T'}$ should $_{T}$ [$_{VP}$ ought $_{V}$ [$_{TP}$ [$_{T'}$ to $_{T}$]]]]]]]

Having discussed English modals and the ways in which linguists have posited diverse grammatical and syntactic representations, we will proceed to a discussion of Arabic modals. In Section 3, I will give an account of word order in SA because of its effect on the syntax of modals. In the sub-sections of 3, I will provide a background for modals in SA, and then in Section 4, I will analyze BNA modals.

3. Word Order in SA

To be able to account for DMs in BNA, we must explore word order in SA. As many linguists have mentioned, the predominant word order in Arabic is either VSO or SVO. Moreover, other word orders can be found; "SA allows all possible logical orders" Mohammad[16] (p. 46). Examples of this alternation are highly documented in the literature on the Arabic language, although it is beyond the scope and purview of this paper to include all acceptable rearrangements of words. With that said, Mahfoudhi[17] adds that word order in SA can be used in different structures. Thus, VSO is the commonly used pattern, but SVO is ubiquitous and can be used for topicalization as well.

Word order is manipulated based on intention and meaning; Mahfoudhi[17] indicates that while VOS is used for emphasizing, OVS is preferred for contrasting. In BNA, the dominant word orders are SVO and VSO. On the other hand, OVS is rarely used.

3.1. Modals in SA

There is very little literature on modals in Arabic. Most extant studies are either old or cursory. It can be assumed that the absence of the term "modal" in Arabic has led to disagreements among linguists as to the qualities or factors that classify and define modals.

This deficiency of literature on modals extends to dialects of Arabic, rendering it nearly impossible to investigate colloquial spoken Arabic in depth. In Ryding's[18] book *A Reference Grammar of Modern Standard Arabic*, the word "modal" appears only once. She refers to *qad* "may/might" as a modal[18] (p. 450), although at another point in the book she refers to it as a particle that precedes the verb.

Zayed's[1] study on modals and modality in Arabic is, to my knowledge, the first extensive work targeting modals in Arabic. He puts forth an effort to match English modals

to their counterparts in SA. In his dissertation, he explains the restrictions and constrictions on the roles of SA modals. Some of the rules that he suggests are:

a. Prohibition of co-occurrence.
b. No imperfective forms, with the exception of *ya-statˁi:ʕ* 'he can.'
c. They do not get inflected, with only one exception (a prefix *ya-* for some modals with no semantic value, as in *ya-dʒib* 'must' and *ya-nbaɣi* 'should').
d. They must be followed by the complementizer *ʔan.* See more examples in Albaty[4] (pp. 62–65.)
e. They do not come after the complementizer *ʔan* and *li-*.
f. No negation with *lam* and *lan.*
g. No imperative form.

Alharbi[2] proposes some different characteristics:

a. Inflection is possible for purposes of tense and agreement.
b. Their arguments are finite and non-finite.
c. Modals precede the subject in VSO word order, and follow it in SVO.

(18) a. *qad a-statˁi:ʕu *(ʔan) **ʔa**na:m* (SA)
could 1.SG-can COMP 1.SG-sleep-(verb)
'I could can sleep'

b. *qad a-statˁi:ʕu ʔa-nnaum* (SA)
could 1.SG-can sleeping-(noun)
'I could can sleep'

(19) *laboudda *(ʔanna-hu) qad ðahab-a* ([19], p. 132)
should COMP-3.SG might went-3.SG
'he should might (have gone)'

The two examples in (18) support the idea that DMs can be found in SA. In (18a), the two modals are adjacent to each other without any intervening elements. The first modal*, qad* 'could,' is followed by *a-statˁi:ʕu* 'I can,' then by *ʔana:m* 'sleeping,' giving the sentence a string sequence of modal(M), modal(M), verb(V). However, an analysis of the double-modal construction would show that *tense* is presented in the form of a clitic, *ʔa*, resulting in a numeration of M, M, tense(T), V. The sentence in (18b) does not require *ʔan,* but the complement *ʔa-nnaum* is not a pure verb by definition. Regardless, it superficially has verb-like features because it surfaces as a gerund.

Moshref's example in (19) has two modals with an obligatory complementizer, *ʔanna*, in between. Its presence has ruled out the possibility of DMs due to the modals' occurrences in different clauses; *laboudda* is in the matrix clause, and *qad* exists in the embedded clause.

Another piece of evidence for the possibility of the co-occurrence of modals in Arabic comes from Alharbi[2]. According to his list of categories, there is one category of modals that he believes can coexist. His example is repeated here for easy reference.

The SA modals *jadʒib* 'must,' *janbaɣi* 'should,' *yumkin* 'may,' and *ya-statˁi:ʕ* 'can' are in Abdel-Fattah[3], Alharbi[2], Zayed[1], and Moshref[19]. *ya-qdir* 'could' and *yadʒu:z* 'possible' appear in Abdel-Fattah[3] and Alharbi[2]; *qad* 'could' and *laboud* 'ought to' are in Zayed[1] and Alharbi[2]; while *yuħtamal* 'might' is mentioned by Albaty[4]. Whereas Alharbi[2] includes *la:zim* 'should' and *sawfa* 'will,' Moshref[19] provides *jaðˁun* 'think,' *jabdu* 'appear,' and *ra:ħ* 'will.' The Egyptian *raayiħ* 'will,' mentioned in Benmamoun[20], is another variant of *ra:ħ.* According to Aoun et al.[21], *ra:ħ* 'will' is also found in Lebanese Arabic. Moreover, as found in Aljeradaat[22], *ʔilla* 'ought to' is actively used in Jordanian Arabic.

Some linguists have categorized the modals into two groups: modals and semi-modals. Abdel-Fattah[3] treats *qad*, *laboud*, and *rubbama* as semi-modals. Other linguists, such as Moshref[19], have compared Cairene Arabic to SA and reduced the set of modals to seven.

Despite the limitations stated above, I believe that the double-modal construction, however rare, exists in SA:

(20) *yimkin ni-gdar n-sa:ʕdak* ([2], p. 13)
might 1.PL-could 1.PL-help
'We might could help you'

He cites this sentence to demonstrate the coexistence of modals. According to him, the two modals (*yimkin* 'might' and *ni-gdar* 'we-could') have co-occurred adjacent to each other. Furthermore, if the complementizer *ʔan* is inserted following the two modals, this would make the sentence ungrammatical: **yimkin ni-gdar* ***ʔan*** *nsa:ʕdak*. I should note here that the first modal, *yimkin*, has no inflection. The second modal *ni-gdar*, on the other hand, has been inflected for person.

In Section 3.2, I will provide a review of Alharbi's discussion of modals, based on similar examples that he integrated into his study.

3.2. Analysis of SA Modals

Alharbi[2] proposes a construction for modals in SA. His assumption is different from those of other studies that investigate English double modals. For the purposes of his study, he combined two sentence structures from Ouhalla and Rivero (as cited by Alharbi , pp. 4–6)[2] in order to account for agreement in Arabic, as shown in (21).

(21) [CP [(NegP) [(MP1)[TP [(MP2) [AgrsP [(MP3)[(VmP)]]]]]]]]

He then breaks up the structure in (21) above to best accommodate the representations of modals:

(22) CP > **MP** > TP > AgrsP > TP > VP
(23) CP > TP > **MP** > non-finite CP
(24) CP > TP and/or AgrsP > **MP** > VP
(25) CP > TP and/or AgrsP > **VmP** > CP

In his paper, he further suggests that Arabic modals, depending on their category, can be base-generated in one of the three optional landing slots that are represented in boldface above. However, he[2] (p. 10) also restricts this optionality. When the tense is present or past, the subject can occupy any of the available landing sites, as in (26a) and (26b). In sentences with future tenses, the optional merger of the subject following the modal is blocked, as in (27).

(26) a. *(Sarah) yimkin (Sarah) tu-sa:fir (Sarah) alyo:m*
Sarah may Sarah 3.SG-travel Sarah today
'Sarah may travel today'
b. *(Sarah) yimkin (Sarah) safar-at (Sarah) ams*
Sarah might Sarah traveled.PST-3.SG Sarah yesterday
'Sarah might have traveled yesterday'

(27) a. *(Sarah) sawfa (*Sarah) tu-sa:fer (Sarah) ɣadan*
Sarah will Sarah 3.SG-travel Sarah tomorrow
'Sarah will travel tomorrow'

To account for the difference between (26) and (27), Alharbi[2] refers to the checking positions as the factor that prevents the merger for the future tense, but makes it permissible for the present and past.

I should mention here that Alharbi's analysis shifts back and forth between standard and non-standard varieties of Arabic. To expand on this, his analysis will be tested in the examples below, which come from non-standard dialects of Arabic and correspond to the structure of SA in (21) without [(VmP)], which mainly requires an inflected modal.

In (28), modals can be positioned relatively freely. In (28a), the modal appears as the second word in the sentence. Because of the flexibility of word order in the present tense, *laboud* can occupy the medial position. It is also possible to

initiate the phrase with a modal by flipping the word order. In this case, (28b) shows the modal before a noun, yet in (28c) it precedes the verb. Lastly, (29) is a supporting example which highlights the restricted variability in the construction of the future tense, in comparison to the present and past tenses. The optionality here is restricted due to the change in tense. *Sawfa* in (29) cannot be followed by a noun, and that is the reason why (29b) is grammatically inadequate.

(28) a. *Ali laboud ya-ðahab*
Ali should 3.SG-go
'Ali should go'
b. *laboud Ali ya-ðahab*
should Ali 3.SG-go
'Ali should go'
c. *laboud ya-ðahab Ali*
should 3.SG-go Ali
'Ali should go'

(29) a. *Ali sawfa ya-ðahab*
Ali will 3.SG-go
'Ali will go'
b. **sawfa Ali ya-ðahab*
will Ali 3.SG-go
'Ali will go'
c. *sawfa ya-ðahab Ali*
will 3.SG-go Ali
'Ali will go'

The structure in (23) is applicable to SA's modals that are followed by the complementizer *ʔan.* (28c) can be modified to meet the standardized version and becomes, as in (30):

(30) a. *laboud ʔan ya-ðahab Ali*
should COMP 3.SG-go Ali
'Ali should go'

b. *Ali laboud ʔan ya-ðahab*
Ali should COMP 3.SG-go
'Ali should go'

The third category, in (24), is meant for modals that accept inflection. The sentence in (31a) represents such a structure. On the other hand, Vm Modals are the fourth category in the analysis, which exhibits the structure in (25). This class of modals accepts inflection and an optional *ʔan.* In addition, modals in this class denote intention and ability. Vm Modals are verbs by nature, but are syntactically and semantically able to show some modality. The example in (31b) is a Vm Modal.

(31) a. (*Fadi) ya-statˁi:ʕ (Fadi) (ʔan) y-astaqi:l*
Fadi 3.SG-can Fadi COMP 3.SG-resign
'Fadi can resign'

b. (*Fadi) y-uri:d (Fadi) (ʔan) y-astaqi:l*
Fadi 3.SG-want Fadi COMP 3.SG-resign
'Fadi wants to resign'

Just as found in (26) and (27) above, the two copies of the noun do not co-occur in one sentence. While the complementizer *ʔan* is optional, the Vm Modal and verb are required in order to produce a grammatical sentence. The optionality in this sentence is a mixture between standard and non-standard.

Next, in Section 4, I will examine modals in BNA.

4. Modals in BNA

The most commonly used modals in BNA, in line with the modals outlined in Section 3, are: *yemken* 'may,' *laazim* 'must,' *qad* 'could,' *laboud* 'should,' *laʕal* 'could,' *istatˁa:ʕ* 'can,' *yagdar* 'could,' and *ra:ħ* 'will.' BNA modals can be plain (32a) or inflected (32b); and in some constructions, a complementizer is optional (32a).

(32) a. *yemken (ʔen-**ek**) te-ru:ħ* (BNA)
may COMP-2.SG 2.SG-go
'you may go'

b. *a-statˁi:ʕ ʔ-adʒi* (BNA)
1.SG-can 1.SG-come
'I can come'

I may add *yabi* 'intend/want' as a quasi-modal for the future. Via affixation, *yabi* can get a prefix for tense/gender and a suffix for number. This behavior can be extended to other modals that accept inflection. such as *a-statˁi:ʕ.* Nonetheless, some modals, including *laʕal*, accept suffixation only.

To avoid reliance on the author's intuition alone, five native speakers of BNA were consulted to confirm, reject, or suggest modifications to the modal constructions in the dataset. Any examples deemed ungrammatical or archaic were excluded. The final analysis is based solely on modal constructions that were verified as grammatical and naturally occurring in BNA speech.

4.1. Double Modals in Arabic: BNA

In this section, I will adopt some analysis by Jalabneh[23] of the structure of independent clauses in Arabic. Drawing on Chomsky's theory on the implementation of *pro*, he proposes an account that captures the derivation of verbal structures in Standard Arabic. His construction will best fit the aim of this investigation.

His basic structure for (33), without any modals, is as in (34).

(33) *sa:far-tu ila Toronto*
PST-travel-1.SG to Toronto
'I traveled to Toronto'

(34) [TP pro [T' +pst/sa:fartu [AgrsP [Agrs' <<sa:far>-tu> [VP [V' <sa:far> [PP [P' ila [DP]]]]]]]]

The verb, as the head of the sentence, is base-generated at the V head. It gets raised to Agrs to have its [+agree] feature checked for agreement (first-person masculine). Then it moves to T to check the [+tense] feature. Since *pro* is a silent element throughout the derivation, the verb *sa:far-tu* remains in T' to spell out the correct word order. Again, there is no need for raising *sa:far-tu* to C since there is no change in order.

Studies on DMs in English differ from those on Arabic for two main reasons. First, speakers of Arabic do not have to account for modal-raising to form a question. Furthermore, in English, there are further debates over which modal to raise: the first or the second. For double modals in BNA, I will adopt the structure in (34); however, this representation may need some modification depending on the sentence under scrutiny.

The following is a revised version of (34), with consideration to DMs:

(35) [MP [M' [(AgrsP [Agrs')[(MP [M') [(AgrsP [Agrs') [TP [T' [AgrsP [Agrs' [VP [V' [(PP)(DP)]]]]]]]]]]]]]

I do not agree with Alharbi[2] due to the fact that the data he used were mixed between SA and the spoken variety. Yet, another reason I decided not to adopt his structure is the absence of *pro*. *Pro,* from my point of view, is a critical aspect of accounting for the extended projection principle (EPP) in my data. For this reason, Jalabneh's[23] account is clearly presented and well-designed.

Something that should be added here is that interrogative statements in BNA do not require the raising of modals to C, as in English. Sentences can be transformed into questions, and their rising intonation may change the meaning drastically. Here, the contour pattern of the sentence is crucial to comprehension. That is done through a higher pitch towards the end of the utterance. Another way to form a question is to start with *do you* phrases (*teʕteqed* 'do you think?', *tetwaqaʕ* 'do you expect?', or *tedˁin* 'do you believe?'). Finally, negation can be added to the data in a form of a negation element *muhub*, *la*, or the morpheme *ma-*. Negation is always a pre-position in BNA.

4.1.1. Plain Modals

This subsection is an introduction to plain modals in BNA. It will be stated here that the syntactic structure of modality is a construction of a single modal, exhibiting similarity to the majority of other languages. Yet, a sentence with a plain modal can take an optional complementizer, *ʔen*. When a sentence has DMs, in most cases if it is needed, the complementizer is freely inserted only once after either modal. In other words, complementizers are not allowed to appear twice in one independent clause.

Single Plain Modals

(36) a. *yemken te-ruːħ* (BNA)
may 2.SG.PRES-go
'you may go'

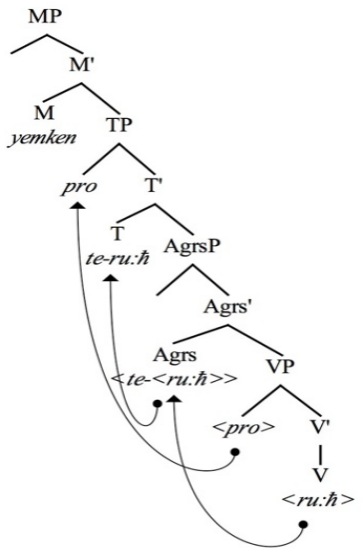
b. *laboud ya-lʕab* (BNA)
should 3.SG.PRES-play
'he should play'

In (36a) and (36b), *yemken* or *laboud* is a plain modal preceding the main verb. The modal is not inflected and hardly gives a meaning by itself, unless there is a reference to discourse beforehand. The verb is inflected for tense, but does not show any sign of suffixation, while the morpheme attached to the verb has both tense and agreement features.

Since we have only one modal and one inflected verb, we need to omit unnecessary specifiers and heads. The bracketed structure in (37) is good for (36a) and (36b). See also the tree in (38) that represents (36a).

(37) [$_{MP}$ [$_{M'}$ yemken $_{M}$ [$_{TP}$ pro [$_{T'}$ te-ruːħ / ya-lʕab [$_{AgrsP}$ [$_{Agrs'}$ <te-ruːħ /ya-lʕab> [$_{VP}$ <pro> [$_{V'}$ <ruːħ> / <lʕab>]]]]]]]

(38)



pro starts at the bottom of the tree, at the specifier of VP, in order to receive its "agent" theta-role, then ascends to Spec of TP to check the EPP. *Yemken/laboud* are to be *in situ* since they occur in the same position without inflection or alternation. *Ruːħ*, on the other hand, is base-generated under the V head in the projection of V'. To be able to get its agreement and tense, it is raised first to Spec of AgrsP, and then to TP.

Single Plain Modals with (ʔen)

(39) a. *yemken (ʔen-**ek**) te-ruːħ* (BNA)
may COMP-2.SG 2.SG-go
'you may go'

b. *laboud (ʔen-**uh**) ya-lʕab* (BNA)
should COMP-3.SG 3.SG-play
'he should play'

(39a) and (39b) are an extension of the examples in (36), but this time with a complementizer. They show an interesting phenomenon in that the optional (*ʔen*) can be inflected. Not only it is a morpheme, but it also attaches itself to assorted suffixes. Although the first bolded (in 39a) suffix refers to *you*, the second (in 39b) is a variant of *he.*

In (36), the meaning of the modal does not encode any level of assertion or obligation. Nevertheless, the complementizer in (39) conveys a sense of assurance, accompanied by a high level of certainty that the decision of going or playing may have already been made.

Double Plain Modals

(40) a. *yemken laːzem te-ruːħ* (BNA)
may must 2.SG-go
'you may must go'
b. *qad laboud ya-lʕab* (BNA)
could should 3.SG-play
'he could should play'

(41) a. *laːzem yemken te-ruːħ* (BNA)
must may 2.SG-go
'you must may go'
b. *laboud qad ya-lʕab* (BNA)
should could 3.SG-play
'he should could play'

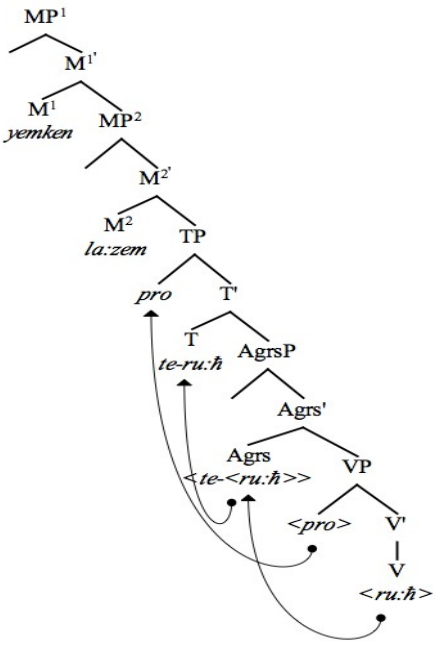
In (40) and (41) above, the double-modal constructions reinforce the theory that the sentence in BNA is strongly

controlled by the initial-position modal. If a sentence commences with yemken or qad, it sends a signal of uncertainty, but the sentence could convey more confidence if it is initiated with modals such as la:zem and laboud. Upon a closer look, one could interpret (40a) as "given a little knowledge, I conclude that you need to go." However, for (41a), the reading is supposed to be, "you are obliged to go."

Syntactically, it could be argued here that plain DMs in BNA appear in one clause with two modal phrases (MPs). It is quite implausible to adopt Hasty's[18] one MP above TP. In SA, and particularly in BNA, the modal does not carry a tense. Thus, the verb is the element that controls the tense and spreads it to the left. As an example, (42) presents the structure of (40a); see also the tree in (43).

(42) [MP1 [M1' yemken M1 [MP2 [M2' la:zem M2 [TP pro [T' te-ru:ħ T [AgrsP [Agrs' <te-<ru:ħ>> Agrs [VP <pro> [V' <ru:ħ> V]]]]]]]]]

(43)



The verb is base-generated at V, then moves to Agrs to check the agreement. When *te-* is attached to the verb, the copy of *te-* and *ru:ħ* are raised to T to check the [+tense] feature. *Pro* is not pronounced at Spell-out, and the sentence reaches its final destination with the correct word order.

4.1.2. Inflected Modals

In addition to being constructed with one or more plain modals, a sentence in BNA can hold one inflected modal. Mostly, the double-modal structure consists of one plain and one inflected modal, with free ordering. With that said, it should be noted that two inflected modals in one DM construction can show up in the dialect.

Single Inflected Modals

(44) *yemken-ik nesi:-t*
may-2.SG forgot-you
'you may have forgotten'

(44) is different from (36a), *yemken te-ru:ħ* 'you may go,' because of the affixation that the modal undergoes. *Ik,* in *yemken-**ik**,* is a morpheme that connects the pronominal agreement marker to the modal. The complementizer *ʔen* is absent in (44) syntactically, yet it is realized phonologically when the gemination of the preceding syllable has blocked *ʔen* from appearing in a written form. Since the complementizer is not written, I will treat the sentence as a one-clause construction that requires two AgrsPs.

Let us deconstruct (44) in (45). As shown in the structure below, there is a local relation between the positions of *pro* and the two Agrs heads.

(45) [MP [M' yemken-ik [AgrsP1 [Agrs1' <-ik> [TP pro [T' nesi:-t T [AgrsP2 [Agrs2' <<nesi:>-t > [VP <pro> [V' <nesi:>]]]]]]]]]
(add local)

Inflection on the First Modal

(46) *laʕal-ik yemken it-ħawel*
could-2.SG may 2.SG-try
'you could may try'

In (46), we have a case in which the first modal is inflected. Since there are two inflections on two words in the sentence, we posit two AgrsPs in one CP. The first AgrsP is projected between MP1 and MP2; it is where the morpheme *ik* resides before movement.

However, the second AgrsP is constructed between TP and VP in order to trigger the prefix *it-*; see (47). The second Agrs head is the one that bears the second-person feature. This feature is then introduced to the verb. On the other hand, the [+tense] feature is linked to the verb. It starts lower at the V head to check its theta-role with *pro*, and then moves up to the specifier of TP.

(47) [MP1 [M1' laʕal-ik [AgrsP [Agrs' <-ik> [MP2 [M2' yemken [TP *pro* [T' it-ħawel [AgrsP [Agrs' <it-<ħawel >> [VP <pro> [V' <ħawel>]]]]]]]]]]]

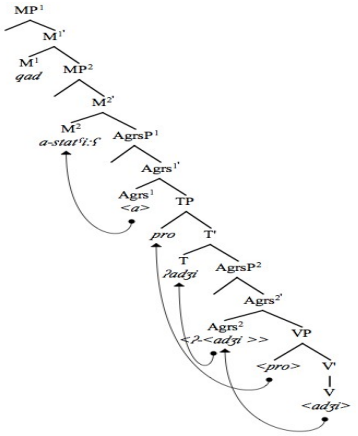
Inflection on the Second Modal

(48) *qad a-statˤi:ʕ ʔ-adʒi*
qad 1.SG-can 1.SG-come
'I could can come'

qad in (48) resides in the head M of MP^1. *A-statˤi:ʕ* is the second modal, and it is inflected by the clitic *a-*. The verb also is inflected for both tense and number. Contrary to the structure in (47), $AgrsP^1$ is initiated between MP^2 and TP, and $AgrsP^2$ is established between TP and VP. The structure is as in (49); see also the tree in (50).

(49) [MP1 [M1' qad M1 [MP2 [M2' a-statˤi:ʕ M2 [AgrsP1 [Agrs1' <a> Agrs [TP pro [T' ʔadʒi T [AgrsP2 [Agrs2' <ʔ-<adʒi >> Agrs [VP <pro> [V' <adʒi> V]]]]]]]]]]

(50)



4.2. DMs with Future and Past Tenses

4.2.1. Future

(51) a. *yemken ra:ħ ʔ-adʒi*
may will 1.SG-come
'I will may come'

b. *ra:ħ yemken ʔ-adʒi*
will may 1.SG-come
'I will may come'

c. *yemken (ʔen-i) ra:ħ ʔ-adʒi*
may COMP-1.SG will 1.SG-come
'I will may come'

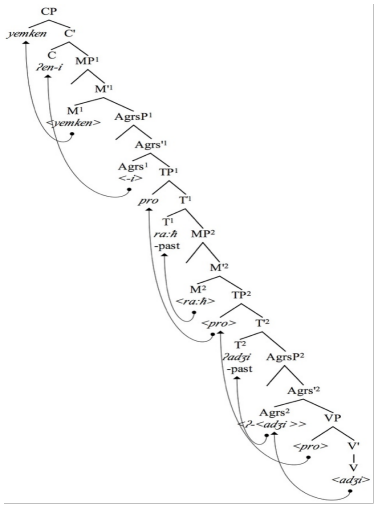
d. **ra:ħ (ʔen-i) yemken ʔ-adʒi*
will COMP-1.SG may 1.SG-come
'I will may come'

The future modal in BNA, *ra:ħ*, exhibits the same behaviors as other modals. However, the complementizer *ʔen* is disallowed when the modal *ra:ħ* is sentence-initial.

To better compare the structure in (42) with (52), let's give (52) a close look to see how it is represented with the optional complementizer in tree (53).

(52) [CP yemken ([C' ʔen-i C [MP1 [M1' <yemken> M1 [AgrsP1 [Agrs1' <-i> Agrs1) [TP pro [T' -past ra:ħ T [MP2 [M2' <ra:ħ> M2 [TP <pro> [T' ʔadʒi [AgrsP2 [Agrs2' <ʔ-<adʒi >> Agrs2 [VP <pro> [V' <adʒi> V]]]]]]]]]]]]]]]]

(53)



As is illustrated in (53), the verb *adʒi* starts lower in the tree to check its theta-role with *pro*. Then, the verb gets moved up to the lower Agrs head for agreement. After the verb moves to the immediate right of the prefix, we attach *ʔ-adʒi* onto the Tense head to get its status recognized as an imperfective. *Pro*, on the other hand, starts lower in order to receive its "agent" theta-role. However, for the purpose of checking its EPP, it gets raised to Spec of the lower TP, then once again to Spec of the higher TP.

Ra:ħ, as a verb that carries future modality, starts at the head of MP2. Because it has a tense value of [-pst], its final landing site is the head of the higher TP.

It should be noted that the AgrsP1 in tree (50) is projected in a position lower than that of the second modal. That is due to the fact that the second modal carries inflection. However, in tree (43), the AgrsP is not a part of the syntactic structure intended for the modal. The only AgrsP in (43) is projected lower than TP and higher than VP, for the purpose of getting the verb its agreement before it moves to the head of T for tense-checking. In (53), on the other hand, we have an optional, inflected complementizer interfering between the two modals. That is the reason why the higher AgrsP1 is projected between MP1 and MP2.

There is a strong motivation for the verb's first-person feature *ʔ-* to impose interpretation emphasis on the complementizer *ʔen*. For this reason, the complementizer's first-person affix *-i* starts at the head of AgrsP1 to get its agreement feature, and then it is adjoined to the head CP to the right of the complementizer. In addition to that, the first-place modal *yemken* is projected at the head of MP1, and in turn it is raised to Spec of CP to spell out the correct word order, as being the focus of the sentence.

Turning now to the overall result observed in the trees, we see that the "person" features originate with *pro* as the only DP. It is the only element in the sentence which enters with person features, and its agreements all arise from a local checking relationship. The local relation between *pro* and the Agrs head contains one step in the derivation, where the Agrs heads are adjacent to a copy of *pro.* The local relationship, motivated by the raising of *pro*, pushes person features to be checked on the Agrs heads.

Furthermore, the same local relationship is found in the C head of the CP. C is included to mark focus/emphasis, and it attracts agreement. For uniformity of analysis, we posit that *yemken* moves from the head of MP1 to Spec of CP. This final raising of the first modal is similar to other instances of VSO word order, in which a verb can come first.

4.2.2. Past Tense

(54) a. *yemken laʕal-uh ra:ħ*
may could-3.SG went-3.SG
'he may could have gone'
b.? *laʕal-uh yemken ra:ħ*
could-3.SG may went-3.SG
'he could may have gone'

The future modal in BNA, *ra:ħ*, has another verb-like property. DMs with the past tense, as in (54a) and (54b), bear similarity to the examples in (46) and (48), except that the verb *ra:ħ* in (54) holds a [+pst] feature. By extending the "past" construction to double modals, we can simply exchange the verb *ra:ħ* 'he went' with any other verb. However, the newly inserted verb does need to match the person feature of the modal.

Furthermore, the person affix occurring on the verb could be accompanied by another morpheme referring to another person. In line with SA, BNA is morphologically rich and can have the verb inflected twice, as in (55).

(55) *yemken laʕal-ah sa:maħ-t-hum*
may could-3.SG forgave-3.SG-3.PL
'she may could have forgiven them'

4.3. The Three-Modal Mystery

(56) a. *laʕal-uh yemken ya-gdar*
could-3.SG may 3.SG-can
'he could may can'
b. *yemken laʕal-uh ya-gdar*
may could-3.SG 3.SG-can
'he may could can'
c. ? *yemken ya-gdar laʕal-uh*
may 3.SG-can could-3.SG
'he may can could'
d. ? *laʕal-uh ya-gdar yemken*
could-3.SG 3.SG-can may
'he may could can'

With respect to the categorization of Arabic modals, mentioned in Section 3.2, Alharbi[2] did state that the word ya-gdar displays a "verb-modal" sort of combination. If ya-gdar is considered a modal, then we have triple modals, unless we hold Hasty's[15] assumption to be correct and say that the third-place modal is a verb. Even so, how can Hasty account for the alternation in the positions of the three words in (56)?

Hasty's argument against triple modals may gain some support from the data if we assume that no two inflected modals are permitted within one clause. However, this is not an option because BNA allows a sentence like the one in (57), in which each modal is subject to one inflection in a fully acceptable phrase. It is worth mentioning that this sentence is not hypothetical and is attested to be correct.

(57) *laʕal-ik ti-statʿi:ʕ ta-gdar*
could-2.SG 2.SG-can 2.SG-could
'you could can could'

As Section 4 has shown, modals in BNA can be single or double. In some cases, they require an inflection, but they are always followed by the main verb. Section 5 presents the paper's conclusion.

5. Conclusions

Hasty's article about double modals inspired a search for these constructions in a language other than English. This investigation revealed the same type of behavior found in the Southern United States and some varieties of African-American English. Studies on double modals have inspired a return to my variety of Arabic for linguistic inquiry. Upon analyzing the BNA, I have documented what I believe should be considered a double-modal construction.

Like many other languages, SA has several modals. Some studies suggest that these modals can appear in sequence but not directly next to each other, as a complementizer is placed between them [1, 4]. As a spoken variety of Arabic, BNA uses some of these modals in its own unique constructions, breaking the restriction on modal co-occurrence found in SA. This results in a distinct sentence structure in BNA.

The analysis performed throughout the composition of this paper establishes that DMs in BNA are different from modals in the English language. Since DMs in BNA are inflected for tense, number, and gender, none of the syntactic structures highlighted by the linguists [12–15] who studied DMs in English could be applied.

Referring back to Hasty [15] and Jalabneh [23], it is possible to adopt the MP, combined with AgrsP and *pro*. While the MP is relevant to base-generated modals, AgrsP is a crucial device to account for agreement. Early studies are evidently impossible to apply by virtue of the absence of tense on BNA modals; the tense of a sentence with modals is realized when the "wall" of the verb is hit. Therefore, the verb is a fundamental element to understanding BNA modals. Otherwise, the interlocutors would find it necessary to refer back to the discourse in order to approximate the exact representation of the modals. That is why this study's proposal for DMs in BNA has projected the two MPs as being higher than TP and VP when there is no complementizer.

A notable exception occurs when a modal refers to futurity, such as ra:ħ in (51), which carries a strong [-pst] tense feature. On the other hand, if ra:ħ appears in a phrase-final position as in (54), it maintains a [+pst] feature since it is, by all means, referring to the past.

Finally, the construction of questions and negations with BNA modals and DMs remains understudied. However, in order to get a sense of how negation is structured in BNA, we present some examples in (58).

(58) a. la yemken te-ru:ħ (BNA)
NEG may pres-2.SG-go
'you may not go'

b. yemken ma-te-ru:ħ (BNA)
may NEG-pres-2.SG-go
'you may not go'

c. ma-yemken te-ru:ħ (BNA)
NEG-may pres-2.SG-go
'you may not go'

d. muhub yemken te-ru:ħ (BNA)
NEG may pres-2.SG-go
'you may not go'

e. qad ma-a-statˁi:ʕ ʔa-dʒi (BNA)
could NEG-1.SG-can 1.SG-come
'I could cannot come'

f. muhub la:zem yemken te-ru:ħ (BNA)
NEG must may pres-2.SG-go
'you must may not go'

It is obvious from the examples above that the negative particles la and muhub in (58a) and (58d) appear at the beginning as independent lexical items, yet the prefix ma- in (58b) and (58c) can be attached initially to the modal or the main verb. The negation of a double modal, in (58e), is realized as a morpheme attached to the leftmost edge of the second modal. Other cases may show negation as a lexical item preceding the two modals, as is illustrated in (58f). With that said, the conditions for choosing one negative particle over another, as a well as the construction of questions and negations, still need further exploration and are left for future work.

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