# On Negative Imperatives in Korean\*

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### **1** Introduction

Korean has two types of sentential negation: long and short. Long negation occurs after the main verb followed by light verb ha- ('do'), as in (1a). Functioning like do-support in English, ha-carries verbal inflections. Short negation occurs before the verb, as in (1b).

- (1) a. Inho-nun hakkyo-ey ka-ci **ani** ha-yess-ta. Inho-TOP school-to go-CI NEG ha-PAST-DECL 'Inho did not go to school.'
  - b. Inho-nun hakkyo-ey **an** ka-ss-ta. Inho-TOP school-to NEG go-PAST-DECL 'Inho did not go to school.'

Negative imperatives however cannot be formed with either short or long negation, as in (2a) and (2b). They instead require a special form *mal*-, as in (2c). Syntactically, the *mal*- form is similar to long negation in that it must occur after the main verb, but it differs from long negation in that it cannot be followed by *ha*-. With long negation *ani*, *ha*- is required in order to carry verbal inflections such as tense and sentence type markers, but *mal*- does not require and cannot occur with *ha*- as it is verbal in category and hence directly carries verbal inflections.

- (2) a. \* Hakkyo-ey **an** ka-la! school-to NEG go-IMP 'Don't go to school!'
  - b. \* Hakkyo-ey ka-ci ani ha-yela! school-to go-CI NEG ha-IMP 'Don't go to school!'

c. Hakkyo-ey ka-ci **mal**-ala! school-to go-CI NEG-IMP 'Don't go to school!'

Interestingly, as observed in Lee (1988, 1993), young Korean children (2-3 years of age) sometimes produce negative imperatives with short negation, as illustrated in (3).

- (3) a. (To the father leaving for school) Appa, hakkyo an ka! Daddy, school NEG go
   'Daddy, don't go to school!' (Lee 1993:8 [SK 2;5])
  - b. An pwul kkeyo! NEG light turn-off
    'Don't turn off the light!' (Lee 1993:8 [CK 2;1])

The fact that examples such as (3) are allowed in child grammar suggests that the syntax/semantics of the imperative is in principle not incompatible with that of short negation. The question is what aspect of the learner's grammar changes so that examples like (3) come to be ruled out. Identifying this then will enable us to understand why short negation is incompatible with the imperative in adult grammar.

In this squib, we raise and address two questions concerning negative imperatives in Korean: (i) what is the morphosyntactic nature of *mal*- in negative imperatives and why is it impossible to form negative imperatives with long negation *ani*?; and (ii) why is it impossible to form negative imperatives with short negation *an* in adult grammar, and yet why is it possible in child grammar?<sup>1</sup> We propose that the constraint that rules out short negation *an* as well as long negation *ani* in the imperative is morphological in nature, and not syntactic or semantic. We will argue that this constraint follows from the Subset Principle and Vocabulary Insertion in Distributed Morphology (Halle and Marantz 1993, 1994).

In section 2, we show that *mal*- not only occurs in the imperative but also occurs in other contexts that can be characterized as contributing deontic modality. Our discussion on *mal*- will lead us to the conclusion that the clause structure should somehow make a distinction between a category for modality and a category for illocutionary force (sentence type), and that *mal*- is

a spell-out of 'long negation + ha-' in the context of deontic modality, to which the imperative belongs. Building upon these conclusions, we then address the question why short negation is impossible in negative imperatives in sections 3 and 4. In section 3, we consider and reject a few syntax- and semantics-based approaches as possible analyses. In section 4, we present in detail our morphology-based proposal and show how our analysis accounts for the adult data as well as the child data.

### 2 Morphosyntactic nature of mal-

For an account of the morphosyntactic nature of *mal*-, we will extend and refine the descriptive generalization given in Lee (1978): i.e., 'long negation + ha-' lexicalizes as *mal*- in the context of imperatives and propositives.

*Mal*- can occur in non-imperatives as well, in sentences expressing deontic modality. For example, it can occur in matrix clauses as in (4), and in embedded clauses under directive/volitional verbs as in (5).

- (4) Cey-ka hakkyo-ey ka-ci mal-kkayo?I-NOM school-to go-CI NEG-Q'Should I not go to school?'
- (5) a. Inho-ka Yumi-eykey hakkyo-ey ka-ci mal-lako tangpwuha-yess-ta. Inho-NOM Yumi-to school-to go-CI NEG-COMP tell-PAST-DECL
   'Inho told Yumi that she should not go to school.'
  - b. Inho-nun hakkyo-ey ka-ci mal-aya ha-n-ta.
     Inho-TOP school-to go-CI NEG-COMP do-PRES-DECL
     'Inho should not go to school.'<sup>2</sup>
  - c. Inho-nun Yumi-ka hakkyo-ey ka-ci mal-ki-lul pala-n-ta.
     Inho-TOP Yumi-NOM school-to go-CI NEG-NMZ-ACC want-PRES-DECL
     'Inho wants Yumi to not go to school.'<sup>3</sup>

In examples like (5b) and (5c), it is however also possible to use short negation *an* as well as long form *ani* in the embedded clause without any difference in meaning, as illustrated in (6).

- (6) a. Inho-nun hakkyo-ey ka-ci ani ha-yeya ha-n-ta.
   Inho-TOP school-to go-CI NEG do-COMP should-PRES-DECL
   'Inho should not go to school.'
  - b. Inho-nun hakkyo-ey an ka-aya ha-n-ta.
    Inho-TOP school-to NEG go-COMP should-PRES-DECL
    'Inho should not go to school.'
  - c. Inho-nun Yumi-ka hakkyo-ey ka-ci **ani** ha-ki-lul pala-n-ta. Inho-TOP Yumi-NOM school-to go-CI NEG do-NMZ-ACC want-PRES-DECL 'Inho wants Yumi to not go to school.'
  - d. Inho-nun Yumi-ka hakkyo-ey an ka-ki-lul pala-n-ta.
     Inho-TOP Yumi-NOM school-to NEG go-NMZ-ACC want-PRES-DECL
     'Inho wants Yumi to not go to school.'

We think that this is indicative of the possibility that some of the volitional verbs and/or the complementizers have two selectional possibilities: when a deontic modal clause is selected, *mal*appears, and when a non-deontic modal clause is selected, an(i) appears.<sup>4</sup> This however does not result in a difference in meaning because in both cases, the volitional matrix verb (and the complementizer) contributes the meaning of deontic modality. In cases where a deontic modal clause has been selected as in (5), the deontic modality reflected in the embedded clause is behaving as an agreement marker with the complementizer or the matrix verb.<sup>5</sup>

Given that the imperative also constitutes a deontic modality context, we can now recast Lee's original generalization as follows: 'long negation + ha-' lexicalizes as *mal*- in the context of deontic modality. Under this view, *mal*- and 'long negation *ani* + ha-' have essentially the same syntax, but are spelt-out differently depending on the modality encoded in the clause structure.<sup>6</sup> We will formalize this as a morphological constraint in Distributed Morphology framework in section 4. In the same section, we will also propose an analysis of *ha*- in 'long negation *ani* + ha-' as a *dissociated* morpheme (a terminology from Embick 1997), a morpheme that is inserted in morphology to meet a language-particular well-formedness condition.

But before we can present our analysis, we need to first clarify our assumptions about clause structure and the syntax of the two types of negation. The fact that *mal*- can be used in imperatives

as well as in non-imperatives that express deontic modality suggests that the category for deontic modality and the category for the imperative need to be distinguished somehow in the clause structure. Although there may be different ways of implementing this idea (cf. Sells 2004), we will choose to do so by postulating two separate projections for each category: a projection for modality and a projection for illocutionary operator, as illustrated in (7). While the projection of modality is present in the clause structure of imperatives, we will assume that it may not be present in a clause structure representing simple non-modal sentences. We will also assume that in tensed sentences, TP projects right below ModP, but it does not do so in imperatives, as argued in Zanuttini 1991 and Han 2000 that imperatives are untensed. The proposed clause structure is consistent with Cinque's (1999) proposal for the universal hierarchy of functional projections in which the force-indicating projection is higher than the projections of modality.<sup>7</sup>



We will further assume that long negation projects NegP as in (7a), and short negation starts out as a left adjunct of vP as in (7b) but cliticizes to v, similar to Neg-cliticization in Romance (Cinque 1999).<sup>8</sup> The fact that a sentence can contain both short and long negation as in (8) supports two different positions for the two types of negation (see also Kim 2000a). And the fact that *ha*-, which is similar to English *do*, is required with long negation supports the assumption that long negation is a head that projects a phrase of its own (NegP) and blocks the verb from coming together with inflections (see Ahn 1991; Cho 1994; Yi 1994 1994).

(8) Inho-nun amwu kes-to **an** masi-ci **ani** ha-yess-ta. Inho-TOP any thing-even NEG drink-CI NEG do-PAST-DECL 'Inho didn't not drink anything.  $\approx$  Inho drank something.'

A good indicator of the clitic status of short negation comes from the fact that while in the adult grammar, short negation must occur immediately before the verb with nothing intervening between them (see Han 1987; No 1988; Kim 1999), 2-3 year-old children often produce sentences in which short negation and the verb are separated by an object or an adverb, as in (9) (Hahn 1981; Cho & Hong 1988; Kim 1997; Baek 1998; Hagstrom 2002). Assuming that children's phrase structure is continuous with adults', these productions by children tell us that they know where to generate short negation, but not that it is a clitic. So, the difference between adult and child grammar can be explained as follows: short negation, which heads its own projection, left-adjoined to vP, cliticizes onto v in the adult grammar, but fails to do so in the child grammar (Han & Park 1994).

(9) a. Na <b>an</b> pap mek-e.	b. <b>An</b> mak uwl-e.
I NEG rice eat-DECL	NEG much cry-DECL
'I do not eat rice.'	'(I) do not cry much.'
(Cho & Hong 1988:34 [2;2-6])	(Cho & Hong 1988:35 [2;2-6])

Note that while identifying the correlation between *mal*- and the deontic modality context sheds light on why long form *ani* cannot be used in negative imperatives, it is not yet obvious why short negation cannot.<sup>9</sup> We now turn to this issue.

### **3** Syntax- and Semantics-based Approaches?

Before we present our analysis, we will first rule out a few possible syntax- and semantics-based approaches, as a way of motivating our own morphological analysis.

Much work has proposed to account for the (in)compatibility of negation and the imperative based on various Romance, Balkan, and Germanic languages (Zanuttini 1991; 1994; 1997; Rivero 1994; Rivero and Terzi 1995; Han 2000; 2001). Although the details are different, an idea shared by all these approaches is that in some languages (such as Italian, Spanish, Modern Greek), the syntax of the imperative and the syntax of negation are incompatible, ruling out negative imperative formation, and so negative commands are instead formed with another sentence type, most commonly the subjunctive. This approach however cannot be extended to Korean because it would

miss the generalization that short negation cannot occur in a wider range of sentences, which can be characterized as deontic modality sentences. Note also that the problem that Zanuttini, Rivero and Terzi, Han, and others have tackled is not the same problem that we are faced with. In languages that they are dealing with, the negative imperative simply does not exist. In contrast, in Korean, the negative imperative does exist, as indicated by the imperative mood morphology on the verb, as in (2c). Thus, it is not at all obvious that an account of why negative imperatives cannot be formed in a language should also answer why negative imperatives in a language is formed with a particular type of negation.

An approach similar in spirit to ours has been proposed by Miyoshi (2002) and Bošković (2004). They argue that negative imperatives are ruled out in Greek and other languages because at PF when the merger of morphological features takes place, negation blocks the Imp feature in C from merging with the verb in INFL. Their analysis can be extended to Korean *mal*- negation, if we say that (i) the deontic modality feature in Mod must merge with the verb and (ii) *mal*- form is inserted in Mod. Assuming the clause structure in (7), deontic modality sentences with long form *ani* is ruled out because Neg for long negation intervenes between Mod and the verb, but *mal*- form is not a problem because it supports the feature in Mod (p.c. Željko Bošković). This approach, however, cannot answer why negative imperatives are impossible with short negation, as short negation does not intervene between the verb and Mod.

Another possible approach is to exploit the assumption that there is scope difference between long and short negation, and formulate an analysis based on this assumption. Han & Lee (2002) pursue this approach and propose that semantics of short negation with restricted scope possibility is incompatible with the semantics of negative imperatives. But the problem is that there is no consensus in the literature or among speakers as to what the scope facts of negation are (see Cho 1975; Suh 1989; Park 1998a; Kim 2000b; Song 1982; Baek 1998; Hagstrom 2002; Han et. al. In press). Crucially, the speakers that report that there is no scope difference between long and short negation reject negative imperatives with short negation. Given this, it is doubtful that scope of short negation can tell us anything about why short negation is impossible in imperatives (or deontic modality sentences).

A related approach is to formulate an analysis based on the assumption that there is a semantic difference between short and long negation. But it is doubtful that this will work because as far as semantics is concerned, they are the same type of objects, a function from propositions to propositions ( $\lambda p.\neg p$ ).

### 4 Our proposal: a morphological constraint

We propose that the same morphological constraint that rules out long negation form *ani* in the deontic modality context also rules out short negation in the same context. This constraint applies post-syntactically to the verbal complex, which is formed either through verb-raising (Cho 1994; Yi 1994 1994; Choi 1999) or INFL-lowering (Yoon 1994; Han and Park 1994; Park 1998b).<sup>10</sup> For instance, as short negation in Korean behaves like a clitic on the verb, the verbal complex of a tensed sentence with short negation will include nodes for tense, modality and illocutionary (sentence type) morphology as well as negation. Within the framework of Distributed Morphology (DM), this verbal complex will have been formed and spelt-out once the syntactic structure is shipped off to the morphological component. In what follows, we will argue that the fact that negative imperatives (as well as other types of deontic modality sentences) cannot be formed with short negation *an*(*i*) follows from the Subset Principle and Vocabulary Insertion in DM. We will start our discussion with simple tensed sentences with short and long negation *an*(*i*), and then move onto imperatives with *mal*-.

In DM, the output of syntax is a structure with a bundle of morphosyntactic (and semantic) features on each node, which then can be readjusted through a series of applications of highly constrained language-particular morphological operations. For instance, in the tensed non-modal declarative sentence in (1b) with short negation, assuming the clause structure in (7b) (minus ModP) and verb-raising, the syntax will derive the verbal complex structure represented in (10a). This structure has been produced by first Neg-cliticizing short negation to v, and raising the verb all the way to C. In morphology, this structure will undergo readjustment by inverting the ordering

between V and the v containing Neg and v, enforced by the pro-clitic property of Neg (10b).



Vocabulary items, which are also specified with features, are inserted in (10b) post-syntactically, in the morphological component. This is controlled by the Subset Principle: for a feature bundle of a given node, the vocabulary item that has the most number of matching features and/or contextual conditions is inserted. For example, by making use of the vocabulary list specified in (11a), (10b) will be spelt-out as (11b).

(11)

a.

Features	Vocabulary Item
[neg]	an(i)
[past]	(ye)ss
[decl]	ta
[v]	Ø / V
[v]	ha



Note that the Subset Principle dictates that v be spelt-out as zero, and not as light verb ha-, as zero is contextually conditioned to be inserted if there is a V in the environment, being more specific than ha-. This contextual condition is motivated by the morphological constraint that a single verbal complex cannot have more than one verbal element supporting the verbal inflections.

In the tensed declarative sentence with long negation in (1a), assuming the clause structure in (7a) (minus ModP) and verb-raising, V moves and adjoins to v, but does not continue up the clause structure, as Neg intervenes. Instead, Neg moves up all the way to C, deriving the complex structure represented in (12a). But in this structure, there is no verbal element to support tense

and sentence type inflections. Thus, an operation similar to English *do*-support takes place in morphology (Halle and Marantz 1993: 137-138): light verb v is inserted, adjoining to Neg node, as a dissociated morpheme, as in (12b). Vocabulary Insertion then takes place in (12c), using the list in (11a).<sup>11</sup> In this case, v is spelt-out as *ha*-, as there is no V in the environment.



In the imperative with *mal*- in (2c), assuming the clause structure in (7a) (minus TP), V moves only up to v, and Neg moves all the way up to C, deriving the complex structure represented in (13a). Since there is no verbal element to support the verbal inflections, v will be inserted, as a dissociated morpheme, as in (13b). We propose that before Vocabulary Insertion takes place, a contextually conditioned morphological operation called Fusion applies to Neg and v nodes, as summarized in (14). Fusion (Halle and Marantz 1993: p. 116) refers to an operation that takes two sister terminal nodes that are under a single node and fuses them into a single terminal node. In the case at hand, in the environment of [deontic], Neg and v that are sisters under Neg are fused into a single terminal node (13c). Vocabulary Insertion can now apply, using the list in (15a).



(14) In the environment of [deontic], fuse Neg and v that are sisters under a single node into a single terminal node.

(15)

a.	
Features	Vocabulary item
[neg]	an(i)
[neg, <i>v</i> ]	<i>mal</i> / [deontic]
[deontic]	Ø
[imp]	(a)la



In (15a), *mal* is more specified than an(i), and the specification for *mal* matches the feature content and the environment of the terminal node Neg in (13c). Thus, *mal* is inserted, instead of *ani* in (15b). We will assume that [deontic] is spelt-out as zero.

We now turn to how imperatives with short negation are ruled out under the proposed morphological analysis. If you were to form an imperative with short negation as in (2a), then the syntax would output the structure in (16a) for the verbal complex, assuming the clause structure in (7b) (minus TP). To this structure, reordering as in (16b) would apply. Moreover, the fusion of Neg and v would apply as well because these nodes would meet the contextual condition of being sisters under a single node and being in the environment of [deontic]. This then would feed the Vocabulary Insertion of *mal*- under the fused node, spelling out v as well as [neg] (16c). Further, a lexical verb would have to be inserted under the root V node. But then the verbal complex would end up with two verbal elements, *mal*- and the lexical verb, an ill-formed morphological object. This then is why imperatives as well as other types of deontic modality sentences are incompatible with short negation.<sup>12</sup>



Our analysis can account for the acquisition data in (3). There are two possible accounts consistent with the proposed morphological analysis. The first possible account of the acquisition data exploits the fact that children in the same age range sometimes fail to cliticize short negation onto the verb, as was illustrated in (9) (Hahn 1981; Cho & Hong 1988; Kim 1997; Baek 1998; Hagstrom 2002). For the children who have not yet acquired the clitic status of short negation, Neg will not be included in the verbal complex of an imperative with short negation. This means that Neg and v do not form sisters, and thus cannot be fused. The condition for inserting *mal*-hence will not be met. Instead, *an* will be inserted under Neg, and the lexical verb and the verbal inflections will be inserted in the terminal nodes in the verbal complex, without any morphological violation.

A second possible account of the acquisition data arises from the fact that Korean children acquire short negation before long negation. Park (1998a) shows that 3 year-olds in general can only produce short negation, whereas 5 year-olds can produce both short and long negation. Given that *mal*- has the syntax of long negation, children who have not yet acquired the syntax of long form *ani* would not have acquired the syntax of *mal*- either. In such case, the young learner's list of vocabulary items would not include *mal*- with corresponding feature specifications [neg, v]. At this stage, if the child has not yet learned the clitic-status of short negation, then *an* will be inserted for [neg] without any violation, as explained above. And if the child has learned the clitic-status of short negation, then the verbal complex would include a node with [neg] and [v] in the context of [deontic]. But since *mal*- specified with [neg, v] is not in the child's list of vocabulary items, the next best choice is *an* with [neg], according to the Subset Principle. This then allows the insertion of a lexical verb along with the co-occurring inflections.<sup>13</sup> a

A prediction that emerges from our proposal is that an imperative should be able to contain short negation if it also contains long form *mal*-. This is because in a sentence with both long and short negations, the lexical verb with cliticized short negation, and the verbal complex with long negation are contained in separate head-level constituents. The prediction is borne out in (17). (17) Amwu kes-to an masi-ci mal-ala! any thing-even NEG drink-CI NEG-IMP 'Don't not drink anything!'

Assuming verb-raising and clause structures in (7) (minus TP), to generate the structure for (17), short negation cliticizes to v, the lexical verb V raises only up to v, and long negation moves through Mod and then to C. So, the syntax outputs the structure in (18a), where one of the head-level constituents contains the lexical verb and short negation, and the other contains long negation. And then in morphology, reordering between V and v containing Neg takes place (18b), followed by v-insertion under Neg node contained in C (18c), as a verbal element is needed to support the inflections. Moreover, the Neg and v contained in C undergo Fusion, as they are sisters under a single terminal node Neg, and are in the environment of [deontic]. Vocabulary Insertion takes place as before, resulting in (18d).<sup>14</sup>









d. Fusion and Vocabulary Insertion



## 5 Conclusion

To conclude, assuming that the clause structure of imperatives has a projection of deontic modality and a projection of the imperative operator contributing the illocutionary force, we proposed that *mal-* in negative imperatives is a spell-out of long negation and v in the context of deontic modality. Assuming further that long and short negations occur in two different positions in a clause structure, we proposed that the reason why short negation as well as long negation an(i) is incompatible with imperatives (and other deontic modality sentences) is morphological, not syntactic or semantic. We argued that this incompatibility follows from the Subset Principle and Vocabulary Insertion in Distributed Morphology. It remains to be seen whether it is feasible to extend a similar morphology-based analysis to other Romance and Balkan languages that do not allow negative imperatives.

#### Footnotes

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<sup>1</sup>By imperatives, we refer to sentences with distinctive imperative morphology on the verb and/or distinctive imperative syntax. To refer to a function of imperatives, we use terms such as COM-MAND and REQUEST.

<sup>2</sup>In (5b), the complementizer *-aya* and the higher verb ha- are closely connected, and they together express deontic modality. But the fact that both *mal*- and *ha*- can be tensed, as in (i), supports that examples like (5b) are complex sentences. We thank a reviewer for clarifying this point.

(i) Inho-nun hakkyo-ey ka-ci **mal**-ass-eya ha-yess-ta. Inho-TOP school-to go-CI NEG-PAST-COMP do-PAST-DECL 'Inho should not have gone to school.'

<sup>3</sup>We use NMZ as a gloss for nominalizer.

<sup>4</sup>A similar situation is attested in Romance where a predicate can select a subjunctive or an indicative clause (Quer 1998).

<sup>5</sup>This begs the question as to why such an optionality in selection exists. We do not have an answer to this question at this time.

<sup>6</sup>A reviewer observes that there are negative sentences that seem to be deontic but require *ani*, and provides, as an example, a sentence containing modal suffix *-keyss* with the meaning of intention, as in (i). We do not think that *-keyss* expressing intention is a marker of deontic modality. In (i), *-keyss* expresses the intention of the speaker to go home, thus implicating that the speaker has the desire to go home.

(i) Na-nun cikum cip-ey ka-ci ani ha-keyss-ta /\* mal-keyss-ta.
 I-TOP now home-to go-CI NEG do-modal-DECL /\* NEG-modal-DECL
 'I do not intend to go home now.'

There are, however, idiomatic usages of *mal*- occurring in sentences that do not express deontic modality, as discussed in in Lee 1977. Some examples are given in (ii). The analysis we provide for *mal*- does not extend to these idiomatic usages.

- (ii) a. Kulem, coh-ko mal-ko. of course good EMPHASIS'Of course, it is good.'
  - b. Pihayngki-ka poil-lak mal-lak ha-n-ta.
    plane-NOM visible-barely cease-barely do-PRES-DECL
    'The plane is barely visible.'

c. Na-nun ne-ka ka-kena mal-kena sangkwan an ha-n-ta. I-TOP you-NOM go-or not-or concern NEG do-PRES-DECL 'I don't care if you go or not.'

<sup>7</sup>For sake of simplicity, we leave out all the specifiers from the structures in (7).

<sup>8</sup>A reviewer asks what our thoughts are on the status of *-ci* on the main verb followed by long negation. One of the main views on *-ci* is that it is a nominalizer that introduces a new clause (Hagstrom 2002 and references therein). Under this view, a sentence with long negation would be a complex clause, with *-ci* heading an embedded clause. But as pointed out by Han et. al. (In press), this analysis does not fare well with how negative polarity item (NPI) licensing works in Korean. NPIs in Korean are possible as long as there is a negation in the same clause (Choe 1988). Han et. al. (In press) observe that if *-ci* is a nominalizer that introduces a new clause, then NPI in an object position should not be licensed by long negation, as an object would belong to a different clause from long negation. But this is not true, as can be seen in (i). In light of this fact, we treat *-ci* as an inflection on the verb selected by long negation, similar to the way perfect *have* in English selects for a participle form of the following verb.

(i) Toli-ka [amwu kesto mek-ci] ani ha-yess-ta. Toli-NOM any thing eat-CI NEG do-PAST-DECL 'Toli didn't eat anything.'

<sup>9</sup>Alternatively, as in Kim 2000b and Yoon 1994, we can take 'long negation + ha-' as a lexical unit that has the status of an auxiliary verb, and say that *aniha*- gets spelt out as *mal*- in a deontic modality context. But this approach as it is leaves unanswered why negative imperatives cannot be formed with short negation, just as the approach based on our view on long negation does.

<sup>10</sup>There is some disagreement in the extant literature as to whether Korean has verb-raising, or INFL-lowering. For the purposes of the analysis proposed here, it does not matter which position is adopted, as long as the syntax allows for the verb to come together with the material under the functional nodes, resulting in a verbal complex, which gets spelt out as an inflected verb.

<sup>11</sup>We are assuming that short negation *an* and long negation *ani* are phonologically variable spellouts of the same vocabulary item. But as was argued in section 2, for us, short and long negation are different in their syntax.

<sup>12</sup>A reviewer suggests that the grammar should be able to make a distinction between auxiliary and lexical verbs, possibly using features such as [+aux] and [-aux], and if so, there should be no competition between *mal*- and the lexical verb, as the auxiliary verb status of *mal*- is simply incompatible with a verbal complex requiring a lexical verb. We, however, do not think that *mal*should be pre-specified as an auxiliary verb. We adopt the assumption in Distributed Morphology that vocabulary items are not specified with category labels, and that category terms such as nouns or verbs are derivative and configurational.

<sup>13</sup>In addition to an(i) and *mal*-, Korean has another type of negation *mos* with the meaning of inability. The syntax of *mos* is similar to an(i) in that it can appear as both short form and long form, as in (i).

(i) Inho-nun hakkyo-ey **mos** ka-ss-ta / ka-ci **mos** ha-yess-ta. Inho-TOP school-to NEG go-PAST-DECL / go-CI NEG ha-PAST-DECL 'Inho could not go to school.'

Our morphological analysis can be extended to handle *mos*. To generate sentences such as those in (i), what we need to say is that the clause structure of sentences expressing inability has Mod encoding the modality of ability, and that *mos* is a vocabulary item specified with [neg] and is contextually conditioned to be inserted in the environment of the ability modality.

<sup>14</sup>A reviewer notes that long negation and short negation should not be competing, since otherwise, they could not both exist in the language. We would like to clarify that in our analysis, it is the vocabulary items corresponding to *mal*- and *an*(*i*) that are competing, not the syntactic derivations corresponding to long negation and short negation. Thus, the fact that both forms exist syntactically is not an issue for us, whether they occur in separate sentences or in the same sentence, as in (17).

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