

THE NEG ELEMENTS IN CLAUSE STRUCTURES

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This article deals with the syntax of sentential negative elements in a number of languages. We start by investigating three kinds of sentential negative elements in Arabic. We argue that these elements occupy different positions in the hierarchic order of clause structure. Negative elements occur in positions higher than TNS, or between TNS and AGRs, or project internal to the Predicate Phrase. Analysis of Arabic negative clauses reveals that although NEG elements project as phrasal heads, they are closely associated with TNS and AGRs. We propose a hypothesis of Adjunction movement to TNS/ NEG motivated by morphological requirement of the elements involved. Movements, which should apply before Spell-out, are necessary for Checking theory. The same procedure has been applied to negative clauses in English, French, Italian, etc. We claim that sentential NEG elements share in their essence certain simple properties at least in the languages investigated here.

(I) ARABIC NEGATIVE ELEMENTS

This article investigates the negative elements (henceforth NEG), in clause structures and their different positions in various clauses in a number of languages. Our focus will be on the Arabic NEG elements, and the light they shed on clause structure, and the arrangement of functional categories.¹

There are three types of NEG element in Arabic negative clause:²

(A) *ma*:

The NEG particle *ma*, which occurs immediately before the verb, is mainly used to negate clauses with finite (past and present) verb forms. Consider the following examples:

(1) *Affirmative Clauses:*

- (a) (Aliyy-un) *qra'a* (Aliyy-un) al-dars-a.
 Ali-Nom read-per,3sm Ali-Nom the-lesson-obj
 "Ali read the lesson"
- (b) (Hind-un) *qra'a-t* (Hind-un) al-dars-a.
 Hind-Nom read-per,3sf Hind-Nom the-lesson-obj
 "Hind read the lesson"
- (c) (Aliyy-un) *ya-qra'* (Aliyy-un) al-dars-a.
 Ali-Nom 3sm-read-imp Ali-Nom the-lesson-obj
 "Ali reads the lesson"
- (d) (Hind-un) *ta-qra'* (Hind-un) al-dars-a.
 Hind-Nom 3sf-read-imp Hind-Nom the-lesson-obj
 "Hind reads the lesson"

(2) *Negative Clauses*

- (a) (Aliyy-un) *ma qra'a* (Aliyy-un) al-dars-a.
 Ali-Nom NEG read-per,3sm Ali-Nom the-lesson-obj
 "Ali didn't read the lesson"
- (b) (Hind-un) *ma qra'a-t* (Hind-un) al-dars-a.
 Hind-Nom NEG read-per,3sf Hind-Nom the-lesson-obj
 "Hind didn't read the lesson"
- (c) (Aliyy-un) *ma ya-qra'-u* (Ali-un) al-dars-a.
 Ali-Nom NEG 3sm-read-imp Ali-Nom the-lesson-obj
 "Ali doesn't read the lesson"
- (d) (Hind-un) *ma ta-qra'-u* (Hind-un) al-dars-a.
 Hind-Nom NEG 3sf-read-imp Hind-Nom the-lesson-obj
 "Hind doesn't read the lesson"

Notice that the subject having a nominative case marker may appear immediately before or after the verb (cf.: 1a-d).³ However, in the negative clauses, the subject cannot separate the NEG particle *ma* from the verb (cf.: 2a-d). When we attempt to insert any element between the NEG element *ma* and the verb such as the subject or an adverb, for example,

it will always result in ungrammatical construction. The following sentences are ungrammatical with an element inserted between the negative *ma* and the verb:

(3) (a) *ma* *Aliyy-un *qra'a* (Aliyy-un) al-dars-a.
 NEG Ali-Nom read-per,3sm Ali-Nom the-lesson-obj
 "Ali didn't read the lesson carefully"

(b) *ma* *Hind-un *qra'a-t* (Hind-un) al-dars-a.
 NEG Hind-Nom read-per,3sf Hind-Nom the-lesson-obj
 "H. didn't read the lesson carefully"

"

(c) *ma* *bihtimam *qra'a* bihtimaamin.
 NEG carefully read-per,3sm carefully
 "(He) didn't read carefully"

(d) *ma* *bihtimaamin *qra'a-t* bihtimaamin.
 NEG carefully read-per,3sf carefully
 "(She) didn't read carefully"

Notice that both the subject and the adverb *bihtimaamin* are ungrammatical between the *ma* and the verb, but grammatical when they occur in a post-verbal position.

(B) (i) *lam*, (ii) *lan* and (iii) *la*:

These NEG elements encode the TNS-feature. *lam* is used to negate clauses with finite (past) tense. *lan* is used to negate clauses with finite (future) tense.⁴ *la* is used to negate clauses with finite (present) tense. Now, 4 and 5 below illustrate these elements in actual sentences:

(4) *lam*

(a) (Aliyy-un) *kataba* (Aliyy-un) al-dars-a.
 (Ali-Nom) wrote (Ali-Nom) the-lesson-Obj
 "Ali wrote the lesson"

(b) (Aliyy-un) *lam ya-ktub* (Aliyy-un) al-dars-a.
 (Ali-Nom) NEG -past 3sm-write (Ali-Nom) the-lesson-Obj
 "Ali didn't write the lesson"

(5) *lan / la*

- (a) (Aliyy-un) *lan* *ya-ktub* (Aliyy-un) al-dars-a.
 (Ali-Nom) NEG-fut 3sm-write (Ali-Nom) the-lesson-Obj
 "Ali will not write the lesson"
- (b) (Ali-un) *la* *ya-ktub* (Ali-un) al-dars-a ala'n.
 (Ali-Nom) NEG 3sm-write (Ali-Nom) the-lesson-Obj now
 "Ali is not writing the lesson (now)"

Notice that the subject may appear initially or post-verbally; but it cannot intervene between the NEG element and the verb, because this always renders the clause ungrammatical. Consider the following structure: (Irrelevant details are omitted)

(6) ... *lam/lan/la* *SUB/ *ADV *ya-ktub*...

Notice also that the verb, immediately following the NEG element, always appears in the un-tensed forms (jussive/ subjunctive, etc.). Tense is deducible from the NEG elements as they are semantically associated with past tense *lam*, future tense *lan* and present tense *la*. These elements serve as tense markers, beside their function as negative markers. With the exception of *la*, which may be used in nominal sentences, these elements are commonly used to negate clauses with overtly finite tense; i.e. gerundive, participial and verbless clauses may not be negated via these particles.

(C) *laysa*:

This element is used to negate sentences that do not exhibit an overt main verb. They are known in Arabic as "Nominal Verbless Sentences". *Laysa*, is most frequently used in clauses with originally nominal or adjectival predicates, and with 'nominalized' predicates, i.e.; predicates derived from verbal roots: such as participles, gerunds etc. *Laysa* can be glossed as (*not-be*). Consider the following examples:

(7) *Laysa* (not-be):

- (a) (*laysa*) Mohammad-un (*laysa*) bariTaaniyy-an.
 NEG -is (3sm) Mohammad-Nom NEG -is (3sm) British-sm-Obj
 "Mohammad is not British"

- (b) (*laysa-t*) Hind-un (*laysa-t*) bariTaaniyya-t-an.
 NEG -is (3sf) Hind-Nom NEG -is (3sf) British-sf-Obj.
 “Hind is not British”

Notice that *laysa* may appear between the subject and the predicate or initially like ordinary Arabic verbs. *Laysa* is traditionally recognized as behaving like genuine verbs in that its predicate appears with the objective case marker; i.e., similar to genuine objects in transitive sentences.

(II) A GENERAL OVERVIEW OF ARABIC CLAUSE STRUCTURE:

In this section, we are going to explore different methods to figure out a clause structure that accommodates the above data. Various NEG elements appear in different positions in the Arabic clause. NEG elements, as functional categories projecting as heads of their own phrases, seem to have occupied different positions in the clause structure (see footnote 14 below). The hierarchic order of functional categories in clause structure is not universally fixed but rather parameterized as suggested in Ouhalla (1991) among others. Here, I adopt some theoretical proposals concerning properties of functional categories, like c-selection, m-selection and grammatical-features; and the conclusions deduced from the interactions between these properties that determine the canonical order of functional and predicate phrases in clause structure. Some of these matters are proposed and well defended in Ouhalla (1991).

According to Ouhalla (ibid.), the selectional properties, and features of TNS and AGR elements are not the same in all languages but parameterize. That is to say, in some languages TP is higher than AGRsP in the hierarchy of clause structure whereas in other languages the opposite is true. He formulates what he calls the AGR/TNS Parameters:

(8) The AGR/TNS Parameter:

- (a) TNS c-selects AGR.
- (b) AGR c-selects TNS. (ibid. 113)

(9) The TNS Parameter:

- (a) TNS is bound.
- (b) TNS is free. (ibid. 149)

I assume that Ouhalla's suggestion that in Arabic Tense Phrase (TP) dominates AGRs Phrase (AGRsP) is generally correct.⁵ He classified NEG elements as belonging to the class of functional categories, and argues

that properties of NEG parameterize cross-linguistically.⁶ He formulates what he calls the NEG Parameters:

(10) The NEG Parameter I:

- (a) NEG c-selects VP.
- (b) NEG c-selects AGR/TNS. (Ibid. 138)

(11) The NEG Parameter II:

- (a) NEG is bound.
- (b) NEG is free. (Ibid. 141)

Based on data from various linguistic analyses (e.g. Benmamoun (1989), Ouhalla (ibid. p.63) concludes that Arabic NEG must occupy an intermediate position between TNS and AGR.⁷ The overall order of functional elements in Arabic clause structure may look like this: [TP-NEG-AGR].

Ouhalla (ibid.) analyzes the status of aspectual elements in a number of languages, concluding that they belong to the class of functional categories. He formulated the ASP Parameter as follows:

(12) The ASP Parameter:

- (a) ASP is verbal (i.e.[+V])
- (b) ASP is Nominal (i.e.[+N])

He places verbal ASP between TNS and NEG whereas nominal ASP between NEG and VP in languages where AGR is higher than TNS (Ouhalla, 1991:76-80).

In this analysis, we would like to incorporate later developments within linguistic theory that we feel relevant to our topic here; namely, we want to assume the Minimalist Program as described in Chomsky (1995) and later modifications. That means, the content of parameters such as those suggested by Ouhalla (1991) can be *generated* naturally from the lexicon; i.e. from the properties and features associated with each specific element in the lexicon. However, we still want to retain the idea that the arrangement of elements (bound/ free) on the level of (PF) constitutes a satisfactory clue for the canonical hierarchic order of functional categories in clause structures in various languages. This idea

is compatible with the Mirror Principle as initially proposed in Baker (1988).

Let us first explain the hypothesis that the Arabic NEG elements are displayed at different places on clause structure. For example, *ma* precedes finite verbs, so it cannot be in TNS because tensed verbs occupy that position as shown in 2 (a-d) above. Other NEG elements like *lam*, *lan* and *la* clearly end up in TNS because they encode tense features but no AGR features, as shown in 4 and 5 above.⁸ The main verb accompanying NEG elements is always in the un-tensed forms, i.e. the imperfective verb form with jussive/ subjunctive endings. But the main verb displays agreement markers, which can be taken as a clue that the verb moves to AGRs but does not reach TNS node because it is already occupied by (tensed) NEG. This vindicates Ouhalla's suggestion that Arabic is a TNS-initial language; i.e., TNS is higher than AGRs in Arabic clausal structure. In these clauses, the verb is not in TNS-node because TNS is occupied by the NEG element *lam/lan/la*; and the main verb displays AGRs morphology. Therefore, a possible assumption is that the verb must be in AGRs-node, which means that, if this analysis is on the right track, TNSP dominates AGRsP in Arabic clause structure.

In nominal (verbless) sentences yet another type of NEG element is used, as shown in 7 above. In 7, the NEG element *laysa* is closely associated with 'a nominal type' of predicate. It moves to upper nodes and occupies pre-subject position. This happens only if it moves up to AGRs and TNS nodes before Spell-out. In this it coincides with finite main verbs, but does not seem to have any thematic assigning property. *laysa* encodes a verbal feature in addition to its function as a NEG element. The subject of *laysa* clauses displays nominal case ending and the predicate displays objective case ending.

NEG elements select different "categories"; *ma*, for instance, selects a finite verb, as it does not encode any TNS feature. The three elements, *lam*, *lan* and *la* select non-finite verb forms, as they themselves encode the finite TNS feature. *Laysa* selects nominal (verbless) clauses.

We conclude that although the three types of elements share the feature NEG, they have different selectional properties and therefore occupy different positions at clause structure prior to Spell-out. Because these elements, excluding *ma*, encode features other than the NEG-feature, they incidentally end up in different positions after Spell-out. In what follows, we will suggest the following analyses describing Arabic negative sentences: (irrelevant details are omitted)

(13) Arabic canonical clause structure with NEG elements prior to Spell-out:
[CP [(*ma*)[TP [(*lam/lan/la*)[AGRsP [ASPP [AGRoP [(*laysa*) PREDP]]]]]]]]

(14) Clause Structure before Spell-out with the NEG element of Type (A):
[CP [(*ma*)[TP[[AGRsP[ASPP [AGRoP[*Hind-un* [*gra'a-t* [*aldarsa*]]]]]]]]

(15) Clause Structure after Spell-out with the NEG element of Type (A):
[CP[(*Hind-un*)(*ma*)[Spec-T[*gra'a-t*(*Hind-un*)[AGRs [*aldarsa*][AGRo[t_i[v-t_i]]...]

Here, the subject moves from spec-v to either spec-AGRs or spec-NEG, through the specifier positions of the intermediate phrases. An important observation here is that the subject does not appear in spec-TNS (italicized in 15); otherwise, the sentence will become ungrammatical as shown in 3 above. We shall explain later why a lexical subject (or any other overt element) does not appear between NEG and the main verb in negated clauses.

(16) Clause Structure before Spell-out with the NEG element of Type (B):
(irrelevant details are omitted)
[CP[TP[*lam/lan/la* [AGRsP [ASPP [AGRoP [*Hind-un* [*ta-ktub* [*aldarsa*]]]]]]]]

(17) Clause Structure after Spell-out with the NEG element of Type (B):
(irrelevant details are omitted)
[CP[(*Aliyy-un*)[*lam/lan/la*][NEG-t[Spec-AGRsya-*ktub*[(*Aliyy-un*)ASP[*aldarsa*AGRo[v-t]]...]

Here, NEG-elements occupy the TNS-node as they encode tense features. The main verb can move up to AGRs-node, as it always displays agreement morphology. The verb remains in the un-tensed forms (jussive/subjunctive forms). Again, we face the same observation; the subject (or any other element) does not appear between the NEG element and the main verb without rendering the sentence ungrammatical (cf. 6). Now, let us see how sentences like those in 7 above can be analysed.

(18) Clause Structure before Spell-out with the NEG element of Type (C):
[[TP [AGRsP [ASPP [[AGRoP [vP(*laysa*) [PredP *Mohammad-un* [*bariTaaniyy-an*]]]]]]...]

Notice here that the PredP (Predicate Phrase) contains its subject *Mohammad-un* in its spec-position. The predicate head projects from the lexicon as head of the phrase. The NEG element *laysa*, I assume, is to be a sort of NEG light verb in the sense of Chomsky (1995: Ch.4). Intuitively speaking, it has a NEG-feature, so it has to move up to AGRs and TNS. The evidence for *laysa* movement to AGRs comes from the fact that it displays subject agreement morphology. And, the movement to the TNS-node comes from the fact that it can either precede or follow the subject like any other verb. It has a defective verbal form, as it has no past or future form."It has no inherent association with present tense. The following sentence is equivalent to 7 (a) and (b) above, excluding the NEG meaning:

(19) (0 / =be):

(a) Mohammad-un bariTaaniyy-un.
 Mohammad-Nom British-sm-Nom.
 "Mohammad is British"

(b) Hind-un bariTaaniyya-t-un.
 Hind-Nom British-sf-Nom.
 "Hind is British"

One other observation, however, is that the predicate (which presumably lacks verbal feature) displays nominative case morphology. This fact may be taken as evidence that *laysa* must have triggered objective case assigned to the predicate (cf. 7a and b). If this is correct, *laysa* matches transitive verbs in Arabic; and it is different from the standard verb (*to be*) in English. Recall the dispute over "*It's I*" and "*It's me*". But Arabic *laysa* is probably functioning similar to the latter with lexical predicates and functioning similar to the former with pronominal predicates. Consider the following:

(20) ?nta las-ta *-bu / huwa/ moGallim-an/*un
 You-m,s not-be-2 *him / he/ teacher-Obj / *Nom
 "You are not him/ a teacher"

Notice that the objective pronominal clitic *-bu is ungrammatical, but the nominative equivalent *huwa* is. However the lexical predicate is grammatical when it displays objective case marker -an but ungrammatical when it displays the nominative case -un. Notice also that the latter

becomes grammatical if we omit *laysa* from the sentence and it becomes the grammatical affirmative sentence:

- (21) *?nta moGallim-un*
 You-m,s teacher-Nom
 "You are a teacher"

A possibility we might think of is that *laysa* has nothing to do with the objective case displayed on the predicate. Predicates themselves may have different positions in the negative and affirmative sentences after Spell-out. *laysa* might block predicate and obstruct copying the case feature of the subject in negative clauses, but not other features, i.e. number and gender. In other words, a predicate, either nominal or pronominal, does not receive/ check case but copy the features of the subject in the so-called nominal clauses in Arabic. When this type of sentences are negated by using *laysa*, which we still assume a defective light verb, this verb stops lexical (but not pronominal) predicates from moving into a position where they can copy the case feature of the subject. Instead, the predicate moves into a position where it can manifest objective case. In both cases the predicate agrees with the subject in number and gender. Leaving these rather problematic issues of nominal clauses aside, we can safely conclude that *laysa* raises to AGRs and TNS prior to Spell-out showing a structure like the following:

- (22) Clause structure after Spell-out with the NEG element of type (C):
 [CP [T (*Mohammad-un*) (*laysa*) [AGRsP (*Mohammad-un*) [vP [*bariTaaniyy-an*]]]

There seems to be no potential problem as far as the subject is concerned. The subject can check its case and AGR features in either spec-TNS or spec-AGRs. The NEG element here is a verb-like word, or it can be assumed as a light verb following Chomsky (1995). I will leave this discussion there and turn to previous constructions.

We have not dealt with the checking position(s) of the subject/object in clauses with *ma*, *lam/lan/la* NEG elements. Let us first consider how the object checks its features. The object gets its AGR and Case features checked in spec-AGRo and here it seems that the object *aldarsa* appears in spec-AGRo as required by the standard analysis of the Checking theory. See structures 15 and 17 above.

In fact, we face what seems to be a difficult situation when we try to explain how the subject satisfies the Checking theory. To put it another

way, in 15 above the subject can appear in either spec-NEG or spec-AGRs, but never in spec-TNS; in 17 the subject may appear either in spec-TNS or spec-ASP, but never in spec-AGRs.

Now, firstly how can mechanisms enabling the subject to satisfy the Checking theory be explained in structures like these? Secondly, what are the factors that prohibit the subject from appearing in spec-TNS in 15 and spec-AGRs in 17? Let us approach the first question and discuss the second question afterwards. It has been widely accepted within the tradition of linguistic research that the subject is licensed in pre- as well as post-verbal positions in VSO languages, allowing an alternative SVO word order. Some researchers attribute this property in these languages to the directionality of Case assignment (Fassi-Fehri (1987), among others); others associate rich case morphology with SVO/VSO or even free word order. For example, Ouhalla (1991) proposes the idea that the parameterised order of functional categories like TNS and AGRs determines the dominant word order in a language, and hence the subject is licensed in either spec-TNS/AGRs. TNS and AGRs elements may have either strong/weak features and appear in the same node at SS.

(III) TNS AND AGR IN ARABIC CLAUSES

The traditional INFL node has been split up into a number of features; each is realised as a separate category on its own right (Chomsky, 1989; Pollock, 1989, and many others). Under the split-INFL hypothesis, TNS and AGR are functional categories. Adopting a more recent view, AGRs and TNS nodes do not inherently contain any phi-features or affixes. According to Jonas (1996) for example, the head of AGRs has features like D-feature/ N-feature/ Nominal-feature, which can be weak or strong, that are used to check DP/NP in its specifier position. And it has a V-feature which if strong requires a lexical verb movement. The head of TNS has V-feature which if strong triggers verb movement, and has Case-feature and D-feature/ N-feature/ Nominal-feature which can be weak or strong. Strong features always force EPP (the Extended Projection Principle) effects and checking the Case of DP in its specifier position. Based on data from Icelandic, Jonas (1996) claims that Case and D-features checking occur in separate positions prior to Spell-out. Her argument rests on the fact that the subject in Icelandic clauses can surface in different positions yielding a surface word order like this:

(23) Expletive Subject-Verb-Lexical Subject-Object-Adverb/NEG...

In the analysis she proposes for Icelandic clauses, the subject splits into two parts: a bare D category represented by an expletive element, and an NP category represented by lexical element. The latter moves from its VP internal position into spec-TNS to check Case feature and N-feature against the features of the head of TNS. The expletive element is inserted in spec-AGRs to satisfy the EPP effect triggered by a strong D-feature of the head of AGRs. Both heads, AGRs and TNS have strong EPP-features. These features of TNS and AGRs force subject movement to spec-TNS and an expletive element in spec-AGRs. In addition, these functional heads have strong V-features that force verb movement from its base position in VP to TNS and AGRs.

We may assume something like this for Arabic clause structure with some modification demanded by the differences between Arabic and Icelandic, due to language-specific properties. In order to incorporate NEG phrases, we construct a clause structure for Arabic in which suggestions proposed by Ouhalla and Jonas are integrated, Ouhalla (1991) Jonas (1996).

Firstly, we assume Ouhalla's suggestion, that Arabic is a TNS-initial language, and AGRs follows TNS in the clause structure. Therefore, the first step is that TNSP is higher than AGRsP in Arabic. Secondly, we assume that TNS and AGRs are functional categories encoding strong functional features required by the checking theory. Intermediate elements and phrases in the clause structure, such as ASPP and AGRoP are postulated immediately dominating VP. Within the VP, there is a vP projection for a light verb similar to what is suggested in Chomsky (1995). Some of the projections may not be of direct concern here. We will be fundamentally concerned with TNS, AGRs, V, and their interactions with the NEG elements. I assume verb movement to AGRo, and AGRs (probably through ASP); and a further verb movement from AGRs to TNS.

Assuming that the verb moves in a head-to-head manner forming a chain, the chain then will have two heads. When the verb stops at AGRs, AGRs is the head of that chain. If the verb moves further up to TNS (it must move whenever TNS encodes finite feature, except when blocked by tensed NEG), TNS is the head of the chain. Assuming a chain-system, the argument (subject or object) can check its features (Case/ AGR features ... etc.) at the relevant specifier positions. The subject can only check its features at either the specifier of AGRs or TNS. Because these are the positions that encode the EPP features forcing the subject (or the object in passives) to move to check its features at spec-AGRs and/or spec-TNS depending on whether the TNS encodes finite/ non-finite TNS-feature.¹⁰ Consider the following structures: (Irrelevant details are omitted)

(24) TNS is finite and the subject is in spec-AGRs:

[...[Spec-TNS [V+AGRs+TNS [spec-AGRs the subject [V +AGRs t....]]...]

In 24, the head of the chain [V+AGRs+TNS-V+AGRs t] is in TNS where the verb is fully inflected with AGRs and TNS. The subject in spec-AGRs can be checked for AGR and Case features via matching the features in the head of the chain, probably through the trace. The verb in this type of clauses (when the subject follows the verb) does not display full agreement morphology; i.e. the person feature is not encoded; only the features number and gender are; see Fassi-Fehri (1987) among others. An alternative SVO word order is possible. According to Ouhalla (1991), this word order occurs in Arabic clauses when the subject raises to spec-TNS. In a structure like this, the verb displays full agreement morphology; i.e. the verb encodes the features person, number and gender (Fassi-Fehri, 1987, and Ouhalla, 1991 among many others). Consider the following structure: (Irrelevant details are omitted)

(25) TNS is finite and the subject is in spec-TNS:

[...[Spec-TNS the subject [V+AGRs+TNS [spec-AGRs Sub-t [V +AGRs trace.]]...]

Structure 25 is similar to 24 except that the subject here is in spec-TNS and the subject-verb agreement encodes the person, number, and gender features. The subject in spec-TNS can now check its EPP, AGR and Case features via matching these features with the features of the head of the chain represented by the complex [V+AGRs+TNS-V+AGRs t] in TNS.¹¹ The verb in this type of clauses (when the subject precedes the verb) displays full agreement morphology. We have seen how Arabic differs from Icelandic in that the subject cannot move to the spec of AGRs (which is in Icelandic higher than TNS) but remains in spec-TNS. An expletive element (which is a D category) is inserted instead. According to Jonas (1996), the features of the subject are checked in two different positions: a D-feature is checked in spec-AGRs and the N-feature and Case-feature are checked in spec-TNS. We can explain the full subject agreement morphology on the Arabic verb in SVO word order as a spell-out of the D-feature realised on the verb's morphology.¹² In the following section we shall illustrate how the structure outlined above applies to negative clauses.

(IV) NEG ELEMENTS IN CLAUSE STRUCTURE

(A) *ma*-CLAUSES

We have noted in 15 above that the negative particle *ma* occupies the head of NEGP dominating a finite TNSP. The finite verb raises to TNS-node fully inflected for tense and AGRs. We have claimed too that the subject, when it occurs post-verbally, may be checked in spec-AGRs, as it does not (or any other element) separate the verb from the NEG-element. We said also that the subject, when it occupies a pre-verbal position, might be checked in spec-NEG. We have left two points unexplained there. The first point is why the subject (or any other element) cannot be inserted between the NEG-element and the main verb? We can put this inquest in a different way; is the spec-position of TNSP available as a checking site or not? It is supposed to be available as a checking site for the subject. The second point is how does the subject get its features checked in spec-NEG while NEG contains no features other than NEG-feature? The two questions may be explained by the following assumption. Assume that the verb itself raises and adjoins to NEG-element; the subject then would get its features checked in spec-NEG by matching its features to the verbal complex in the NEG-node. If this hypothesis is correct, the first question has a straightforward answer. That is, the subject, when it occurs post-verbally is not in spec-AGRs but in spec-TNS. Following this line of thought, the assumed analysis to 14 above is not 15 but 26 below: (irrelevant details are omitted)

- (26) [Spec-NEG (*Hind-un*)](*ma- qra'a-t*)[Spec-T (*Hind-un*) v-t [[[AGRs [*aldarsa* [AGRo [ti [v-t [tj]...]

If this analysis is on the right track, checking the features of the subject in both positions, pre- and post-verbally can be accounted for in a natural way. In addition, we have explained the puzzle caused by the prohibition of inserting an element between the NEG-element *ma* and the verb, by postulating that the verb adjoins to *ma* in the head-node in the following manner:

- (27) Head-to-head adjunction:

...[Spec-NEG (*SUBj*) [X-0 [X-0 [NEG-*ma*] Y-0 [V *qra'at*]] [spec-TNS (*SUBj*) [V-t..

The movement of the verb into NEG is blocked when the spec-TNS is occupied by an expletive element *aHad*. In the following examples, this expletive may occur as a subject inserted in spec-TNS or as an object inserted in spec-AGRo 28(a) and (b) respectively:

- (28) (a) *ma aHad-un qara'a aldarsa.*
 NEG one-nom read the lesson
 "No one read the lesson"

- (b) *ma ra'ay-t-u aHad-an .*
 NEG saw-2sm-ind. one-obj
 "I didn't see anyone"

The expletive Determiner *aHad*, which projects optionally in Arabic, may be compared to the Icelandic expletive element in spec-AGRs described in Jonas (1996).

To summarise this section, the verb moves to AGRo, AGRs, then to TNS and to NEG as an adjunction movement, fully inflected with AGRs and TNS. The verb and NEG element do not form one word but two adjoined elements. The piece of evidence for our argument comes from sentences like (28 a) above. The subject raises from within VP into either spec-TNS in VSO word order or spec-NEG in SVO word order. There is at least one piece of evidence for our analysis here coming from the following sentences. When the subject precedes the verb, it is in spec-NEG, and the verb displays full agreement inflection (cf. 29a below). When the subject follows the verb it is in spec-TNS and the verb does not display full agreement morphology (cf. 29b below).

- (29) (a) *al-awlad-u ma ja'-uu ila almadrasati.*
 The-boys-nom NEG came-3pm to school
 "The boys did not come to school"

- (b) *ma ja' al-awlad-u ila almadrasati*
 NEG came-m The-boys-nom to school
 "The boys did not come to school"

(B) Lam/lan/la-CLAUSES

We have noted above that the negative particles *lam/lan/la* encode TNS as well as NEG features. The main verb is fully inflected for AGRs but not for TNS. Based on these facts, we assume that the NEGP must be

generated higher than AGRsP and immediately following TNSP. A negative element like *lam/lan/la* projects from the lexicon as head of the NEGP. Encoding a finite feature, they must move to TNS-node as an adjunction movement. Since the verb can only inflect for AGRs, we assume that it probably only raises to AGRs-node. As shown in the structures 6 and 17 above, the subject (or any other element) cannot be inserted between the negative particle and the main verb. In structure 17 above, we have argued that the verb stops at AGRs; and consequently, spec-AGRs is unavailable as a checking site for the subject. When the subject takes a post-verbal position, we temporarily placed it in spec-ASP (see 17). But the subject cannot check its features in spec-ASP. There are two reasons that make us believe that 17 may not be a satisfactory analysis for *lam/lan/la*-clauses. The first reason is the checking location of the subject when it occurs in a post-verbal position, i.e., in constructions with VSO word order. The second reason is, if V moves to AGRs-node and NEG-element heads NEGP, there are two spec-positions available in this structure, spec-AGRs and spec-NEG. Yet, a subject (or any other element) does not occupy these positions because it would appear between the negative particle and the main verb. Perhaps the verb is not in AGRs but is adjoined to the NEG-element in the TNS-node: a hypothesis that will solve the problem of the subject-checking requirements, enabling the subject to move to spec-AGRs, or even to spec-NEG. We can now replace the analysis in 17 with 30 below:

(30) (Irrelevant details are omitted)

[[Spec-TNS (Aliyy-un)[*lam/lan/la-ya-ktub*](Aliyy-un)[NEG-t-v-t[spec-AGRs v-t[*aldarsa*AGRo[v-t]...]]

According to this structure, the subject in both SVO and VSO word orders is within the checking domain of TNS and/or AGRs. There remains, however, a technical detail concerning the verb-movement to TNS through the trace of NEG. But this is probably not the case. Just before Spell-out, the verb fully inflected with AGRs adjoins to NEG-element and the complex moves to the TNS-node leaving only one trace. In the TNS-node, TNS will be the head X-0 category and adjoined to it is element Y-0 [Y-0 W-0] where Y-0 is the NEG-element head of NEGP and W-0 is the V+AGRs. The following structure will illustrate these operations:

(31) [Spec-TNS [TNS-0[X-0+[Y-0+[Y0]+[W-0]]] [spec-NEG [NEG-t [Y-0+W-0]...]

In this way, there will be no ECP violation, or any illegitimate movement. Movements triggered by morphological requirements, adjunction and substitution movements are required to satisfy the checking theory. In the following section, we shall test this analysis to see whether it can be extended to account for data from other languages.

(V) CROSS-LINGUISTIC ANALYSIS (BEYOND THE ARABIC DATA)

In this section, we extend the analysis developed in this study to descriptions from various languages seeking explanation for language variations in a more direct manner. We show that the analysis we are proposing here can be extended to account for many examples from different languages. First, we would like to state that negative words vary in their categorial status. For example, in languages with a bipartite negation system like French, (*ne ... pas*) only the first element (*ne*) qualifies as the head of the NEGP. The second element (*pas*) is a VP-adverb, and therefore it cannot be taken as the canonical sentential NEG category, at least in Standard French (cf. Pollock: 1989, and Zanuttini: 1989, and see footnote 18).

It is almost widely accepted that English clauses (finite and non-finite) are negated by the NEG element *not*. In some analyses, markers of sentential negation are realised as functional heads. For example, Potsman (1997) demonstrates that (*not*) is independently required to project as a head of NEGP to license VP-ellipsis in subjunctive clauses in accordance with VP-Ellipsis Licensing Condition of Bresnan (1979), (cf. Pollock, 1989, Laka, 1990, Zanuttini, 1991, and many others). In other analyses, NEG elements, like (*not*) and the French *pas* are considered as a VP-adverb, and placed in a specifier position, often to VP, (cf. Baker: 1991, Ernest, 1992, Radford, 1992, Kim and Sag, 1995). The motivation for placing NEG elements in specifier position or considering them as adverb elements is probably to use them as a symptomatic of verb movement. Pollock, for example, uses adverb positions to indicate 'short verb movement' in French non-finite clauses and English finite clauses. Jonas (1996) argues that the NEG elements *ekki* in Icelandic and *inte* in Swedish are placed in spec-VP and used them to indicate object movement out of VP in these languages. Jonas (1996) assumes, among others, that the negative elements (*ekki* and *inte*) are adjoined to VP. The element (*not*) as a functional head is thought to prevent verb raising to INFL and thus enforcing *do*-support. Ouhalla (1991) and Benmamoun (1992) among others, consider (*not*) a head of NEGP. Haegeman (1995) places (*not*) at spec-NEG with an X-zero NEG head. Here, I would like to argue that

only sentential NEG elements are to be realised as functional categories heading NEGP's, negative VP-adverbs are not.¹³ In what follows, we will consider the following NEG elements as heads of their NEGP's in the relevant languages:

(32)

- (a) English *not*.
- (b) French *ne* (but not *pas* that is VP-adverb).
- (c) Italian *non*.
- (d) Spanish *no*.
- (e) Portuguese *nao*.
- (f) Hungarian *nem*.
- (g) Chinese *bu* and *mei*.

The above words are sentential negative elements in different languages, demonstrated in 33-39 below. We will show that the analysis proposed above can be extended to explain various facts about the nature of negation. Consider the following examples:

(33) English data

- (a) John does *not* love Mary.
- (b) Mary is *not* a teacher.
- (c) *Isn't* she a teacher?
- (d) Mary has *not* arrived yet.
- (e) *Hasn't* she arrived yet?
- (f) Huda *cannot* swim.
- (g) *Can't* she swim?
- (h) They prefer *not* to see her.
- (i) She asked him *not* to smoke in her house.

Notice that the negative element (*not*), is placed in spec-VP in some theories and as an autonomous phrase placed between TP and VP in others.¹⁴

We assume here a rather different analysis in which the English NEGP may be placed between AGRsP and TNSP and CP. In other words, NEGP dominates AGRs and TNS.¹⁵ If this is the case, in examples (33) a-g, the subject is probably in spec-NEG, and the verbal elements (*does*, *is*, *has*, *can*) in 33 a, b, d, f, respectively move optionally from TNS and AGRs to adjoin NEG-head in declarative clauses before Spell-out. In interrogative clauses, the NEG-head and the Auxiliary verb move obligatorily to CP before Spell-out. There are four independent pieces of evidence for this

hypothesis; the first piece of evidence comes from contraction phenomenon. Perhaps only adjacent elements contract into each other. The NEG-*not* contracts into almost all auxiliary verbs, e.g. *can't*, *shan't*, *won't*, *isn't* ...etc.¹⁶ The second piece of evidence comes from the fact that in interrogative clauses both the auxiliary verb and the NEG-*not/n't* appear in CP, as shown in (33) c, e and g above. A third piece of evidence comes from the fact that in embedded infinitival clauses the NEG-*not* precedes the infinitival *to* particle. If we assume that the infinitival *to*, in (33) h and i, occupies a non-finite INFL, the preceding NEG-*not* must be in the head of NEGP. In other words, the following sentences would be correct (*They prefer to not see her. / *She asked him to not smoke in her house)¹⁷

A fourth piece of evidence comes from word order in negative utterances collected from child speech. For example, Bellugi (1967) demonstrates that small children (around 24 months of age) place negative elements in utterance-initial position. Deprez and Pierce (1993) have confirmed this phenomenon cross-linguistically: French and German small children tend to locate the negative element in initial position in their speech.

(34) French data (Examples from Byrne and Churchill, 1997: 430-52)

- (a) Ils *ne* parlent *pas* français. "They do not speak French"
- (b) Je *ne* viens *pas*. "I am not coming"
- (c) Il *n'est pas* venu. "He hasn't come"
- (d) Je préfère *ne pas* le voir. "I prefer not to see him"
- (e) Je suis content de *ne pas* le lui avoir dit. "I am glad not to have told him"

French has a bipartite negative system, where the two elements (*ne* ...*pas*) are used as sentential negative markers. Nevertheless, it should be mentioned here that these words could be used separately. That is, the genuine NEG-head is *ne*, and *pas* is an adverb with some kind of emphasis meaning, sometimes replaced by (*point*) or similar adverbs such as (*guère*) or (*jamais*) (Byrne and Churchill, 1997). One of the interesting developments in French negation construction is the fact that *pas* is gradually replacing *ne* in colloquial French and early child language.¹⁸

Assuming that *pas* is a VP-adverb generated in spec-VP, and *ne* as head of a NEGP, this phrase would either precede or follow AGRs&TNS. Recall that the French tensed verb can move to AGRs and TNS. This fact will probably make it difficult to assume that NEGP follows AGRs and

TNS. The difficulty comes from the fact that NEG-*ne* does not encode any AGRs/TNS features (like the Arabic *lam/lan/la/laysa*), but the main verb does. To illustrate this point further, recall that movement to an empty position is a substitution movement, whereas movement to a position with an element already there, is an adjunction movement. For instance, the movement of Arabic *lam/lan/la* to TNS is of the first kind as these elements already encode the TNS-feature. The main verb movement to NEG in the relevant Arabic examples is of the second kind, i.e. adjunction movement. Therefore, the result is that the verb does not encode TNS-features.

In French examples, the verb is fully inflected for AGRs and TNS, so we expect that the verb movement in this case is a substitution movement. Then, if NEGP were below AGRs and TNSPs, the movement of the verb to AGRs and TNS node would be blocked. But if we assume that NEGP dominates AGRs and TNSPs in the clause structure, movement of the V+TNS+AGRs to NEG-node will be permitted as adjunction movement. The piece of evidence for this hypothesis comes from surface word order. In finite clauses, the NEG-*ne* always appears verb-initially. In non-finite embedded clauses, *ne* and *pas* appear adjacent: indicating that non-finite verbs do not move to AGRs and TNS-nodes in French (34d and e), see Pollock (1989) and others.

(35) Italian data (Examples from Haegeman 1995: 197-8)

(a) Gianni *non* telefona a sua madre.

“Gianni does not call his mother”

(b) *Non* essendo Gianni arrivato puntuale, abbiamo cominciato senza di lui.

“Gianni not having arrived on time, we started without him”

(c) *Non* avendo lei ancora risposto, *non* so bene cosa fare.

“With her not yet having answered, I don’t quite know what to do”

The Italian NEG-element (*non*), is very similar to the French *ne*, and the Arabic *ma* in that it does not encode TNS/AGRs features, it precedes the finite verb (aux/main verb). Haan (1997: 92) demonstrates that NEG-element in Italian is systematically higher than the modal. Therefore, it is better if assigned the status of head-NEGP dominating AGRs and TNSPs. It is also similar to the English (*not*) in that it moves along with the auxiliary verb to C-node, (see Haegeman, 1995:197). These facts seem to

support our hypothesis about the verb adjunction to NEG-element prior to Spell-out. If NEG and the tensed verb were not in the same node, their movement to C-node would be puzzling.

(36) Spanish data (Examples from Haegeman 1995: 227)

(a) El auto *no* arranca.

“The car does not start”

(b) ¿*No* es éste un día maravilloso?

“Isn’t it a lovely day?”

(c) La niña *no* está hablando por teléfono.

“The girl isn’t speaking on the telephone”

(d) *No* puedo cerrar la ventana.

“I cannot close the window”

The Spanish NEG-element (*no*) precedes the main verb that is fully inflected for AGRs&TNS (36a). It also precedes the auxiliary verbs in (36c and d). In the interrogative clause (36b), NEG-element appears with the auxiliary verb in C-node. These observations suggest that NEGP must dominate AGRs and TNSPs. In (36a and c), the subjects, *El auto* “the car” and *La niña* “the girl” respectively, precede the NEG-element. Assuming that *no* is the head of NEGP, the subject must be in spec-NEG. Since NEG does not encode AGRs and TNS-features, the subject does not appear in spec-NEG unless the necessary features are present in the head of NEG; and this only means that the element encoding these features (the main/auxiliary verb) must adjoin to the NEG-element before Spell-out.

(37) Brazilian Portuguese data (Examples from Haegeman 1995: 229)

(a) A Maria *nao* veio.

“Maria didn’t come”

(b) O Jose *nao* le nada.

“Jose does not read anything”

These examples from Brazilian Portuguese do not look different from the Spanish examples in (36). The negative element (*nao*), head of NEGP, appears to the left of the finite verb, and the subject is to the left of the negative element, as shown in (37a and b). Again, the subject appears in spec-NEG because the elements carrying the checking features have already adjoined to the NEG-node.

(38) Hungarian data (Examples from Haegeman, 1995: 194)

- (a) *Nem* beszelt Janos.
"Janos does not speak"
- (b) *Nem* latta Janos Marit.
"Janos did not see Mary"

Although, Hungarian clause structure may seem slightly different from English and the Romance languages in that it exhibits flexible word order, the sentences in (38) seem to fit very neatly in the analysis described so far. The negative element (*Nem*) appears to the left of the finite verb, and the subject appears to the right of the finite verb.¹⁹ This structure is similar to the Arabic *ma*-clauses when the subject is in post-verbal position. Here, we assume that the subject is probably in spec-AGRs/TNS, and the verb is adjoined to NEG. This assumption is compatible with the analysis described above. Any other analysis will probably need more hard justifications concerning the checking theory.

(39) Chinese data (Examples from Yip Po-Ching & D. Rimmington, 1997: 30, 35, 36, 42, 85, 86, 134)

- (a) Zhei ge wenti *bu* zhongyao.
"This problem is not important"
- (b) Tade kuzi *bu* shi hei de.
"His trousers are not black"
- (c) Wo *mei* you zixingche.
"I don't have a bicycle"
- (d) Ni *bu* yinggai zai zher chouyan/xiyan.
"You shouldn't smoke here"
- (e) Wo jintian *bu* neng lai.
"I can't come today"
- (f) Wo *bu* shi lai jie qian de.
"I've not come to borrow money"
- (g) Ta yiqian *bu* chouyan.
"S/he didn't smoke before" S/he has never smoked"
- (h) Ta *mei*(you) qu Ouzhou.
"S/he didn't go to Europe" S/he has never been to..."
- (i) Shei *mei*(you) ting zuotian de guangbo?
"Who didn't listen to yesterday's broadcast".

Chinese has a rather different clause structure from the languages so far explored. For example, the verb does not inflect for AGRs and TNS. Tense is specified by a time expression placed before the verb or at the

beginning of the sentence. Chinese has been long recognised as a language with no overt syntactic movements (Huang, 1982). With these properties in mind, we expect no overt verb movement to AGRs and TNS, and consequently no overt verb adjunction to NEG-element. However, the fact that the verb lacks AGRs and TNS morphology cannot be taken alone as a clue for overt verb-movement to AGRs and TNS-nodes. There are two observations in the examples above; first, the subject appears in initial position. Second, the NEG-elements, (*bu/mei*), occur before the verb in finite clauses. The order of elements in these sentences is as follows:

(40) Subject-Time expression- *bu/mei* -(Aux.)-verb-Object/ ...

Suppose that the negative element *bu/mei* is the head of a NEGP, the subject being placed to the left of NEGP must have moved prior to Spell-out from within its original position in VP, which is supposed to be a movement to the right of NEGP. The subject, motivated by checking requirement, must move to a checking position. The target of movement must be the specifier position of a category encoding checking features, such as AGRs and TNS-features including the Case-feature.

At this point, there are two assumptions; the first assumption is that the subject moves to the specifier of an abstract AGRs/TNS-head in order to satisfy the requirements of the checking theory. The second assumption is that AGRs and/or TNS is the node to which a verbal element (either the auxiliary or main verb) moves prior to Spell-out. Suppose that the second assumption is the case, how can we provide independent evidence for verb-movement to AGRs and TNS-nodes in the absence of morphological clues. As we have observed in the Arabic examples, the NEG-element and verbal element (either the auxiliary or main verb) each of which is a head of its own phrase. Yet, they cannot be separated from each other by, for example, a time expression or a place expression or even by the subject itself. Word order like the following is ungrammatical:

- (41) (a) Subject- *bu/mei* (*Time expression) -(Aux.)-verb-Object/...
 (b) Subject- *bu/mei* (*Subject) -(Aux.)-verb-Object/...
 (c) Subject- *bu/mei* (*place expression) -(Aux.)-verb-Object/...

All these constructions marked by the asterisk would not appear in this position. But a place expression may appear between the auxiliary verb and the main verb as it is clear from example (39d) repeated below as (42) for convenience:

- (42) Ni *bu yinggai zai zher chouyan/xiyan*.
 “You shouldn’t smoke here”

The place expression *zai zher* “at here” appears between the auxiliary verb *yinggai* “should” and the main verb *chouyan* “inhale-smoke”. Now, it is clear that the main verb possibly remains in its original position in VP, and the auxiliary verb *yinggai* “should” (a modal verb) appears adjacent to the NEG element. Recall that by (41), which shows that NEG and AUX/VERB must be adjacent, this only means that they are adjoined to each other at the same node. The natural conclusion will perhaps be that NEGP in which the NEG-element *bu/mei* is the head; this phrase dominates AGRs and/TNS phrase. Prior to Spell-out the auxiliary/ main verb moves to AGRs and TNS-nodes but does not remain there, it moves up to adjoin to NEG-element.²⁰ The subject will then check its features in spec-NEG in the manner described above.

(VI) CONCLUSION

This study investigates some sentential negative elements in a number of different languages, with special emphasis on Arabic data. We have proposed an analysis within the framework of the Minimalist Program as described in Chomsky (1995). Some suggestions proposed in Jonas (1996), concerning properties of AGR and TNS, are adopted; but those concerning the nature of NEG are left out. We have emphasised the idea that NEG elements are not being treated as an invariant category. Some negative elements belong to the Adverb category others are functional categories. The English negative element (*not*) belongs to the set of functional categories.

This study maintains a theory in which sentential negative elements closely associated with AGRs, TNS and C are recognised as functional categories. They project from the lexicon as heads of their own phrase, NEGP. The idea that NEG elements are functional heads has been proposed in various linguistic studies. For example, Ouhalla (1991) proposed the NEG-Parameter. Our analysis of Arabic NEG elements shows that the NEG Parameter I (b) (proposed in Ouhalla (1991) and illustrated in 10 above) applies to Arabic NEG elements *lan*, *lam*, *la*, and *ma*; where *lan*, *lam*, *la* c-select AGRs but are c-selected by finite TNS. The element *ma*, that only encodes the feature NEG, c-selects finite TNS. The elements *lan*, *lam*, *la*, encode both TNS and NEG and therefore are bound in accordance with the NEG Parameter. The element *laysa* is a special kind

of negative verb projecting within the Predicate Phrase in nominal sentences.

Benmamoun (1992) described some aspects of Arabic negative constructions though under a different analysis from the one proposed in this study. Haegeman (1995) discussed the syntax of negation in various languages, proposing what she called the NEG-Criterion. Although her study includes many insightful discussions, we explore negative constructions from a completely different perspective.

Our analysis rests on the following assumptions; first, NEG elements are treated as heads of NEGP. Second, the features encoded in the head of the phrase determine its rank or position in clause structure. For example, a NEGP whose head encodes TNS must be placed below TNSP, such as *lam/lan/la* elements. By doing so, we allow the NEG-element to project as an autonomous phrase before moving to TNS to satisfy its morphological requirements before Spell-out. A NEGP whose head encodes verbal properties like *laysa*, for instance, must project within the VP, before moving to AGRs and TNS. Finally, a NEGP whose head only encodes NEG-feature may be placed higher than AGRs&TNSPs like the Arabic *ma*.

The third assumption is based on the fact deduced from the order of elements in Arabic negative constructions. For example, we have shown that the lexical subject does not intervene between the NEG-element and the verb in Arabic as well as in some other languages.²¹ From this observation, we have inferred that the verb must have adjoined to the NEG-element in the same node. Here, movement of the lexical (or auxiliary) verb to NEG is not an incorporation process but an adjunction movement.

We explored data from various languages such as: English, French, Italian, Spanish, Portuguese, Hungarian, and Chinese, and we concluded that sentential NEG-elements in these languages could be manipulated in the same way as Arabic data. The preliminary deductions, so far reached seem to support our hypothesis. This will pave the way for more minimalist steps. We particularly limited syntactic operations to requirements of subcategorization properties of items and the checking theory.

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NOTES

1. This study deals with data from Standard Arabic and a number of other languages such as: English, French, Italian, Spanish, Portuguese, Hungarian, and Chinese.
2. I would like to limit this study to these three types of negative elements that have apparent interactions with other constituents of clause structure. Other types of negative elements are not included in this study.
3. To readers who are not well acquainted with Arabic: Arabic has a dominant VSO word order and an alternative SVO word order, becoming increasingly popular in spoken varieties. Also Arabic is a pro-drop language almost like Italian. I refer the interested reader to Ouhalla (1988), Alharbi (1990), and Fassi-Fehri (1987), among many others.
4. There is some kind of modality expressed here. I would like to ignore this phenomenon in this study.
5. Holmberg (1995), have some objections on theoretical and conceptual grounds against AGR as a sentential functional category. Also, Chomsky (1995: 349-55).
6. Some researchers place NEGP in spec-position treating it as a sentence/ VP adverb. For example, Holmberg and Platzack (1995) and Jonas (1996), claim that negation words have the same distribution as sentence adverbials in Scandinavian languages. Such conclusions are based on purely distributional grounds. Other selectional and syntactic factors seem to be most likely favourable to Ouhalla and to us here. There are NEG elements that are similar to adverbs in their distributional properties, like for example the French *pas* and the Icelandic *ekki*. These elements are probably different from the negative elements that are closely associated with tense. Such elements are not included in this study.
7. Benmamoun (1992), claims that the NEG element in Moroccan Arabic is an affix (e.g. *ma-xraj-sh*, *ma-gra*, (data taken from Webelhuth (1995: 77). If Benmamoun's analysis of the verbal morphology in Moroccan Arabic were correct, then this would mark the evolutionary process of the NEG elements becoming bound morphemes. It provides a further piece of evidence for our analysis of preverbal negative phrase by virtue of the Mirror Principle of Baker (1988). My personal feeling is that this evolutionary stage has not happened yet in Moroccan Arabic. This case and similar cases are better recognised as contraction phenomena (similar to *ganna* and *wanna* contraction in some varieties of American English) caused by PF factors, usually occurring between adjacent elements at this level.
8. For more elaborate discussion of these matters, see Benmamoun (1989), (1992) and Ouhalla (1991).
9. Some grammarians claim that *laysa* is a complex word consisting of the negative particle *la* plus *aysa*, equivalent to verb (*to be*) in English. It has become a frozen form many years ago, probably during earlier stages.
10. Collins and Branigan (1995) argue that once TNS-zero adjoined to AGRs, the "active" features are on the head of the chain so formed, and thus must be checked by a nominal category in [spec-AGRs]. Since we assume, here, that AGRs moves to TNS, the latter will be the head of the chain formed by this movement.

11. Watanabe (1993) modifies the Checking theory to conform to his suggestion for a follow-up checking in positions higher than AGRs. See references in Jonas (1996: 185).
12. A similar observation was noted by Fassi-Fehri as he claims that the subject agreement morphology attaching to the Arabic verb in SVO word order is not an AGRs element but is a kind of expletive subject (See Ouhalla, 1991: 126).
13. Ouhalla (1991) and Benmamoun (1992) (among others) argued for a similar analysis.
14. Cormack and Smith (1998: 285-322) argue that there are three negation positions in English clause structure; (a) sentential 'Polarity' NEG position, (b) adverbial 'constituent' NEG position, and (c) Echoic 'question' NEG position. Contrary to the approach we adopt here, they do not assume a theory of movement in their analysis
15. Hyams (1992: 378-9) argues that in children speech external NEG-element occupies sentence initial position; it is only at a later stage that children seem to move the subject from spec,v to spec,I. See Radford (1992: 151-5).
16. Some researchers like Haegeman (1995) and Cormack and Smith (1998) distinguish between contracted and non-contracted Aux/ modal +NEG forms. In the analysis proposed here, we do not argue for a deeper difference between these forms.
17. I am aware of the objection particularly against the first piece of evidence. The objection may come from the possibility of inserting an element between the auxiliary verb and *not*, such as "I'm sorry, I would rather not go..." I think that the elements *would* and *rather* should be recognised as one unit.
18. See Ouhalla (1999: 391) for discussion about the use of *pas* without *ne* in finite clauses in Colloquial French and in child language see Deprez and Pierce (1993: 39-40). See also Byrne and Churchill (1997: 437-438.) It could be a beginning of morphological evolution process in the language that *pas* tends to replace *ne* in Colloquial French and child language. I take a different view here, following Zenuttini (1989), *ne* is the head of NEGP, and *pas* is a VP-adverb.
19. Bulgarian and Macedonian are similar to Hungarian in that the NEG-element appears in initial position in the clause; for more examples, see Rudin (1999: 541-86). Takano (1996: 27) states that Japanese verb, whether it is a main verb or an aux-verb, never appears to the right of the negative element (*nai=not*): (a) John-ga siawase da "*John is happy*." (b) John-ga siawase da *nai* "*John is not happy*." Knowing that Japanese is head-final, the NEG-element that appears to the left of the tensed verb in (b) must occupy the highest node in the clause.
20. Laka (1990) and Zanuttini (1991) among others postulate that there is a correlation between negation and tense.
21. Although the adverb position is quite free in Albanian and Modern Greek, Rivero (1994: 75-6) demonstrates that an adverb cannot intervene between negation element and a finite aux/ V, irrespective of the nature of the adverb. For more insightful descriptions of clause structure of the Balkan languages, see Rivero (1994).

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