

# Agree in the Functional Domain: Evidence from the Morphosyntax of Positive and Negative Imperatives in Standard Arabic

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## 1. Introduction: Morphosyntax of imperatives in Standard Arabic

It has been noted in the literature on Standard Arabic (SA, henceforward) (Wright 1898, Benmamoun 2000) that the prefix in an imperfective verb form represents person agreement (and occasionally gender), whereas the suffix stands for number agreement. At least for second person forms that is indeed the case: all the second person imperfective forms in (1) start with *ta-*.<sup>1,2</sup>

|            |                                  |
|------------|----------------------------------|
| (1)        | Imperfective (in the indicative) |
| 2sgmas     | ta-ktub-u                        |
| 2sgfem     | ta-ktub-ii-na                    |
| 2dumas/fem | ta-ktub-aa-ni                    |
| 2plmas     | ta-ktub-uu-na                    |
| 2plfem     | ta-ktub-na                       |
|            | “write”                          |

Now, given this, let’s compare the second person imperfective forms in (1) to the positive imperative verb forms given in (2):

|            |                     |
|------------|---------------------|
| (2)        | Positive Imperative |
| 2sgmas     | ?u-ktub-Ø           |
| 2sgfem     | ?u-ktub-ii          |
| 2dumas/fem | ?u-ktub-aa          |
| 2plmas     | ?u-ktub-uu          |
| 2plfem     | ?u-ktub-na          |
|            | “Write!”            |

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\*I’m thankful to El-Abbas Benmamoun and Abderrahman Zouhir, and the audiences at both the 22nd Arabic Linguistics Symposium held at University of Maryland, and the 39<sup>th</sup> ACAL conference held at University of Georgia, for useful questions and comments. Many thanks are due to Akinloye Ojo for his help as I was writing and revising the paper, and also to two anonymous reviewers for their valuable comments. Needless to say, all errors or shortcomings in this work remain entirely my responsibility.

<sup>1</sup> Similarly, all third person forms, with the exception of the singular feminine form, start with *ya-*, the exception is probably to mark gender distinction between the masculine and feminine third person singular forms, given the absence of any suffix on such forms. The same may be said about the prefix in first person forms, where the absence of any suffix on the verb form may also be the reason why the prefix signals number in addition to person, gender being irrelevant for first person forms in this language.

<sup>2</sup> I will use the following abbreviations in the paper, particularly in the glosses of the Arabic data: 1, 2, 3 = first, second, and third person; mas = masculine; fem = feminine; sg = singular; du = dual; pl = plural; NOM = nominative; ACC = accusative; DAT = dative; IND = indicative; SUB = subjunctive; JUS = jussive; FUT = future; IMPER = imperfective; Asp = aspect; T = tense; C = complementizer; Neg = negation particle; SUBJ = subject; OBJ = object; IMP = imperative.

Note first that the initial glottal stop as well as the following vowel in the positive imperative forms in (2) are both epenthesized for syllabification purposes. That aside, one can see that the positive imperative forms are actually the imperfective forms minus the second person prefix *ta-*: Both forms have the same vocalic melody and the same number and gender suffixes. That imperative forms are derived from imperfective forms is further supported by the fact that imperatives appear with the so-called jussive marker, which is a prototypical property of imperfectives. Notice that jussive markers, like subjunctive and indicative markers in the language, are formal features and do not carry any semantic content. As a matter of fact, they are treated as “cases” for verbs in Arabic traditional grammar. In this paper, I will follow Fassi Fehri (1993) in referring to these markers as “temporal cases.”<sup>3</sup>

To summarize, Arabic positive imperatives have two characteristic morphosyntactic features: (a) they appear without the person agreement prefix, and (b) they inflect for the jussive temporal case. Any analysis of Arabic imperatives needs to account for these two properties and explore whether they are related.

As it turns out, however, negative imperatives do not show both properties. While negative imperative verbs still appear in the jussive, they, however, have to show person agreement. Consider the paradigm in (3):

|     |            |                     |
|-----|------------|---------------------|
| (3) |            | Negative Imperative |
|     | 2sgmas     | laa ta-ktub-Ø       |
|     | 2sgfem     | laa ta-ktub-ii      |
|     | 2dumas/fem | laa ta-ktub-aa      |
|     | 2plmas     | laa ta-ktub-uu      |
|     | 2plfem     | laa ta-ktub-na      |
|     |            | not write           |
|     |            | “Don’t write.”      |

Negative imperative forms are thus similar to the imperfective forms in (1) in having the second person prefix, while at the same time sharing the jussive marking with the positive imperative forms in (2).

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<sup>3</sup> Traditionally, such markers have been referred to as “moods” in some Arabic grammars. This has occasionally led to confusion with mood/modality notions, which are obviously not involved here. For one thing, different temporal case markers can occur in sentences that have the same illocutionary force, as the case is in negation. Consider the following examples:

|        |                        |                                 |          |              |
|--------|------------------------|---------------------------------|----------|--------------|
| (i) a. | laa                    | ya-qraʔ-u                       | Zayd-un  | ʔal-kitaab-a |
|        | Neg <sub>PRESENT</sub> | IMPER-read 3sgmas-IND           | Zayd-NOM | the-book-ACC |
|        |                        | “Zayd is not reading the book.” |          |              |
| b.     | lam                    | ya-qraʔ-Ø                       | Zayd-un  | ʔal-kitaab-a |
|        | Neg <sub>PAST</sub>    | IMPER-read 3sgmas-JUS           | Zayd-NOM | the-book-ACC |
|        |                        | “Zayd did not read the book.”   |          |              |
| c.     | lan                    | ya-qraʔ-a                       | Zayd-un  | ʔal-kitaab-a |
|        | Neg <sub>FUTURE</sub>  | IMPER-read 3sgmas-SUB           | Zayd-NOM | the-book-ACC |
|        |                        | “Zayd will not read the book.”  |          |              |

The sentences in (i) are all negative declarative sentences that only differ in tensehood properties, as indicated by the negation marker used. Depending on which negation marker is used, the verb appears with a particular temporal case marker. Since such sentences do not differ along any semantic mood or modality notions, it is better to avoid using the term “mood” when referring to morphological endings of verbs in such contexts. A second argument why such temporal case markers are formal features and have no semantic content is based on the fact that the same marker can appear in a heterogeneous set of grammatical contexts (Benmamoun 2000). For example, the jussive, as we have seen, is used in both imperatives and in past tense negation. It is also used in conditional clauses. It is quite implausible to unify these grammatical contexts under one semantic category to explain why their verbs appear in the jussive. In this paper, I will therefore use the more descriptively adequate term “temporal case.”

This leaves us with the following two questions regarding imperatives in SA:

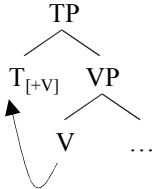
- (4) a. Why is person agreement morphologically manifest on the verb in negative imperatives, but not in positive imperatives?  
 b. Does the presence of jussive marking tell us anything interesting about the morphosyntactic properties of imperatives at all?

In the next section I discuss Benmamoun's (2000) answers to the questions in (4).

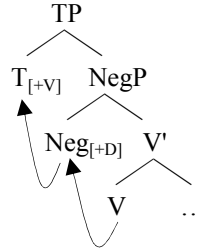
## 2. Benmamoun's (2000) minimalist analysis of SA imperatives

Benmamoun (2000) suggests an answer to the question in (4a) cast within a minimalist system of categorial feature checking of functional heads. For him, in positive imperatives, the head carrying the IMP(erative) feature is T, which is specified for a [+V] feature only, but no [+D] feature. Since person agreement, according to Benmamoun, is what checks the [+D] feature of T, absence of person agreement in positive imperatives follows from absence of that [+D] feature. In negative imperatives, by contrast, while imperative T still has the same categorial feature specification as in positive imperatives (i.e., [+V] only), it is the introduction of the Neg head that now requires person agreement, under the assumption that Neg is always [+D]. Schematic diagrams for the derivational difference between positive and negative imperatives are given in (5):

- (5) a. Derivation of positive imperatives



- b. Derivation of negative imperatives



In this paper, I will argue that Benmamoun's original insight is indeed correct: There is something about the feature structure of functional heads that can explain the facts. Unlike Benmamoun, however, I will propose that it is not the features of Neg that are involved here; rather, it is the features of imperative C(omplementizer).

One piece of evidence that the features of Neg cannot account for the facts comes from a second paradigm of positive imperatives in SA: the so-called *li-*imperatives, which are introduced by the particle *li-*, as in (6):

- (6) 2sgmas            li-ta-ktub-Ø  
 2sgfem            li-ta-ktub-ii-Ø  
 2dumas/fem       li-ta-ktub-aa-Ø  
 2plmas            li-ta-ktub-uu-Ø  
 2plfem            li-ta-ktub-na  
                       "Write."

While the verb forms in (6) are positive imperatives, they resemble negative imperative forms in that the verb does show person agreement. Since we presumably need an analysis that accounts for the presence of the person morpheme in both contexts in the same fashion, we cannot rely on the features of Neg to explain the presence of person agreement in such cases, since the imperatives in (6) are not negative.

Notice also that Benmamoun's analysis does not explain the presence of jussive marking on the imperative verb. Speaking in general of temporal cases (or mood markings as he refers to them), Benmamoun notes that these markers are not formal features; rather they mark a "syntactic dependency relation between a verb and its complement" (Benmamoun 2000: 31). It is not clear,



relevant functional heads (Chomsky 2001a; Boeckx and Stjepanović 2001). While this might help us avoid the problem mentioned above, it still requires empirical validation. In essence, we need to make sure that all the phenomena that have been subsumed under syntactic HM before still follow under the morphophonological HM approach. In Soltan (2007, 2008), I argue that certain effects of HM can be derived from minimalist mechanisms of formal feature licensing (in particular, the operation Agree), while other properties of HM follow from morphophonological considerations. This proposed division of labor between syntax and morphophonology is shown to have several empirical advantages with regard to the several negation paradigms that SA has. In this paper, I will argue that this approach can also be extended to account for the morphosyntactic properties of imperatives in SA that I introduced in this section.

The rest of the paper is organized as follows: In Section 3, I discuss the morphosyntax of clausal negation in SA, and show how an Agree-based analysis is able to account adequately for the facts. In Section 4, I extend this analysis to account for the morphosyntax of both positive and negative imperatives in SA. In Section 5, I discuss the cross-linguistic implications of the proposed analysis for the often observed (in)compatibility between imperatives and negation in human languages, and how this instance of cross-linguistic variation follows from the proposed analysis. Section 6 sums up the conclusions of the paper.

### 3. Heads of a feather “Agree” together: Tensed negation in SA

In Soltan (2007, 2008), I present a set of facts from SA that show that functional heads can realize the morphological features of other functional heads in the structure, subject to locality conditions. In particular, I discuss the several strategies of clausal negation in the language as well as the complementizer system in embedded clauses. In this section, I will illustrate this analysis with the analysis of tensed negation in the language, referring the interested reader to Soltan (2007, 2008) for an elaborate discussion of other phenomena that can be accounted for in the same way. In Section 4, I extend that analysis to account for the imperative facts discussed in Section 1 of the paper.

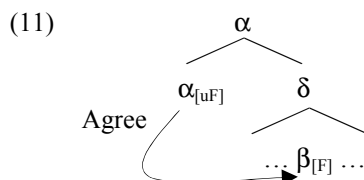
The clausal negation paradigm in SA provides empirical evidence for the interaction between heads in the functional domain. There are several negation markers which differ in their morphosyntactic features. In this section, I focus only on the tense-inflecting negation marker, which appears in different forms depending on the tense of the clause. The different forms of this marker are illustrated in (10) below:

- |         |                        |                                 |          |              |
|---------|------------------------|---------------------------------|----------|--------------|
| (10) a. | laa                    | ya-qaʔ-u                        | Zayd-un  | ʔal-kitaab-a |
|         | Neg <sub>PRESENT</sub> | IMPER-read 3sgmas-IND           | Zayd-NOM | the-book-ACC |
|         |                        | “Zayd is not reading the book.” |          |              |
| b.      | lam                    | ya-qaʔ-Ø                        | Zayd-un  | ʔal-kitaab-a |
|         | Neg <sub>PAST</sub>    | IMPER-read 3sgmas-JUS           | Zayd-NOM | the-book-ACC |
|         |                        | “Zayd did not read the book.”   |          |              |
| c.      | lan                    | ya-qaʔ-a                        | Zayd-un  | ʔal-kitaab-a |
|         | Neg <sub>FUTURE</sub>  | IMPER-read 3sgmas-SUB           | Zayd-NOM | the-book-ACC |
|         |                        | “Zayd will not read the book.”  |          |              |

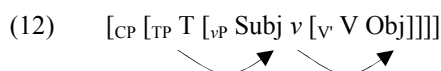
As we see in (10), it is the Neg head that marks the tense of the sentence, whereas the verb appears in the non-tensed imperfective form, inflecting for temporal case, as noted earlier (see fn. 3). Notice that the data in (10) also illustrate the three temporal cases that SA has: the (default) *indicative* marker (10a), the *jussive* (10b), and the *subjunctive* (10c). Notice finally that there is an adjacency requirement on both the negation particle and the verb, such that no intervening material (e.g., the subject *Zayd-un*) may occur between them.

In Soltan (2007, 2008), I argue against the standard analysis of tense-inflecting negation in SA in terms of head-to-head movement (Ouhalla 1991, 1993; Shlonsky 1997; Benmamoun 2000) on the basis of theoretical and empirical evidence. Instead, I propose to account for the phenomenon in terms of a formal feature licensing relation between syntactic heads. In particular, following Chomsky (2000,

2001a, 2001b), I assume that licensing of formal features such as case and agreement is induced via *Agree*, a primitive operation built in the grammar.<sup>4</sup> *Agree* is an operation that establishes a relationship between an element  $\alpha$  (call it a *Probe*) with uninterpretable features [uF] and an element  $\beta$  (call it a *Goal*) with matching interpretable features [F] in the c-command domain of  $\alpha$ , whereby the uninterpretable features on the Probe are *valued* by the matching interpretable features on the Goal, as shown in (11):



Typical examples of uninterpretable features are  $\phi$ -features (i.e., person, number, and gender) on T, wh-features on interrogative C(omplementizer), or Case features on nominals. For example, nominative case on subjects is licensed under *Agree* with T, whereas accusative case on objects is licensed under *Agree* with  $v$ :



*Agree* is also assumed to be subject to an “activity” condition: To get into an *Agree* relation, both Probe and Goal have to be “active,” that is, each has to have an uninterpretable feature or features to value as a result of the operation, e.g., *Agree* between T and a nominal that has an unvalued case feature is permissible, but *Agree* between T and a nominal that has already valued its case feature (perhaps via a prior *Agree* relation with another head or via lexical case-assignment) is not allowed.

Going back to clausal negation in SA, one thing we observe about inflecting negatives in this language is that the phenomenon has the flavor of formal feature licensing in the minimalist sense. For one thing, a tense feature on Neg is presumably a formal feature, on par with  $\phi$ -features on T or Neg. On the other hand, formal feature licensing through head movement gives rise to a number of theoretical problems that have remained unsolved (cf. the discussion of the traffic rule problem in Section 1 of this paper), in addition to some empirical problems (cf. Soltan 2007, 2008, for a discussion). The question now is: How does *Agree*-based syntax fare in this respect? If *Agree* is a head-head relation, as Chomsky (2001a,b) argues, then it should not be constrained to apply only between functional heads and substantive categories. Rather, any two elements in the structure should be able to engage in a Probe-Goal relation if the conditions for such a relation are met, i.e., that they both have uninterpretable features that require valuation. I would like to argue here that Neg in SA can in fact engage in an *Agree* relation with T in certain contexts, thereby giving rise to tensed negatives. I present an explicit derivation below.

Given the facts of tensed negation presented in this section, I will make the plausible assumption that Neg in SA may enter the derivation with an uninterpretable Tense feature [uT] or uninterpretable  $\phi$ -features [u $\phi$ ], each of which requires licensing in the syntax under standard minimalist assumptions. Let’s see how this analysis works.

Consider the case of past tense Neg, as in the following example:

- (13) lam ya-qra?-Ø Zayd-un ?al-kitaab-a  
 Neg<sub>PAST</sub> IMPER-read 3sgmas-JUS Zayd-NOM the-book-ACC  
 “Zayd did not read the book.”

<sup>4</sup> For an elaborate discussion of formal feature licensing and arguments for *Agree* and against earlier approaches, see Soltan (2007) and references cited there.

Suppose we assume that in these cases, Neg has an uninterpretable tense feature, [uT]. Recall also that in contexts of tensed negatives, the verb appears inflected for what we called temporal case, following Fassi Fehri (1993). Since such a feature is also uninterpretable, let us assume that T has some unvalued temporal case feature, call it [uTC]. Given this, then at the point of the derivation where Neg is introduced we have the following structure, irrelevant details ignored:<sup>5</sup>

$$(14) \quad [{}_{\text{NegP}} \text{Neg}_{[\text{uT}]} [{}_{\text{TP}} \text{T}_{[+\text{Past}]/\phi} [{}_{\text{uTC}}] [{}_{\text{VP}} \text{Subj } V_{\text{ROOT}\dots}]]]$$

Agree

This is a standard Probe-Goal relation that requires Agree to apply, valuing both the tense feature on Neg and the temporal case feature on T, leading to the following representation:

$$(15) \quad [{}_{\text{NegP}} \text{Neg}_{[+\text{Past}]} [{}_{\text{TP}} \text{T}_{[+\text{Past}]/\phi} [{}_{\text{uTC}}] [{}_{\text{VP}} \text{Subj } V_{\text{ROOT}\dots}]]]$$

Notice, however, that the representation in (15) is problematic: It predicts that [+Past] would still appear on T (hence on the verb) as well as on Neg, which is false, as indicated by the ungrammaticality of the sentences in (16) below:

- (16) a. \*lam qraʔa Zayd-un ʔal-kitaab-a  
 Neg read 3sgmas (Past) Zayd-NOM the-book-ACC  
 “Zayd did not read the book.”
- b. \*lan sa-ya-qraʔ-a Zayd-un ʔal-kitaab-a  
 Neg FUT-IMPER-read 3sgmas-SUB Zayd-NOM the-book-ACC  
 “Zayd will not read the book.”

Obviously, what we need to do here is capture the standard distinction between  $X^0$ -XP relations (i.e., those holding between a head and a phrasal category) and  $X^0$ - $X^0$  relations (i.e., those holding between two heads). Remember that Agree between a head H and a substantive category XP results in feature valuation on H, where valuation is a process of feature copying, e.g., Agree between T and a DP results in copying the  $\phi$ -features of the DP onto T. Suppose, then, in order to capture the distinction between  $X^0$ -XP relations and  $X^0$ - $X^0$  relations, needed in any theory anyway, that an interface condition ensures that in induced-by-Agree  $X^0$ - $X^0$  relations the copied feature is pronounced on Probe P, but interpreted on Goal G, when G is the head of the sister of P. I will call this the *Head Agreement Condition* (HAC). The HAC will ensure that the valued feature on the Probe gets deleted, thereby allowing the derivation to converge at LF, but at the same time the (now silent) feature on the Goal remains available, so it gets interpreted at LF. Such a condition is, in essence, Hale and Keyser’s (2002) *Strict Complementation Condition* on conflation processes, and also the *Head Movement Generalization* of Pesetsky and Torrego (2001).<sup>6</sup>

<sup>5</sup> The  $\phi$ -features on T will be valued through Agree with Subj in the regular fashion. This is not shown here, though.

<sup>6</sup> If Agree is indeed involved in these cases as proposed here, then we have to assume that the difference between prototypical Agree configurations (i.e., those between a head and a substantive category) and the head-head configurations discussed in this paper, is probably locality, or anti-locality for that matter. Agreeing with the head of your sister is pretty much like Agreeing with your sister, and perhaps there is an anti-locality effect prohibiting the same feature from appearing multiply within too local a domain, as Grohmann (2000, 2003) suggests. Now, when the sisterhood relation is not involved, then both elements in the Agree relation can, or perhaps must, spell-out the relevant features independently, e.g., T spells out the  $\phi$ -features that are also spelled out on the agreeing DP. I believe that this is the intuition behind Hale and Keyser’s (2002) analysis for conflation. One may also speculate that incorporation in the sense of Baker (1988) is of that nature. As far as I know, we do not see incorporation of an object coupled with spell-out of that object separately inside the same VP (e.g., no instances of “John meat-ate the meat”). It remains, however, to find out what relevant feature is involved in incorporation, if we want to extend the Agree-based analysis proposed here to such cases.

To give a concrete example, let's revisit the problem with the structural representation in (15), repeated below:

(17) [<sub>NegP</sub> Neg<sub>[+Past]</sub> [<sub>TP</sub> T<sub>[+Past]/ $\phi$ [uTC]</sub> [<sub>VP</sub> Subj V<sub>ROOT...</sub>]]]

Now bearing the HAC in mind, the problem with (17) disappears, since [+Past], while appearing on both Neg and T, will be pronounced only on the former, but interpreted on the latter, in compliance with the HAC, since the Goal, T, is the head of the sister of the Probe, Neg. This way we predict the ungrammaticality of sentences where both tensed Neg and tensed V co-occur.

We have now managed not only to predict that tense will appear on Neg, but also to prevent multiple tense-marking in negative sentences in SA. The rest of the derivation could be handled in the morphophonological component. For example, verb movement to T and Neg is probably driven by the affixal features of both heads, which results in the observed adjacency requirement.<sup>7</sup> Notice also that V will end up hosting the  $\phi$ -features on T, while appearing in the non-tensed imperfective form (or the HAC would be violated). Finally, as a result of Agree, the temporal case features on T are valued, which explains the presence of these formal features on verbs in such contexts.<sup>8</sup>

In sum, the Agree-based analysis proposed here accounts for the properties associated with tensed negatives in SA. First, tense appears on the negation particle as a reflex of the valuation of an uninterpretable feature on Neg. Second, the verb has to appear in the imperfective non-tensed form since Neg realizes the tense feature. Third, adjacency is accounted for in terms of morphophonological head movement that requires V to raise to T and Neg, to license their affixal features. Finally, the Agree relation leads to the valuation of the temporal case on T, resulting on what has been traditionally called mood-marking on the verb. If correct, the analysis presents further evidence that Agree is a mechanism for formal feature licensing, not only between functional heads and substantive categories, but also between different heads in the functional domain. In the next section, I show that the facts discussed earlier regarding the morphosyntax of imperatives can be dealt with in the same fashion.

#### 4. Deriving the morphosyntax of SA imperatives in an Agree-based approach

Recall that the empirical facts regarding the morphosyntax of imperatives that we are trying to account for are (a) the absence of person agreement in positive imperatives (though not in negative imperatives), and (b) the appearance of the jussive marker on the imperative verb. In this section, I would like to argue that the absence of person agreement from positive imperative forms is due to imperative C absorbing that person feature under Agree with T. Given this assumption, consider the structural representation of positive imperatives shown in (18), ignoring irrelevant details:

(18) [<sub>CP</sub> C<sub>IMP[uPERSON]</sub> [<sub>TP</sub> T<sub>[PERSON]/[NUMBER]/[GENDER]/[uTC]</sub> [<sub>VP</sub> Subj V<sub>ROOT...</sub>]]]

The CP is headed by an imperative C<sub>IMP</sub>, familiar from work on imperatives (see Lasnik 1981; Beukma and Coopmans 1989; Pollock 1989, Benmamoun 2000; among many others). Assume that C<sub>IMP</sub> has an

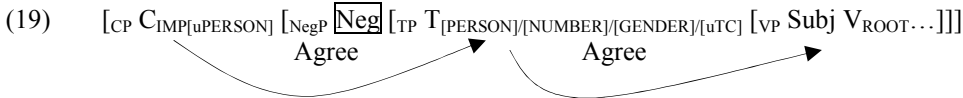
<sup>7</sup> There is evidence that Neg by itself is not an affix in the language, since the negation particle *maa* may occur independently. We may assume here that it is the tense feature on Neg that actually renders it affixal, hence requiring it to be part of the verbal complex.

<sup>8</sup> A reviewer raises a question regarding other negation particles in SA that do not behave in the same way as *laa*. For space considerations, I do not discuss here the cases of the two negation particles *laysa*, which inflects for  $\phi$ -agreement, and *maa*, which does not inflect for either tense or agreement. In Soltan (2007, 2008), I show that the same analysis discussed here extends to these two negation particles, where *laysa* is a  $\phi$ -active Neg, whereas *maa* is the spell-out of a Neg that is inert to the Agree system. Another question raised by the reviewer has to do with negation in modern Arabic dialects. Since the Arabic dialects I know of generally use the non-inflecting *maa* morpheme (typically occurring in a bipartite negation structure with the suffix *-s*), I assume that Neg in such dialects does not carry any formal features, and hence does not take part in the Agree system. For an elaborate discussion of negation in Arabic dialects, see Benmamoun 2000, and references cited there.



uninterpretable [uPerson] feature.<sup>9</sup> T Agrees with Subj in the usual fashion, licensing the  $\phi$ -features on T. Now, C Agrees with T in [Person], thereby licensing C's [Person] feature as well as the temporal case on T. Since T is the head of the sister of C, then, by the HAC, the [Person] feature has to be realized on the probing head, C in this case, which explains its absence on the verb. Meanwhile, the licensing of the temporal case on T will have the morphological reflex of a jussive marker on the imperative verb.

By contrast, the obligatory presence of person agreement in negative imperatives is due to the presence of the Neg head between C and T. While Agree between C and T in [Person] can still take place (Neg being a non-intervener for lacking the relevant feature),<sup>10</sup> the HAC will force [Person] to be realized on T, since T, due to the presence of Neg in the structure, is now not the head of the sister of C. A structural representation with Agree relations is shown in (19):



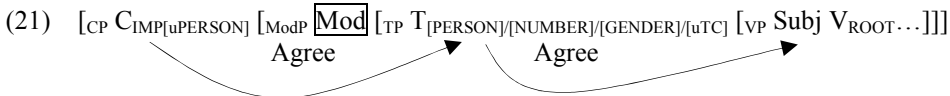
Given the structural representation in (19), we predict that [Person] has to be realized on T, as desired. Notice also that the Agree relation results in licensing the temporal case feature of T, which has the morphological reflex of jussive mood-marking in this case as well.

On the other hand, the analysis provided above can now be extended to the second type of positive imperatives in SA, *li*-imperatives, as illustrated earlier in (6), repeated below for convenience:

(20)

|            |                 |
|------------|-----------------|
| 2sgmas     | li-ta-ktub-Ø    |
| 2sgfem     | li-ta-ktub-ii-Ø |
| 2dumas/fem | li-ta-ktub-aa-Ø |
| 2plmas     | li-ta-ktub-uu-Ø |
| 2plfem     | li-ta-ktub-na   |
|            | “Write.”        |

If *li-* is a modality head of some sort, then it will have the same effect as Neg in negative imperatives, blocking the [Person] feature from appearing on C, hence its obligatory appearance on the verb:



Notice, however, that the Agree relation still takes place, thereby explaining the jussive marker on the verb in this kind of imperative as well.

To sum up, the Agree-based analysis of functional head movement presented in this paper can account for the morphosyntactic properties of both positive and negative imperatives. Positive imperative verbs appear without the person agreement prefix because imperative C realizes the [Person] feature of T under Agree and subject to the HAC. By contrast, the appearance of person agreement in negative and *li*-imperatives is due to the presence of an intervening head that breaks the sisterhood relation between imperative C and T, hence forcing [Person] to appear on T (and “null” C for that matter). If correct, this analysis provides further support for the assumption that Agree is a mechanism for formal feature licensing holding not only between heads and substantive categories, but also between functional heads and other functional heads in the structure.

<sup>9</sup> Whether this can be tied to the fact that imperative structures are for the most part second person in nature is unclear. Perhaps the inherent properties of imperative C is compatible with it being the locus of the formal feature of (second) person, but this is at best a mere speculation.

<sup>10</sup> A question that might arise here is why Neg does not cause a defective intervention effect blocking Agree between C and T. I'm assuming here that Neg does not have a [Person] feature, hence is not a potential Goal.

## 5. Cross-linguistic implications for imperatives and negation

The incompatibility between negation and imperative forms illustrated with Arabic data in this paper has in fact been noted in several languages in the literature on the syntax of imperatives (see, for example, Joseph and Philippaki Warbuton 1987 for Modern Greek; Zanuttini 1991, 1994, 1997 for Romance; Rivero 1994a, 1994b, and Rivero and Terzi 1995, for Slavic/Balkan). To illustrate, consider the following examples from Modern Greek and Spanish (data from Han 1999), where negative imperatives are ungrammatical, with prohibition expressed instead through the use of so-called “suppletive” imperatives where the verb surfaces in the subjunctive or infinitival form:

- (22) a. \*Mi grapes to! Modern Greek  
 neg write-2sg.IMP it  
 “Don’t write it!”  
 b. (Na) mi to grapsis!  
 NA neg it write-2sg.Subj  
 “Don’t write it!”
- (23) a. \*No lee! Spanish  
 neg read-2sg.IMP  
 “Don’t read!”  
 b. No leas!  
 neg read-2sg.Subj  
 “Don’t read!”  
 c. No leer!  
 neg read-Inf  
 “Don’t read!”

By contrast, several other languages do allow negation of imperative forms of the verb. Consider the following data from French, German, Bulgarian and Serbo-Croatian:

- (24) a. Chantez! French  
 Sing.2pl.IMP  
 “Sing!”  
 b. Ne Chantez pas!  
 Neg Sing.2pl.IMP Neg  
 ‘Don’t sing!’
- (25) a. Schreibt! German  
 write.2pl.IMP  
 “Write!”  
 b. Schreibt! nicht!  
 write.2pl.IMP Neg  
 “Don’t write!”
- (26) a. Četi! Bulgarian  
 read-2sg.IMP  
 “Read!”  
 b. Ne četi!  
 neg read-2sg.IMP  
 “Don’t read!”
- (27) a. Čitaj! Serbo-Croatian  
 read-2sg.IMP  
 “Read!”  
 b. Ne čitaj!  
 neg read-2sg.IMP  
 “Don’t read!”

Obviously, the main question is what kind of parameterization is responsible for this cross-linguistic divergence in the compatibility between imperatives and negation. In what follows I provide an account for this case of cross-linguistic variation.

In the discussion of SA negation structures early in this paper, I assumed that Neg is higher than T. In many treatments of negation in other languages, however, Neg is taken to mark the boundary of VP (or  $v^*P$ ), hence is located lower than TP. Significantly, in these languages, unlike in SA, the negation morpheme is actually postverbal, not preverbal, as the case is in Icelandic, for instance, as shown in (28):

- (28) Nemandinn las ekki bókina  
 student-the read not book-the  
 “The student didn’t read the book.”

I will assume therefore that the position of negation is parametric (cf. Laka 1990; Zanuttini 1997), induced probably by the selectional property of the Neg head in the language: selecting either VP or TP. If this is the case, then we have a straightforward explanation for why languages like German and French allow negative imperatives: the Neg head is low enough to allow a syntactic relationship between C and T to take place. Now, whether imperative C in these languages also realizes a [Person] feature or some other feature is not really crucial. It is hard to find morphological evidence from the conjugation paradigm of verbs in these languages that imperative forms are actually lacking person agreement. What is crucial, however, is that imperative C has a specific feature that neither declarative nor interrogative C has, and that this feature is licensed through Agree with T. In positive imperatives this is straightforward: C and T can Agree with each other directly. Importantly, though, unlike in SA, in negative imperatives the same configuration holds, since Neg is below T rather than above it, thereby allowing the same C-T feature licensing to take place.

The problem that immediately arises with this analysis is that both Bulgarian and Serbo-Croatian have preverbal negation, but both still allow negative imperatives (cf. the data in (26-27)). Why is it that Neg in these languages does not give rise to similar effects between C and T, then? Rivero and Terzi (1995) argue that the IMP feature in imperative structures is actually located in T, rather than C, in Slavic languages. In support of this view, they point out that imperative verbs in these two languages cannot raise as high as C, since they may follow clitics in those structures where the clitic is not in initial position, as illustrated in (29) below:

- (29) a. Knjige im čitajte! Serbo-Croatian  
 books to-them read-2pl.IMP  
 (Rivero and Terzi 1995)  
 “Read books to them!”  
 b. Ela i mi kaži! Bulgarian  
 come-2sg.IMP and me tell-2sg.IMP  
 (Hauge 1976; cf. Rivero 1994)  
 “Come and tell me!”

If clitics are adjoined to some functional head above T, as suggested in Kayne (1994) for example, then it cannot be that the imperative verb in (29) is located in C. It must be then that in these structures the verb does not raise higher than T. If this analysis is correct, then the parametric option characterizing these two Slavic languages has to do with the locus of the IMP feature. But notice that if IMP is actually located in T, then it does not matter now if Neg is higher or lower than T, since C becomes irrelevant for the syntax of imperatives, and the presence of Neg will not disrupt any C-T feature licensing since such licensing is simply not needed in these languages.

This analysis cannot be the whole story, however. Both Bulgarian and Serbo-Croatian do have imperative structures where the clitic appears postverbally:

- (30) a. Četi! ja! Bulgarian  
 read-2sg.IMP it  
 “Read it!”

- |    |              |     |                |
|----|--------------|-----|----------------|
| b. | Čitaj!       | je! | Serbo-Croatian |
|    | read-2sg.IMP | it  |                |
|    | “Read it!”   |     |                |

The postverbal position of the clitic in the sentences in (30) seems to contradict our conclusion above that V never raises higher than T in imperative structures in these two languages, since it seems that the verb is actually located in a position higher than the clitic. In her discussion of this problem, Han (1999) cites Embick and Izvorski’s analysis of Slavic examples with auxiliaries like the one in (31) below:

- |      |                            |     |        |                            |
|------|----------------------------|-----|--------|----------------------------|
| (31) | Napisal                    | som | list   | Slovak                     |
|      | written                    | am  | letter | (Embick and Izvorski 1997) |
|      | “I have written a letter.” |     |        |                            |

To account for the fact that the auxiliary in these constructions has to follow the main verb, Embick and Izvorski argue, following Marantz (1989), that this is the result of a postsyntactic morphological merger operation whereby the positions of the lexical verb and the auxiliary clitic are switched to avoid violation of the ban on clitic-initial structures in Slavic languages. If their analysis is correct, then the data in (30) are still compatible with an analysis whereby the imperative verb does not raise higher than T, with the surface V-Clitic order being the result of a postsyntactic operation.

To summarize, in this section I discussed some cross-linguistic implications for the analysis of negative imperatives that I offered for SA. There are a number of languages where negative imperatives do not occur. Rather, the verb will appear in some other suppletive form. I argued that this is precisely for the same reason person agreement in SA is forced to appear on the negative imperative verb: C can Agree with T, but cannot realize/absorb its [Person] feature. In languages without negative imperatives, we can extend the same analysis arguing that Neg disrupts the appearance of whatever formal feature imperative C has, therefore forcing the verb to appear in a non-imperative form, e.g., subjunctive or infinitive (on par with the imperfective in SA). On the other hand, languages that do allow negative imperatives are of two types: Those that have postverbal negation, in which Neg is never in a position to disrupt the realization of the relevant feature on C (French, German); and those that have the relevant imperative feature located in T rather than C (Slavic), thereby rendering the C-T feature licensing process vacuous.

## 6. Conclusions

In this paper I have provided an analysis for the distinctive morphosyntactic features of imperatives in SA. In particular, I argued that positive imperatives appear without person agreement due to an Agree relation between imperative C and T that results in [Person] getting realized on (null) C. By contrast, in both negative imperatives and *li*-imperatives, the presence of an intervening head between imperative C and T, while not blocking Agree from taking place, still breaks the sisterhood relation between C and T required by the Head Agreement Condition for feature displacement to take place. As a result, in these cases, the imperative verb appears with person agreement. In all of these cases, however, the Agree relation between C and T will have a morphological reflex of jussive marking on the verb. I explored then the cross-linguistic implications of the given analysis for the problem of (in)compatibility between imperatives and negation, arguing that languages that have preverbal negation will typically disallow negative imperatives since the presence of Neg between C and T in such languages will typically render the HAC irrelevant, hence forcing the [Person] feature (or any other feature for that matter) to appear on the verb. Languages with postverbal negation, by contrast, will always allow negative imperatives since Neg is too low to intervene in any relation between C and T in imperative structures.

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