

# THE SYNTAX OF THE DOUBLE MODAL CONSTRUCTION

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## ABSTRACT

*This paper looks at a problem in syntactic variation, the syntax of the so-called double modal constructions in Southern United States English. Its purpose is to clarify the analysis of DMs and to consider its implications for some current proposals concerning adverbials and negation. The framework of the analysis presupposes that grammars have a core and a periphery, and the analysis attempts to account for both relevant syntactic properties of DMs and their idiosyncratic nature by treating the extra ('spurious') modal as licensed by an extension of the mechanism that licenses adverbs. In addition, the analysis supports C. L. Baker's view that the ordering of negatives is part of the periphery by extending Baker's analysis to DM constructions.*

## 1. INTRODUCTION<sup>1</sup>

Over the past two decades, the Core Grammar framework of Chomsky & Lasnik (1977) has evolved in various ways, as the Government and Binding approach gave way to the Barriers and then the Minimalist frameworks. What has emerged is a view of linguistic theory in which Universal Grammar is seen as a small core set of general principles subject to a restricted degree of variation. However, the notion of a core presupposes a notion of periphery as well, and many aspects of grammar, perhaps even very common and robust ones, may turn out to be handled by such peripheral rules. This paper looks at a particular problem in syntactic variation, examining the syntax of the so-called double modal (hereafter DM) constructions, like *might could*. This paper argues that DMs can best be analyzed as non-core adverbial constructions.

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1 The examples in this paper are culled from the following sources: examples (7f) and (9a) are from Boertien (1986); examples (7g), (10b), (11a & b), and (9b-d) are from Di Paolo (1989); examples (7a-c) and (10a) are from Mishoe and Montgomery (1994); (7e) is reported in Feagin (1979); (7d) from Coleman (1975: 205). For brevity, the categories INFL, COMP and TENSE are represented as I, C, and T when given in tree diagram form. I am indebted to Katherine Leffel, Carole Chaski and Michael Montgomery and two anonymous *Linguistica Atlantica* referees for comments on a previous version.

### 1.1. Double modal combinations

The DM construction is used by about 20 million speakers of American English, concentrated in the Southeastern United States but extending into the west and north as well. A growing body of research exists on DM verbs from a variety of descriptive methodologies and analytic frameworks, and while a complete review of the literature is beyond the scope of this paper, a look at the list of DM combinations cited in three recent articles—Di Paolo (1989), Boertien (1986), and Mishoe & Montgomery (1994)—shows the range of DM usage.<sup>2</sup> The double modal combinations discussed by Boertien are listed in (1) below and those treated by Di Paolo in (2). The DMs are displayed here according to the first element.

- |   |  |
|---|--|
| (1) a. might could<br>might should<br>might would<br>might can<br>might ought<br>——<br>——<br>might should ought<br>might had ought<br>b. must can<br>must would<br>must ought<br>c. may can<br>may could<br>——<br>——<br>——<br>d. should ought | (2) a. might could<br>might should<br>might would<br>might can<br>might oughta<br>might better<br>might had better<br>——<br>——<br>b. musta coulda<br>——<br>——<br>c. may can<br>may could<br>may will<br>may should<br>may supposed to<br>should ought<br>d. should ought |
|---|--|

<sup>2</sup> Atwood (1953: 35) finds *might could* as far north as the German area of Pennsylvania. Baron (1989: 110) comments on its use in central Illinois. DMs have been attested as far west as Utah (Di Paolo 1989). For discussion of double modals in Scots, see Brown (1990). For the history of double modals in English and the possible development through Scots-Irish influence, see Nagle (1993, 1994), Montgomery (1989b) and Montgomery & Nagle (1994). With respect to regional variation in different parts of the South, Feagin (1979) and Turner (1981) discuss DMs in Alabama; Labov (1972: 57-9) describes DMs in Black English Vernacular in New York City and in the speech of whites in Jackson, Mississippi; Di Paolo, Boertien, and Pampell focus on DMs in Texas; Coleman (1975) and Butters (1973) examine North Carolina; Mishoe & Montgomery describe North and South Carolina usage. For a survey of the DM forms in the 8 state area covered by the *Linguistic Atlas of the Gulf States*, see Montgomery (1989a, 1989b).

_____	e.	used to could
_____, _____	f.	may used to, may need to
_____, _____	g.	might supposed to, might've used to, might woulda had oughta
_____, _____	h.	better can, would better
_____, _____	i.	could might, can might

Boertien's data are forms elicited from 5 speakers from various parts of Texas; Di Paolo's are from interviews with 62 consultants in two Texas counties and a sample of naturalistic data from Texans. In addition, Mishoe & Montgomery found the modal combinations in (3) in their North and South Carolina corpus of 236 examples of double modals from spontaneous conversation. (The numbers in parentheses indicate the number of attestations in the corpus.)

(3) DECLARATIVE	NEGATIVE	INTERROGATIVE
might could (57)	might not could (1)	Could ... might? (13)
might would (37)	might wouldn't (1)	Would ... might? (2)
might should (14)	might shouldn't (1)	Should ... might? (1)
_____	might not should (1)	
_____	might not shouldn't (1)	
might can (32)	might not can (2)	
might will (12)	_____	
might ought to (7)	_____	
_____	might will can't (1)	
_____	_____	
might better (1)	_____	
might did (1)	_____	
may can (17)	may can't (2)	
_____	may not can (1)	
may will (4)	may won't (1)	
may shall (1)	_____	
may could (3)	may couldn't (1)	
may would (5)	_____	
may should (2)	may shouldn't (1)	
may might (1)	_____	
may did (1)	may didn't (1)	
could might (2)	_____	
would might (1)	_____	
_____	must didn't (2)	
_____	can't never would (1)	
might should ought to (1)		
should might better (1)		
may might can (1)		
might should better (1)		

As Mishoe & Montgomery (1994), note the double modals tend to be used in situations when indirectness is useful—in negotiations and other

interactions where the preservation of face is important—and in syntactic contexts typical of such expressions.

Other collections of data include those of Whitley (1975) and Feagin (1979). Whitley breaks down DMs as in (4), commenting that (a) occurs throughout the South, (b) is 'perhaps less frequent than (a), [but] is more widespread than (c). (d) and (e) are progressively less common and regionally restricted.'

- (4) a. might could/would/should/better  
 b. might can/will/ought to, used to could  
 c. used to would/should, ought to could  
 d. may can/could, ought to could/should  
 e. will can, must can

Feagin (1979: 157) gives the DM combinations in (5), commenting that DMs seem to involve an implicational scale such that the DMs in (a) are most widespread and those in (e) least:

- (5) a. might could, *uset*a could  
 b. may can, might can/*otta*/better, *uset*a didn't, shouldn't *otta*  
 c. may not can, might not can, might not could  
 d. might would, may not could, *uset*a wouldn't, *uset*a did  
 e. *uset*a wasn't, *uset*a gon

## 1.2. *might could*

It is clear from the above that *might could* is the simplest and most general DM form, and I concentrate on it, looking later at variants such as *may could*, *may can* and *might can* and at other DM and triple modal forms. I assume, following Di Paolo and Boertien, that some lexical stipulation of DM combinations is required. But the questions remain what the syntax of DMs is and how their syntactic idiosyncrasies can be handled. As we shall see, some internal syntactic structure must be posited to account for their behavior with respect to inversion, negation, and tag formation. The reasoning is parallel to that by which syntactic structure is assigned to familiar idiom structures like *take advantage of*, *keep tabs on*, or *make headway on*. Thus, to derive the passive variants below, these idioms must have some internal structure that identifies *advantage*, *tabs*, and *headway* as NPs.<sup>3</sup>

<sup>3</sup> Cf. Bach (1974: 161ff.) for discussion of the passivization of these idioms. Not all idioms can be analyzed as having passivizable internal structure, however. The following examples, discussed by Katz (1973) resist passivization:

(i) John kicked the bucket.

- (6) a. Advantage was taken of Bill.  
 b. Tabs were kept on the malcontents.  
 c. Headway was made on the repairs.

The behavior of *might could* with respect to inversion, tag formation, negation, adverb placement, and the sequence of tenses shows how its subparts are accessible to structurally diagnostic syntactic processes and provides evidence about which of the two modals, *might* or *could*, is the true modal.

### 1.3. Inversion and tag formation

While there are speakers for whom question formation of *might could* is impossible, many speakers can form questions by inverting *could*, and the pattern most often reported in the literature is that illustrated below:<sup>4</sup>

- (7) a. Could you might possibly use a teller machine?  
 b. Could we might stop and get me a cheeseburger and nothing else?

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- Mary was shooting the breeze.  
 The boss laid down the law.
- (ii) The bucket was kicked by John.  
 The breeze was being shot by Mary.  
 The law was laid down by the boss.

The examples in (ii) seem to have only the literal interpretation.

<sup>4</sup> There are reports of speakers accepting inversion of both modals, as in the example *Might could he go?* (Coleman 1975: 205). Di Paolo (1989) finds inversions of *could* preferable to inversions of *might could*. The DM *might would* patterns similarly, with inversion of *would* preferred over inversion of *might would*. *Might should*, on the other hand, shows a preference for inversion of both modals rather than just *should* in Di Paolo's survey.

Many speakers find inversion of either modal to be ungrammatical, with inversion of *might* being worse than inversion of *could*. Labov (1972: 58) remarks that 'intuitions of southern speakers are very weak on this point'. Whitley (1975) also notes that his informants 'consistently gave up when asked to form a question on *he might could do that*, and winced when presented' with the sentence *Could he might do that?* My experiences are similar: college students and college graduates I have elicited judgements from find interrogatives like *Could you might ...?* awkward, but all seem to have a relative whom they've heard use such sentences. They uniformly reject *Might you could...?*

For now we focus our attention on the more common pattern in which *could* inverts but *might* doesn't.

- c. Could you might move that lamp so's I could dust under it?
- d. Could you might go?
- e. Could you might tell me where the administration building is?
- f. Could you might come over here for a minute?
- g. Heather, could you might find you a seat somewhere?

In terms of a traditional type of analysis in which a TENSE affix is inverted in questions, such examples are evidence that *could* is in construction with TENSE (and thus inverts) and *might* is not (and thus doesn't invert). Another way of putting this is that these examples suggest that *could* is the 'true' modal of the construction and *might* is a 'spurious' modal.

The formation of tag questions with *might could* also supports this analysis. Speakers I have asked reject both (8b) and (8c). Many find (8a) awkward, but much better than the (b) and (c) examples.<sup>5</sup>

- (8) a. You might could do that, couldn't you?
- b. \* You might could do that, might couldn't you?
- c. ?\* You might could do that, mightn't you?

Assuming that tag formation is a rule that affects TENSE, data such as (8) suggest that *could* is a true modal and *might* is a spurious modal. A final piece of evidence related to the status of *might* as a spurious modal is the existence of forms such as *might didn't* where the periphrastic auxiliary occurs.

Related to the idea that one of the parts of a DM is the true modal and the other is a spurious modal is whether or not DMs should be treated as a having internal syntactic structure. The inversion and tag facts suggest that they should. A further relevant datum is that parentheticals and adverbs can intervene between *might* and *could*:

- (9) a. John might, I think, could do that.
- b. I might just couldn't see it.
- c. I've seen ones that might possibly could be flowers but I haven't seen any yet [that are flowers].
- d. You might still could keep the cuff [the way it is] and have French cuffs [on the blouse].

Contrast the lexical idiom *have to* which does not permit an intermediate adverb, e.g., *I still have to go* v. *\*I have still to go*.

<sup>5</sup> According to Boertien (1986), all second position modals can be copied in tags except those in for *might would, must can* and *must ought*. In addition, he remarks that only one of the five speakers he interviewed fully accepts tag formation with *might* (another marginally accepts it), while four of the five speakers accepted tag formation with *could*.

## 1.4. Negation and the sequence of tenses

So far it appears that *might* behaves rather unlike a modal. However, the distribution of *not* in DM constructions points to modal-like behavior of *might*. In the *might could* combination the negative adverb often occurs positioned to the right of *might* rather than *could*. Given the usual distribution of *not* and *n't* after the tensed auxiliary, such data as (10) appear to contradict inversion and tag diagnostics:

- (10) a. They *might not could* have gone over the state line to get her.  
 b. I don't hear too well ... I thought maybe I better put it [her hearing aid] on (or) I *might not could* understand you, so ...

However, examples like (11) in which the negative follows *could* are also possible.<sup>6</sup>

- (11) a. I was afraid you *might couldn't* find this address.  
 b. You better speak up or they *might could not* understand you.

Apparently, for negative placement either *might* or *could* seems to count as a tensed auxiliary.

Di Paolo (1989) stresses two further points about *might could* which are relevant to the analysis to be developed below. First she suggests that 'tense-matched doubled modals are somewhat preferred to tense-mixed ones, though both are acceptable in many contexts.' By tense-matched double modals she means the combinations *might could* and *may can*, where both modals are either morphologically past tense or present tense, in contrast to mixed pairs like *might can* and *may could*. In a sentence correction task in which subjects were presented with *may could* forms and asked to produce corrections where necessary, 34.7% of the total mismatched responses were corrected to matched ones. Di Paolo remarks that given 'that informants had to do very little in order to agree to *may could* relative to the effort it took to produce corrections to the sentences presented to them, then the large number of corrections provide evidence that tense-matched forms are more acceptable than tense-mixed forms.'

In addition she notes that the past tense form of *might* in *might could* is favored in sentence correction tasks in the same way that the single modal *might* is favored over *may*. So, for example, in a sentence like *It scared him*

<sup>6</sup> Also attested are forms with negation on both modals, such as *He might not couldn't refuse*. Given the meaning of this form (*He probably couldn't refuse*), the most likely analysis is one involving an agreement process of some sort. See below.

because he *might/may could've been killed*, the status of *might* is essentially parallel to its status in an example like *It scared him because he might/may've been killed*. She takes this as further evidence that 'both modals of a DM figure in tense specification' and that 'tense can iterate within a clause.' As with negation and tense matching, the accessibility of the first modal to the sequence-of-tense rule weakens the possible claim that *could* is the only true modal (i.e., in construction with TENSE). Instead we are presented with an interesting analytic puzzle: how can both *might* and *could* be tensed in the same clause, given the usual assumption that there is at most one tensed verb per clause? We shall return to this below.

We thus find three relevant generalizations about the syntactic behavior of the elements of *might could*:

- (12) *might* behaves like a modal with respect to negation and sequence of tenses.
- (13) *might* does not behave like a modal with respect to inversion and tag formation; *could* does.
- (14) *might could* does not behave like a single lexical item modal with respect to adverb placement, tags, and questions.

## 2. THE ANALYSIS OF MIGHT COULD

How can we encode the syntactic properties of *might could* just discussed? One possibility, suggested by Labov (1972: 59), is to view the *might* in *might could* as an adverb. The most theoretically conservative analysis of *might could* would be that *might* is categorially an adverb and that *might could* is essentially parallel to *possibly could* or *maybe could*, with the structure ADV M. As noted, the advantage of this approach is that the status of *could* as a true auxiliary for inversion and tags follows automatically; the main disadvantage is that the negation facts are anomalous if *might* is treated as an adverb and it is difficult to deal with the sequence of tenses phenomenon. There are other disadvantages to the adverb approach as well. It would have to be stipulated that the adverb *might* is not generally transportable, since *could might* is rare, at best.<sup>7</sup> In addition, it would have to be stipulated that adverbial *might* cannot modify infinitives like *to be able*:

- (15) a. I expect that we might could get you one by Friday.
- b. \* I expect us to might be able to get you one by Friday.

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<sup>7</sup> The forms *could might* and *can might* are cited by Di Paolo as occurring just once in her data. Mishoe & Montgomery have two citations of *could might*.



- c. I expect that we maybe could get you one by Friday.
- d. I expect us to maybe be able to get you one by Friday.

Despite the technical difficulties that arise in claiming that spurious *might* is literally an adverb, Labov's idea has the conceptual advantage of allowing *might* to be treated as something other than the true modal of a tensed clause. To preserve this advantage, while at the same time accommodating the partial modal behavior of *might*, I suggest treating spurious *might* as a defective modal form which modifies the head modal *could*—an adverbial rather than an adverb.

How would such an analysis work? To better understand this, we turn to the problem of selecting particular types of adverbial, drawing on work by Travis (1988).

### 2.1. The licensing of adverbs

In the general framework of Chomsky (1986a), all elements of Phonological Form and Logical Form must be appropriately licensed. Travis notes that while maximal projections ( $X''$  categories) are licensed by such mechanisms as thematic-role assignment or predication, much less is said about the licensing of lexical modifiers like adverbs and she proposes a type of licensing specifically for lexical categories ( $X^\circ$  categories). In her view such Head Feature Licensing (HFL) is selection by which designated features of the heads of IP and VP license the adverbs which modify those categories.<sup>8</sup>

Travis reviews the facts of adverb distribution presented by Jackendoff (1972), distinguishing six classes of adverbs. These are presented below, where initial position refers to the beginning of a sentence (IP initial in current terminology), AUX position refers to the position before or after the

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<sup>8</sup> Travis provides some additional conceptual motivation for HFL in terms of the idea that adverbs are 'defective' categories. By this she means that, unlike categories licensed by theta-marking or by predication, adverbs need not project to a phrasal category. If defectiveness in this sense is a criterion of HFL, then spurious *might* meets it as well: it need not, and perhaps cannot project to a phrasal category (but cf. Ruhl & Hines 1982).

Possibly HFL could also be used to describe the distribution of reflexive adverbials, with such adverbials licensed by AGR:

- (i) Mary herself often chairs the meeting.
- Mary often chairs the meeting herself.

If so, this raises the question of whether emphatic reflexives are defective categories as well.

first auxiliary (the INFL element), VP-initial position refers to the beginning of the VP, and VP-final position refers to the end of the sentence without a comma-like pause; note that AUX position and VP-position conflate when no auxiliary verb is present.

- (16) a. Type 1 adverbs (like *cleverly*) occur in initial, AUX, VP-initial and, with a different meaning, in VP-final position.  
 b. Type 2 adverbs (like *quickly*) occur in initial, AUX, VP-initial and VP-final position (with no meaning change).  
 c. Type 3 adverbs (like *evidently*) occur in initial and AUX position.  
 d. Type 4 adverbs (like *completely*) occur in VP-initial and VP-final position.  
 e. Type 5 adverbs (like *hard*) occur in VP-final position only.  
 f. Type 6 adverbs (like *merely*) occur in AUX position only.

Travis further subdivides two of these classes. She argues that there are differences of interpretation in the type 1 and 2 adverbs depending on whether adverbs occur before or after the auxiliary element. Consider a type 1 adverb like *reluctantly*:

- (17) a. The bankers *reluctantly* were arrested by the police.  
 b. The bankers were *reluctantly* arrested by the police.

In (17a), *reluctantly* refers to the bankers, while in (17b), it refers to the police, the thematic agent of the verb. Travis suggests that Type 1 adverbs can be subject-sensitive or agent-sensitive depending on position.

- (18) a. Type 1a adverbs occur in initial and AUX position modifying the subject.  
 b. Type 1b adverbs occur in VP-initial and in VP-final position modifying the agent.

She argues for a similar bifurcation of type 2 adverbs, according to whether they modify an event or a process.

- (19) a. Type 2a adverbs occur in initial and AUX position modifying the event.  
 b. Type 2b adverbs occur in VP-initial and in VP-final position modifying the process.

She notes that the data are more subtle here:

- (20) a. John *quickly* was arrested by the police.  
 b. John was *quickly* arrested by the police.

Taking this modified adverb classification as a point of departure, and focusing on types 1-4, Travis argues that different types of HFL capture

adverb typology, addressing questions of distribution, sequence, and interpretation of adverbs. She suggests that features of INFL (specifically the *Event* and *Agreement* features) license IP adverbs—types 1a, 2a, and 3—while features of V (the *Manner* and *Agent* features) license VP adverbs—types 1b, 2b, and 4. IP adverbs modify the entire clause, in some cases indicating the characteristics of the subject and in others indicating characteristics of predication. VP adverbs modify the verb phrase only, but can indicate characteristics of the subject since, in Travis's system, they are licensed by the thematic role feature for Agent (which is assigned by the verb). Other adverbs will indicate characteristics of the action since they are licensed by the manner features of the verb. These differences are summarized in (21) and (22):

## (21) IP adverbs

- a. *reluctantly, cleverly, clumsily, unwillingly, ...* are licensed by AGR features of INFL (e.g., *Management reluctantly will curtail spending*).
- b. *evidently, probably, unbelievably, ...* are licensed by Event features of INFL (e.g., *Management evidently will curtail spending*).

## (22) VP adverbs

- a. *reluctantly, cleverly, clumsily, unwillingly, ...* are licensed by Agent features of V (e.g., *Management will reluctantly curtail spending*).
- b. *completely, easily, totally, ...* are licensed by Manner features of V (e.g., *Management will easily curtail spending*).

Travis suggests that for types 1-4, adverbs licensed by a head will appear freely in a head's maximal projection. She also notes that the ordering of IP adverbs like *evidently* and VP adverbs like *totally* follows:

- (23) a. They *evidently totally* forgot about the meeting.
- b. \* They *totally evidently* forgot about the meeting.

Travis's analysis can be easily extended to handle the licensing of *might* by *could*. Like an adverb, spurious *might* is a lexical modifier of INFL and, given this, an extension of HFL could be used to license its occurrence. For *could* to license *might* a lexico-syntactic stipulation having the content (24) would be needed:

- (24) The Event feature of [<sub>I</sub> *could*] licenses [<sub>M</sub> *might*].

Rule (24) would be parallel to the content of the rule licensing adverbs:

- (25) The Event feature of INFL licenses [<sub>ADV</sub> *evidently, ...*].

The more specific character of (24), mentioning the licenser *could*, reflects its more marginal nature.<sup>9</sup> As Chomsky and others have suggested (cf. Chomsky & Lasnik (1977), Koster (1978), Hirschbühler & Rivero (1981), Lasnik (1990), Baker (1991) and others), rules of the periphery may be relaxations or extensions of core properties. The difference between rule (25), which is relatively general and could ultimately be stated in terms of an appropriate semantic categorization of adverbs, and rule (24) may then reflect the difference between the core and the periphery. The core versions of HFL rules would specify that adverb classes are licensed in certain categories, while the peripheral versions would designate particular lexical items.

An advantage of such an analysis is that the difference between varieties of English with *might could* and those without *might could* is a minimal one, stated in terms of a lexical rule selecting *might* as a modifier of *could*.<sup>10</sup>

## 2.2. Positioning

One issue that remains to be dealt with is the issue of the positioning of *might*. In Travis's system, adverbs licensed by HFL in IP should occur in various IP positions, since licensing does not specify a site. Given this, we need to ask why the distribution of *might* is not much freer than it is.

There are two relevant factors: that *might* does not occur finally or initially in a clause (apart from some interrogatives to be discussed later); and that *might* consistently occurs to the left of *could*. With respect to the first, note that the distribution of *might* actually seems to parallel the class of adverbs that Travis analyzes as only occurring in IP—adverbs like *merely*, *virtually*, *truly*.<sup>11</sup> So, some mechanism must be available to handle

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<sup>9</sup> For convenience, I shall assume that the Event feature is present in modals and that this is the licenser, parallel to Travis's treatment of IP adverbs; this is not the only possibility of course.

<sup>10</sup> DMs in Scots, which have somewhat different syntactic properties, may be a different sort of construction entirely and treated by a distinct mechanism. See Brown (1990).

<sup>11</sup> Travis notes the parallel between adverbs like *merely* and adjectives like *mere*, suggesting that the same principles might be involved with nominal and verbal modifiers. One possibility is the approach of Ernst (1989), who discusses a cross-linguistic tendency for specifiers and adverbs to occur to the left of the head in both Object-Verb and Verb-Object languages. See also Ernst (1990).

non-transportability, though Travis does not develop this for her type 6 adverbs.

With respect to the positioning of *might* to the left of *could*, Nagle (1994) suggests that this might be accounted for in terms of the distinction between speaker-oriented and subject-oriented adverbials (delineated by Jackendoff 1972) or in terms of the semantically parallel epistemic versus root modal distinction. Jackendoff's observation that speaker-oriented adverbs have scope over subject-oriented ones, illustrated below,

- (26) a. Evidently Max carefully was climbing the walls of the garden.  
 b. \* Carefully Max evidently was climbing the walls of the garden.

might be extended to the relation between two modals in a phrase.

Nagle suggests that since *might* is an epistemic possibility modal (i.e., one that reflects speaker's knowledge), the 'tendency for speaker-oriented adverbials and wider scope auxiliaries to occur to the left would motivate the roughly *epistemic + root* ordering' of *might could*. Though not entirely clear what the technical execution of this ordering restriction would be, the suggestion that the ordering of the adverbial and the modal follows from a (possibly grammaticalized) semantic ordering tendency seems plausible. However, the issue is not entirely straightforward. Instances in which *could* is inverted in a question provide a problem for this explanation. If a semantic or scope restriction requires that epistemic modals precede root modals, then some additional explanation is required for the question facts.<sup>12</sup>

Another potential problem is the fact that *maybe*, which parallels *might* in some respects (see below) and is presumably an epistemic element, is not restricted to the left of *could*. The following example, self-observed by Catherine Rudin, illustrates a fairly common placement of *might*.

- (27) I could maybe write a cover note.

The most accurate description seems to be to extend the peripheral HFL rules to designate that *might* occurs in T to the left of *could*:

- (28) The Event feature of [<sub>T</sub> *could*] licenses [<sub>M</sub> *might*] in the context:  
 [<sub>T</sub> \_\_\_\_\_ ...]

While this may appear to be somewhat stipulative, it may in fact be desirable in general to require that HFL licenses adverbs in a designated position rather than freely in a projection. One way of doing this is to retain

<sup>12</sup> In addition, it is not entirely clear that all examples of DM have an epistemic plus root characterization. Cf. Di Paolo (1989) for discussion.

the notion of ADV transportability (posited in Keyser 1968). If we assume that HFL typically licenses ADVs in a designated position (say to the left or right a licenser), then it would suffice to say that *might* is non-transportable (presumably because its category status is that of a modal rather than an adverb). Retaining a transportability convention would also provide a mechanism for accounting for ADVs like *merely* which Travis's proposal doesn't handle well.

The idea of a default position for the realization of elements licensed by HFL would also address two apparently problematic aspects of Travis's approach. Her discussion of the semantic distinction between type 1a/1b and 2a/2b adverbs relies on a distinction between pre-INFL and post-INFL adverbs, yet her free order proposal should allow IP adverbs to occur after INFL as well as before, making such examples as *The bankers were reluctantly arrested by the police* ambiguous. In addition, the free order idea predicts that IP adverbs should occur sentence-finally. But this is not reflected in the typology she adopts, and type 3 adverbs will be especially problematic, since examples like *Horatio has lost his mind evidently* (without a comma-pause) are usually considered ungrammatical (cf. Jackendoff 1972: 50). So there is some apparent merit to modifying the HFL approach to designate the positioning and transportability of different classes of adverbs.

### 2.3. INVERSION OF MIGHT

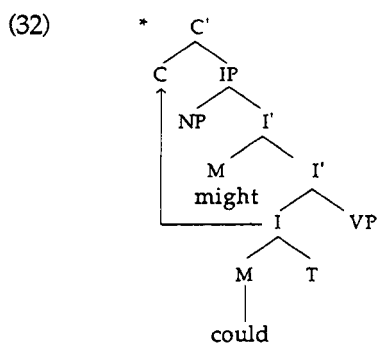
The approach developed here also has some interesting consequences for the treatment of yes/no questions in DM sentences: recall that the pattern usually reported in the literature is that in (29), which I will call PATTERN I. However, some speakers reportedly create yes/no questions by inverting both modals, as in (30). I will call this PATTERN II. And other speakers reject both options, preferring to form yes/no questions with a near paraphrase like (31); we can call this PATTERN III.

- (29) Could you might buy that at Bruno's?  
 (30) Might could you buy that at Bruno's?  
 (31) Could you maybe buy that at Bruno's?

PATTERN I is most easily handled. The typical assumption concerning subject-auxiliary inversion is that it involves movement of the contents of INFL to COMP. Given this, PATTERN I is the expected situation, if *could* but not *might* is in INFL. PATTERN II is more difficult to reconcile, as is desirable given its marginal status. While it might be tempting to try treat this

as a case in which *might* is somehow moved into INFL along with *could*, such an analysis does not seem possible if we assume (with Chomsky 1986b: 4) that movement of a lexical category must be from the head of one category to the head of another (head-to-head movement). Since *might* is a modifier rather than a head, tandem movement should be precluded. An alternative explanation is that *might* is licensed by HFL from the occurrence of *could* in COMP rather than INFL. This would entail that *might* is base-generated as a modifier to COMP (and that HFL is checked after movement to COMP).<sup>13</sup>

What about PATTERN III, where movement from the D-structure (32) is precluded?

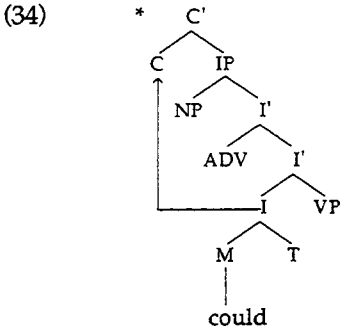


This does not seem hard to explain. Resistance to inversion is fairly typical for modals cooccurring with sentential adverbs. As Jackendoff (1972: 84-7, 102-3) has noted, inversion is impossible when certain adverbs are present:

- (33) a. \* Could she probably give me the answer?  
 b. \* Could she evidently give me the answer?  
 c. \* Could she certainly give me the answer?  
 d. \* Could she apparently give me the answer?  
 e. \* Could she unbelievably give me the answer?

(33) reflects the movement shown in diagram (34), parallel to (32):

<sup>13</sup> Another way of stating this would be that *could* can 'transmit' the relevant head feature to COMP after inversion, allowing COMP to license *might*. Speakers who accept PATTERN II would have this transmission option; speakers who do not accept PATTERN II, wouldn't.



It is not obvious *why* inversion is precluded in such structures. Jackendoff (1972: 87) proposes simply that inversion introduces 'some semantic factor not present in noninverted forms, and this factor would be incompatible with the reading of S adverbs,' while Travis suggests that the difficulty may be related to adverb scope, speculating that subject-oriented adverbs and epistemic modals have scope determined by percolation of an index up their maximal projection (cf. Williams 1984) and that such elements may not be able to receive an interpretation if INFL is empty (as is the case when inversion occurs).

One thing that is noteworthy is that PATTERN III speakers sometimes give paraphrases for *might could* like (35a) which is typical in the informal speech of a number of Southern speakers I have observed and queried. Its meaning is parallel to that of example (35b).

- (35) a. Could you maybe give me the answer tomorrow?  
 b. Could you possibly give me the answer tomorrow?

It may be that the relative acceptability of (35a & b) versus (33a-e) relates to the fact that *maybe* and *possibly* are semantically weaker—less definitive—than *probably*, *evidently*, *certainly*, *apparently*, and *unbelievably*, though it is not obvious how to encode this structurally.<sup>14</sup>

#### 2.4. The distribution of *not*

We are now in a position to delve further into the placement rules affecting auxiliary verbs and the negative adverb *not*. C. L. Baker (1991) has argued that the positioning of auxiliaries with respect to adverbs is a good candidate for a noncore rule and he suggests that this auxiliary placement

<sup>14</sup> Another possibility is that the adverb follows INFL underlyingly, i.e., that the source of the examples are *You could maybe give me the answer tomorrow.* and *You could possibly give me the answer tomorrow.*





view, reapplication of the shift rule would not be prevented, but it would not be required. Another desirable consequence of stating this as a condition on *not* rather than in terms of obligatory rule application is that it would allow the same rule of the periphery to be used to shift tensed auxiliaries around all adverbs, eliminating the need for separate rules to front auxiliaries over *not* and over other adverbs.

The question that now arises is of course this: how can *might* count as a tensed auxiliary for purposes of the negative rule but not for purposes of inversion (movement to COMP)? One solution is assume that *tense* is both a morphological feature of forms ([tense]) and a morpheme (TENSE)—both a morphologically relevant notion and a syntactically relevant one. [tense] would be a feature present in the lexicon and inhering in all modals, while TENSE would be a morpheme serving as the head of IP. While this overlap between TENSE and [tense] may at first seem redundant, it actually turns out to be quite useful, allowing some rules to involve a syntactic category TENSE while other rules refer instead to a feature.<sup>17</sup>

Rules referring to TENSE include inversion (movement to COMP) and tag question formation, which operate on an auxiliary verb in a particular syntactic position. Baker's 'auxiliary' fronting rule, on the other hand, would refer to the feature [tense] in an auxiliary verb and thus would have greater flexibility in DM constructions. Another process that would involve the feature [tense] would be the sequence-of-tenses process that affects spurious *might*. Assuming that Di Paolo's characterization of both modals being involved in tense selection is correct, then the possibility that *might* carries a [tense] feature even though it is not in INFL provides a natural way of stating such selection constraints, and the selection facts provide additional support for the bifurcation of tense into separate syntactic and morphological categories.

### 3. EXTENDING THE HFL ANALYSIS

Let us turn to some of the other DM structures in (1)-(5) above to see how other DMs and triple modals can be treated in terms of HFL. Thus far, I

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for the positioning of *not* entirely with filters, under the assumption that the negative element is transportable. This might eliminate the need for a rule shifting the verb. Since filters are part of the periphery, the status of negation would be the same as in Baker's approach.

<sup>17</sup> The fact that some adverbs have temporal features seems uncontroversial: cf. items like *yesterday*, *tomorrow*, *previously*, *soon*, etc.

have suggested treating *might could* as a noncore construction in the sense of Chomsky & Lasnik (1977) and that the dialects in which spurious *might* occurs contain lexical stipulations that other dialects lack. This approach can be extended to other DM constructions as well. HFL rules can be formulated to license the DM combinations beginning with *may* and *must*:<sup>18</sup>

- (40) a.    *may can*  
          *may will*  
          *may could*  
          *may should*
- b.    *must can*  
          *must would*  
          *musta coulda*

HFL can also handle constructions like *useta could*, *useta would*, *useta didn't*, which only occur with the past tense modal forms, by stipulating that the feature Past in INFL licenses *useta*.<sup>19</sup> In addition, all of the combinations *might should*, *might would*, and *might can* could be licensed via a single HFL rule like (41):

- (41)       The Event feature of a Modal licenses [<sub>M</sub> *might*].

This of course would require some mechanism to block *\*might might*, *\*might may*, *\*might shall*, and other nonoccurring combinations. While (41) would be the formally simplest approach, the actual facts of DM usage, which involve usage preferences for some DM constructions (like *might could*) over others, might be better handled by a battery of HFL rules. Space limitations preclude listing HFL rules for all of the combinations in (1)-(5), and it would not be especially illuminating for us to do so, since the form of such rules is clear and since some of the combinations may be *hapax legomena* rather than productive forms. In fact, Mishoe & Montgomery (1994) have suggested that a number of DM forms may be spontaneous usages rather than permanent parts of a speaker's lexicon. An approach that generates these forms syntactically, via rules of the periphery, rather than listing them lexically may be of some value in accounting for this since spontaneous forms could be construed as *ad hoc* analogical extensions of HFL rules.

<sup>18</sup> To account for forms like *She still might don't even like the thing* (cf. (3) as well as Labov 1972: 57-9), *do* would need to be added to the class which licenses the spurious modal.

<sup>19</sup> For some speakers *useta* can function as an S-initial adverb. The sentences in (i) below are from a conversation I had with a Birmingham, Alabama, native in his sixties:

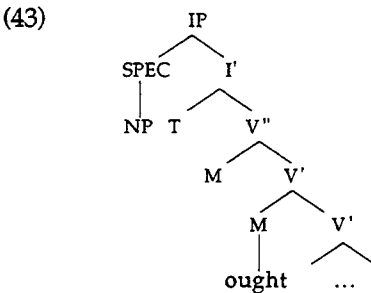
- (i)       *Useta you could deduct that.*  
          *Useta there would be an advantage doing it that way.*

### 3.1. *ought*

I do want to provide some illustration of the extension of HFL to more complicated forms by discussing *ought*. HFL provides a possible approach to the puzzling behavior of this modal element, which allows negation but seems to resist inversion in American English:

- (42) a. I ought to buy a new car.  
 b. \* Ought I (to) buy a new car?  
 c. \* Oughtn't we get going?  
 d. I ought (to) not buy that kind anymore.  
 e. ? I oughtn't (to) buy that kind anymore.

Putting aside the distribution of *to*, the contrast between (42b & c) and the other examples might be treated by analyzing this structure as one in which *ought*, a [+tense] modal, is not in INFL. One option is that it occurs in V", before the perfective and progressive auxiliaries but after TENSE.



Inversion of *ought* will be precluded since *ought* is not in construction with TENSE. Given the treatment of negation adopted above, (42d) will be possible. The status of (42e) will depend on the applicability of negative contraction to [+tense] modals, as opposed to those in construction with TENSE.<sup>20</sup>

<sup>20</sup> The phrase *had better/had best* seems to pattern similarly:

- (i) a. I had better buy a new car.  
 b. \* Had I better buy a new car?  
 c. I had better not buy that kind anymore.  
 d. ? I hadn't better buy that kind anymore.  
 e. Hadn't we better get going?
- (ii) a. I better buy a new car.  
 b. \* Better I buy a new car?  
 c. I better not buy that kind anymore.

Such a structure for *ought* raises the obvious question of how TENSE can be stranded. Since Chomsky (1957) it has been generally assumed that this is impossible. Given that *ought* is inherently [+tense], perhaps it creates the conditions for an exception to the usual nonstrandability of TENSE. Another possibility is to posit a D-structure with the modal *should* preceding *ought* and stipulate deletion of *should*, yielding (43) (or a structure like (43) lacking TENSE altogether).<sup>21</sup>

Assuming this is on the right track, what can we say about constructions like *should ought* and *might ought*? These can be analyzed as instances in which *should* and *might* are true modals preceding *ought*. This is consistent with the examples in (44a-b) reported by Boertien, and (44c), which I overheard at a faculty meeting:<sup>22</sup>

- (44) a. Mightn't we oughta do that?  
 b. I shouldn't oughta do that, should I?  
 c. Might you ought to contact him?

In addition, Boertien reports that the speakers who accepted *should ought* also accepted inversion of *should* but not of *ought* or *should ought*; no speakers accepted inversion of *ought* after *might*, though one did permit inversion of *might ought*. This suggests the paradigm:

- (45) a. \* Oughta you should contact him?  
 b. \* Should oughta you contact him?  
 c. \* Oughta you might contact him?  
 d. ? Might oughta you contact him?

The triple modal *might should ought* seems to behave like *should ought* with a peripheral *might* licensed by *should*. In this construction, the medial modal would be the true one.<sup>23</sup>

<sup>21</sup> Perhaps the deletion could somehow be related to deletions in examples like *You've got a ticket, (haven't you/don't you)*. The usage *didn't ought to* follows naturally enough, given the usual appearance of *do* before the negative. Note that if we assume that modals are generally possible with *ought*, we should expect to also find *would ought* and *could ought*. Nonoccurrence of these forms must be for now stipulated.

<sup>22</sup> Boertien (1986) reports that *Might ought you to've done that?* was accepted by one speaker and he suggests that perhaps *might ought* is ambiguous between a structure where it is a lexical idiom and one where *might* is the true modal. Coleman (1975: 205) also reports *Might shouldn't he ought to go?*

<sup>23</sup> It seems likely that we would want to analyze *might had ought* as combining *might* and *had ought*. The problem then becomes that of analyzing *had*

### 3.2. *mighta coulda and musta coulda*

There is a final twist that requires comment. Examples like *mighta coulda* and *musta coulda*, with apparent doubling of contracted *have*, are not uncommon. The question that arises is whether such examples suggest a two-clause source for (some) DMs in order to provide two occurrences of the perfective auxiliary. If so, the derivation of *mighta coulda* would be something like (46), involving a rule joining two clauses.<sup>24</sup>

- (46)      [you *might have* [ PRO *could have* bought that at Bruno's ]]  
             └───────────┘  
             [you *might have could have* bought that at Bruno's ]  
             └───────────┘  
             [you *mighta coulda* bought that at Bruno's ]

One option for preserving a single clause analysis of DMs is to analyze *mighta coulda* as a reflex of agreement.<sup>25</sup> We have already suggested an optional agreement relation between *could* and *might* to handle tense-matching. If we assume that contraction of perfective *have* to *could* assigns the feature [+perf] then agreement might carry this feature (and its realization as *-a*) to *might*. However contraction is not a strict requirement of doubled *have*: Montgomery (1989a, 1989b) cites three occurrences of *might have could have* in the *Linguistic Atlas of the Gulf States* data and two occurrences of *might have would have*.<sup>26</sup> A further 'uncontraction' rule seems clearly undesirable, so accounting for these instances remains

*ought*. *Had ought* seems to pattern like *might ought* and *should ought* in some respects:

- (i) a. I had ought to buy a new car.  
       b. \* Had I ought to buy a new car?  
       c. Hadn't we ought to get going?  
       d. \* I had ought to buy a new car, hadn't I?  
       e. \* I hadn't ought to do that, had I?

What is especially curious is the contrast between (i) b and c. More investigation of this puzzling construction is needed.

<sup>24</sup> See Nagle (1991) for an approach in this spirit, which is similar to the clause restructuring approach of Rizzi (1978) and the clause union rules of relational grammar.

<sup>25</sup> Nagle (1991) gives the examples *He mighta didn't do it*, and I have also heard *You musta didn't space it correctly*. It may be possible to analyze such forms as involving lexicalized *mighta* and *musta* (licensed by *do*).

<sup>26</sup> Montgomery (1989a, 1989b) also cites one example of *might have could* and three occurrences of *might have used to*.

problematic unless we are willing to analyze the full form of the first occurrence of *have* as a reflex of agreement or to consider them extragrammatical.

#### 4. CONCLUSION

The analysis of double modals that emerges in this paper is noteworthy in three respects, I believe. The facts of DM syntax argue for treatment of negative placement as part of the periphery, supporting a modified version of Baker's analysis. In addition, the analysis also raises some new ideas about the syntax of the verb system—specifically that spurious modals have morphological (but not syntactic) tense and that this feature may be sensitive to agreement rules and negative placement. Finally, it attempts to account for both the syntactic properties of DMs and their idiosyncratic nature by treating them as ordinary syntactic elements licensed by peripheral rules of HFL, an approach which avoids problems that arise in treating the extra modal as an adverb or in treating *might could* as a lexical idiom.

The syntax of the DM construction is particularly noteworthy in this last respect—that it fits into the periphery as opposed to the core. The core rules of adverb licensing would be HFL rules allowing adverbs to occur in designated categories and positions. Rules licensing DMs would be relaxations or extensions of this core in that they designate specific lexical items as the licenser.

The DM construction may also, ultimately, have something to say about the limits of the periphery. It is possible, and even likely, that certain of the *hapax legomena* in the DM corpora should not be handled by either the core or the periphery. Such attested but extragrammatical forms would still require some sort of explanation, but not necessarily one that follows from grammar alone. It is possible too that aspects of the data (such as the preference for some types of negation) may be determined by extragrammatical factors. If so, the double modal construction will be doubly interesting, providing a testing ground both for the role of the periphery in accounting for dialect differences and for the limits of formal grammar in accounting for actual usage.

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