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Double Modal Syntactic Patterns as Single Modal Interactions

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Abstract
Double modal constructions (DMCs) such as 'I might could get it for you' are employed by speakers of Southern American and African American English. These constructions appear to counter-exemplify traditional analyses of English modal structure which typically (i) allow only one tensed element per clause and (ii) locate modal auxiliaries only in the tensed position. Previous analyses have attempted to account for these structures by treating DMs as single lexical units (Di Paolo, 1989), or by treating one of the two modals as a "non-modal" (Turner, 1981; Battistella, 1995; Marrano, 1998; Van Gelderen, 2003). Di Paolo's lexicalist analysis is contraindicated by the separability of the constituent modals, while the others are contradicted by the modals' tense-like behavior. Following observations in McDowell (1987), we claim that 'might,' 'may,' and 'must' (in their epistemic readings) are sentential polarity operators (P-modals). P-modals head a POLP (Cormack and Smith, 2002), must raise at LF to take scope over the proposition, and may also bear Tense (in which case they move to T at LF). V-modals (i.e., all other modals) head VP and behave as AUX verbs, moving to T overtly when they bear Tense. Under this account, both modals in the DMC can be analyzed as true modals, behaving exactly as they would in a single modal construction. They are, at the same time, syntactically distinct, and the properties of the DMC result from the interactions between these two modal types.

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Minta Elsman and Stanley Dubinsky*

1 Introduction

Double modal constructions (DMCs) such as *I might could get it for you* are employed by speakers of Southern American and African American English. These constructions appear to counter-exemplify traditional analyses of English modal structure which typically (i) allow only one tensed element per clause and (ii) locate modal auxiliaries only in the tensed position. Previous analyses have attempted to account for these structures by treating DMs as single lexical units (Di Paolo 1989), or by treating one of the two modals as a "non-modal" (Turner, 1981; Battistella, 1995; Marrano, 1998; Van Gelderen, 2003). Di Paolo's lexicalist analysis is contraindicated by the separability of the constituent modals, while the others are contradicted by the modals' tense-like behavior. Following observations in McDowell (1987), we claim that *might*, *may*, and *must* (in their epistemic readings) are sentential polarity operators (P-modals). P-modals head a POLP (Cormack and Smith, 2002), must raise at LF to take scope over the proposition, and may also bear tense (in which case they move to T at LF). V-modals (i.e., all other modals) head VP and behave as AUX verbs, moving to T overtly when they bear tense. Under this account, both modals in the DMC can be analyzed as true modals, behaving exactly as they would in a single modal construction. They are, at the same time, syntactically distinct, and the properties of the DMC result from the interactions between these two modal types.

2 Description of DMC Data and Previous Accounts

In non-Standard Southern American and African American varieties of English, DMCs such as (1a) are found alongside standard single modal constructions (SMCs) such as (1b).

(1) a. We **might should** go in. (Mishoe, 1991:68)
b. We **should** go in.

The semantic interpretation of these constructions is generally described (Butters, 1973; Turner, 1981; Nagle, 1994) as one in which the first modal expresses an epistemic meaning (e.g. possibility, probability, or (un)certainty), while the second conveys a root meaning (e.g. ability, volition, permission, obligation, or advisability), as in (2) below:

(2) a. Brian **might can** visit her.
'It is **possible** that Brian **is able** to visit her.' (Turner, 1981:30)
b. He **must wouldn't** steal. (Boertien, 1986:298)
'**Certainly** he doesn't have the **inclination** to steal.'
c. You **may should** go to the dentist if it's really bothering you. (Mishoe, 1991:76)
'**Maybe** it's a **good idea** for you to go to the dentist…'

While the semantic interpretations of DMCs are largely uncontroversial, their syntax has been debated for some time and subjected to a variety of analyses.

Traditional analyses of English modal structure assume that modals are always tensed, due their lack of nonfinite forms (3a) and their complementary distribution with tense markers (3b). Since English allows only one tensed element per clause, only one of the modals in (1a) can bear tense.

(3) a. *Abelard seems **to should** work harder.
b. Abelard **should** work(***s**) harder.

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Previous analyses of DMCs thus argue either that they involve one "true" tensed modal and one untensed, non-modal element, or that the entire DM bears tense as a single unit. However, these analyses cannot explain the distribution of the modals in (4-8).

(4) Aspectual Agreement:
  a. He **may could** have been killed.
  b. He **might could**a been killed.
  c. *He **might can**'ve been killed.
  d. *He **may can** have been killed. (Di Paolo, 1989:211)

(5) Aspectual Affixation:
  a. We **might could've** overlooked something. (Mishoe, 1991:80)
  b. He **mighta should've** gotten home by now. (Di Paolo, 1989:217)
  c. *She **mighta could** done it.

(6) Distribution of Negation
  a. I was afraid you **might couldn't** find it [this address].
  b. He **might not couldn't** refuse.
  c. I thought maybe I better put it [hearing aid] on (or) I **might not could** understand you. (Di Paolo, 1989, 216-217)

(7) Subject-Auxiliary Inversion (SAI):
  a. **Should** we **might** cancel the trip*?* (Mishoe, 1991:72)
  b. **Might can** you do this later? (Boertien, 1986:298)
  c. ***Might** you **could**…? (Battistella, 1995:23)

(8) Placement of Sentential Adverbs:
  a. You **might could possibly** help me, I don't know. (Mishoe, 1991:72)
  b. I've seen ones that **might possibly could** be flowers… (Di Paolo, 1989:205)

Marrano (1998) and van Gelderen (2003) claim that the first modal bears tense while the second is a "bare infinitive." This is contradicted by the second modal's ability to participate independently in the tense-related processes shown in (4a), (5a), (6a), and (7a). In other accounts, the second modal is said to bear tense, while the first modal is taken to be either an untensed "modal determiner" (Turner, 1981) or an adverbial adjunct (Battistella, 1995). This is counterexemplified by both the first modal's ability to independently precede negation (6c) and sentential adverbs (8b). Finally, DiPaolo (1989) proposes that the entire DM is a single, tense-bearing unit. But this is challenged by the separability of the modals in (6c, 7a, 8b). The data in (4–8), taken altogether, present a picture not heretofore observed in any previous analysis, and clearly reveal the precise constraints on the application of tense-related processes to the constituent modals. What these data show is that such processes apply either to the second modal alone (4a–7a), or to the first and second modal together (4–7b), but not to the first modal alone, with the exception of the placement of negation (6c) and sentential adverbs (8b). In the following sections, we present an analysis that accounts for these data.

3 Epistemic/Non-epistemic Modals and the Projection PolP

In explaining the asymmetry between the first and second modals in (4)–(8), we note, following Turner (1981) and Nagle (1994), that the first modal is always *might, may*, or *must*, while the second is *can, could, would, should*, or *will*. The observation that *might, may*, and *must* exhibit exceptional behavior is the key to the correct analysis of DMCs, and leads further to a unified analysis of DMCs and SMCs. In what follows here, we will first show how epistemic *might, may,* and *must* behave exceptionally in SMCs.

In SMCs, we find that epistemic *might, may,* and *must* behave differently from other modals, semantically and syntactically. For example, most modals assign a subject θ-role, as shown in (9) where passivization changes the meaning of the sentence (Barbiers, 2002)[1].

[1] As pointed out by a PLC audience member, there are constructions in which the modal does not assign its θ-role to the syntactic subject.

(i) Three nurses should attend the patient at all times.

(9) a. Adami **can** (i.e **is able)** convince Aloysius.
b. Aloysius **can (**i.e **is susceptible to)** be convinced by Adami.

In contrast, epistemic *might, may,* and *mus*t do not assign subject θ-roles, as seen in (10) where passivization does not alter the meaning of the sentence:

(10) a. Adami might/may have convinced Aloysius.
b. Aloysius might/may have been convinced by Adami.
'It is possible that Adami has convinced Aloysius.

Further, while most American English modals undergo SAI (11a), we see that SAI is marginal in (11b) with epistemic *might*, and ungrammatical in (11c–d) with epistemic *may* and *must*.

(11) a. **Can/will/should** Adami convince Aloysius?
b. ?**Might** it rain tomorrow?
c. ***May** it rain tomorrow?
d. ***Must** it have rained last night?

The data in (9)–(11) motivate a categorical distinction in American English between epistemic *might, may,* and *must*, and the other modal auxiliaries. The classification of the other modals is obvious. Assuming θ-role assignment takes place within VP, these modals must be V heads. They must also be auxiliary verbs, given that they undergo SAI. We thus refer to them as "V-modals," formalized in the structure given for (1b), where the tensed V-modal *should* moves overtly to T.

(1) b. We **should** go in.
[$_{TP}$ We **should$_1$** [$_{VP}$ **t$_1$** [$_{VP}$ go in]]]

We turn now to an analysis of epistemic *might*, *may*, and *must*. McDowell (1987) offers an early analysis of these as being categorically distinct from other modals, arguing (McDowell, 1987, chs. 2–3) that only these modals have "true" epistemic readings. McDowell classifies them as "truth-conditional operators" that range over propositions. This classification accords with traditional semantic descriptions of epistemic modals as indicators of speaker certainty about the truth of a proposition (e.g. Brewer, 1989). For example, *must* in (12a) indicates relative certainty regarding the truth of *Adami is nervous*, while *might*/*may* in (12b) indicates some level of uncertainty regarding the same proposition.

(12) a. Adami **must** be nervous (because she's shaking so much).
b. Adami **might/may** be nervous (but he's probably just cold).

McDowell notes that these modals surface inside the propositions that they are said to modify. To account for this, she posits (1987, 239–246) that they move at LF to a position in CP, where they can take scope over the sentential proposition, as shown in the structure for (12a).

(12) a. Adami **must** be nervous.
[$_{CP}$ **must$_1$** [$_{TP}$ Adami [$_{T}$ **t$_1$** [$_{VP}$ be nervous]]]]

McDowell provides no definitive syntactic categorization for epistemic *might*, *may*, and *must*, which begs the question of how to categorize these elements. As we have already shown, based on their behavior with respect to θ-role assignment and SAI in (10) and (11), they are not verbs. In-

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(ii) The report must be on my desk by tomorrow morning.

In (i), the obligation denoted by deontic *should* falls to whomever is charged with the supervision of the nursing staff, and in (ii), the obligation falls to the person(s) charged with completing or creating the report. We contend that modal constructions such as (i) and (ii) are equivalent to middle-voice verbal constructions (iii) and (iv), in which the subject θ-role is also assigned to an unexpressed agent.

(iii) The car drives smoothly.
(iv) The book reads easily.

stead, we propose that their categorization is best understood through comparison with recent analyses of sentential negation.

Sentential negation, like epistemic *might, may,* and *must*, appears inside the proposition whose truth value it operates upon. This has been accounted for (Butler, 2004; Davis & Gillon, 2004) by positing LF movement to CP, as shown in (13a). Further, like epistemic *might, may,* and *must*, negation does not independently undergo SAI, as shown in (13b).

(13) a. Adami is **not** nervous.
LF: [$_{CP}$ **not$_1$** [$_{TP}$ Adami is$_2$ [$_{NEGP}$ **t$_1$** [$_{VP}$ t$_2$ nervous]]]]
b. ***Not** Adami is nervous?

McDowell's claim that epistemic *might, may,* and *must* move to CP, together with the similarities noted here between them and negation, motivate the assignment of these modals and negation to a single category. Following Cormack and Smith (2002), we label this category POL(arity) (referring to modals in this category as "P-modals"), and situate it between TP and VP, as in the elaborated structure given for (13a) and (12a).

(13) a. Adami is **not** nervous.
PF: [$_{CP}$ [$_{TP}$ Adami is$_1$ [$_{POLP}$ **not** [$_{VP}$ t$_1$ nervous]]]]
(12) a. Adami **must** be nervous.
PF: [$_{CP}$ [$_{TP}$ Adami T [$_{POLP}$ **must** [$_{VP}$ be nervous]]]]

Under this analysis, P-modals and negation differ only in that the former may bear tense while the latter may not, as indicated by the relative compatibility of each with tensed verbs in (14).

(14) a. *Adami **might/may/must is** nervous.
b. Adami **is not** nervous.

Although P-modals bear tense, they do not undergo SAI (11c). This is because as POL heads, they move only at LF, do not occupy T at PF, and cannot undergo overt T→C movement. Instead, P-modals move from POLP, through T at LF (checking tense), and then to CP.[2]

(11) c. *Must it have rained last night?
(12) a. Adami must be nervous.
LF: [$_{CP}$ must$_1$ [$_{TP}$ Adami t$_1$ [$_{POLP}$ t$_1$ [$_{VP}$ be nervous]]]]

4 Back to DM Constructions

Returning to the discussion of DMCs, we note that under our proposed classification, the first modal in a DMC is always a P-modal (*might, may,* or *must*), while the second is always a V-modal (*can*, *could*, *would*, *should*, *will*). This categorization of DMC modal elements correctly predicts that it is the second modal which will exhibit more tense-related overt behaviors, as it is a V-modal and therefore moves to T at PF (like other AUX verbs). We will now show how this categorization leads to an analysis of the DMC that accounts for the patterns in (4–8).

Adopting Cormack and Smith's (2002) POLP for the analysis of DMCs, one might propose the structure for (1a) given in (15).

(15) We **might should** go in. [=(1a)]
[$_{TP}$ we T [$_{POLP}$ **might** [$_{VP}$ **should** [$_{VP}$ go in]]]]

However, (15) wrongly predicts that the second modal (the V-modal *should*) will not be able to interact with or move to T, since it is separated from T by the P-modal *might*. It also wrongly predicts that the first modal will be the tensed element in the construction.

[2] We remain agnostic as to the exact position of the P-modal in the left periphery; what is crucial here is the fact that the P-modal is only interpretable from a position above TP. In this and subsequent diagrams, CP is a generic label for an unspecified left-peripheral projection.

Given that it is the second modal (the V-modal) which typically displays tense-like behavior in DMCs, we propose an analysis, given in (16), in which the first modal (the P-modal *might*) is inserted into the derivation in a position that is lower than that of the second. In (16), the VP projected by *should* is a complement of T, the POLP headed by *might* is a complement of *should*, and the VP headed by *go* is a complement of *might*.

(16) We **might should** go in. [=(1a)]
[$_{TP}$ we T [$_{VP}$ **should** [$_{POLP}$ **might** [$_{VP}$ go in]]] (before Spell-Out)

It might seem counterintuitive to posit a structure for DMCs that does not reflect their overt linear order. But when the inherent properties of the two modals, one V- and one P-, are taken into account, we will see that (16) leads in a straightforward way both to the overt reordering of the two modal elements at PF and to an explanation of the DMC patterns observed in (4–8).

In (16), the tensed V-modal *should* needs to move to T by Spell-Out, while the P-modal *might* needs to move to CP at LF. If *should* moves to T by itself, then the P-modal *might* will be stranded in POLP as shown in (17), where necessary LF movement of *might* to CP would violate the Head Movement Constraint (Travis 1984). The failure of *might* to take scope over TP would result in an uninterpretable structure and a derivational crash at LF.

(17) We **might should** go in. [=(1a)]
[$_{CP}$ [$_{TP}$ we **should$_1$** [$_{VP}$ **t$_1$** [$_{POLP}$ **might** [$_{VP}$ go in]]]]

In order to escape this stranding, the POL-head *might* must move out of POLP and adjoin to *should*, prior to the movement of *should* to T. The result of this adjunction, illustrated in (18), is a complex DM V-head *might should*:

(18) We **might should** go in.
[$_{TP}$ we [$_{VP}$ **[$_V$ might$_1$ [$_V$ should]]** [$_{POLP}$ **t$_1$** [$_{VP}$ go in]]]]

Since the V-head *should* undergoes overt V→T movement, the adjunction illustrated above must occur prior to Spell-Out. While this movement does violate the principle of Last Resort, since P-modals do not normally move until LF (Section 3), it is the only manner in which the derivation can be saved from crashing.

The adjunction of the P-modal to the V-modal yields the observed surface order, and produces a structure that allows both modals to undergo their required movements. First, the complex DM V-head (*might should*) moves to T, enabling the tensed V-modal *should* to check tense at Spell-Out (19).

(19) We **might should** go in.
[$_{TP}$ we **[$_V$ might$_1$ [$_V$ should]]$_2$** [$_{VP}$ **t$_2$** [$_{POLP}$ **t$_1$** [$_{VP}$ go in]]]]

Once the entire DM V-head is in T, nothing intervenes between the P-modal and the left periphery, leaving the P-modal free to move to CP at LF (20).

(20) We **might should** go in.
[$_{CP}$ **might$_1$** [$_{TP}$ we **[$_V$ t$_1$ [$_V$ should]]$_2$** [$_{VP}$ **t$_2$** [$_{POLP}$ **t$_1$** [$_{VP}$ go in]]]]

This "adjunction-driven" analysis of the DMC succeeds where other analyses fail in predicting the asymmetrical application of tense-related processes to the modals in the DMC. As observed in section 2, these processes apply either to the second modal alone or to the first and second modal together, but not to the first modal alone. The adjunction-driven analysis accounts for this pattern by positing that the DMC consists of two V-heads to which tense-related processes can apply: the simple tensed V-modal head, bolded in (21a), and the complex DM V-head (which has as a constituent the tensed V-modal *should*) bolded in (21b). Tense-related processes do not apply to the first modal alone, bolded in (21c), since it is not a tensed V-head.

(21) a. [$_{V}$ [$_{POL}$ might] **[$_{V}$ should]**]
b. **[$_{V}$ [$_{POL}$ might] [$_{V}$ should]]**
c. *[$_{V}$ **[$_{POL}$ might]** [$_{V}$ should]]

The following section will show how the adjunction-driven analysis accounts for this distributional pattern in various syntactic contexts.

5 Accounting for DM Patterns

Beginning with the aspectual agreement patterns in (4), we analyze perfective *have/'ve/'a* as the head of an ASPP that is positioned between VP and TP. Since this ASP head requires past participle agreement on the verb it selects, both (4a) and (4b) are grammatical. This is because agreement is realized on the V-modal head in (4a) and on the complex DM V-head in (4b):

(4) a. He may **could** have been killed.
[$_{ASPP}$ have$_{[+PERF]}$ [$_{VP}$ **[$_{V}$** may$_{1}$ **[$_{V}$ could]$_{[+PERF]}$]** [$_{POLP}$ t$_{1}$ been killed]]]
b. He **might could**a been killed.
[$_{ASPP}$ -a$_{[+PERF]}$ [$_{VP}$ **[$_{V}$ might$_{1}$ [$_{V}$ could]]$_{[+PERF]}$** [$_{POLP}$ t$_{1}$ been killed]]]

Although *might* shows agreement in (4c), it does not fulfill the requirement that the V head agree with the aspectual element, since by itself, *might* is a not a V-head:

(4) c. *He **might** can've been killed.
[$_{ASPP}$ 've$_{[+PERF]}$ [$_{VP}$ [$_{V}$ **[$_{Pol}$ might$_{1}$]$_{[+PERF]}$** [$_{V}$ can]] [$_{POLP}$ t$_{1}$ been killed]]]

Finally, (4d) is ungrammatical, as none of the modal heads show participle agreement:

(4) d. *He may can have been killed.

Applying the DMC structure proposed in (4) to the aspectual affixation patterns in (5), we see that the complex DM V-head must pass through ASPP on the way to T, and the aspectual affix (*'ve* or *a*) is therefore realized either on the V-modal head alone (*could* in 5a), or on both constituents of the complex DM V-head *might should,* as in (5b).

(5) a. We might **could've** overlooked something.
[$_{ASP}$ [$_{V}$ [$_{POL}$ might] **[$_{V}$ could've]**] ASP^{0}]
b. He **mighta should've** gotten home by now.
[$_{ASP}$ **[$_{V}$ [$_{POL}$ mighta] [$_{V}$ should've]]** ASP^{0}]

Once the DM V-head adjoins to ASP, the resulting complex ASP head moves to T, and the P-modal then moves to CP at LF, as shown previously in (20–21). As predicted by this analysis, (5c) is ungrammatical, because aspectual affixation cannot apply to the untensed P-modal head alone.

(5) c. *She **mighta** could done it.

The distribution of negation in a DMC follows the same pattern as aspect: the POL head *not* selects the modal VP, and the complex DM V-head passes through POLP on the way to TP. Negation is then realized either on the V-modal head (*could* in 6a) or on both constituents of the complex DM V-head (*might could* in 6b).

(6) a. You might **couldn't** find it.
[$_{POL}$ [$_{V}$ [$_{POL}$ might] **[$_{V}$ couldn't]**] POL$^{0}_{[NEG]}$]
b. He **might not couldn't** refuse.
[$_{POL}$ **[$_{V}$ [$_{POL}$ might not] [$_{V}$ couldn't]]** POL$^{0}_{[NEG]}$]

While the adjunction-driven analysis accounts for the grammaticality of (6a–b), it incorrectly predicts ungrammaticality for (6c), in which negation follows the P-modal alone.

(6) c. I thought maybe I better put it [hearing aid] on or I **might not** could understand you.

In section 7, we will argue that the adjunction-driven analysis fails to predict (6c) because (6c) is derived from a distinct structure. For now, we turn our attention to interrogative DMCs.

Interrogative DMCs differ from declarative DMCs in that they remain grammatical even when adjunction does not occur, as shown in (7a), where the failure of the P-modal *might* to undergo SAI with the V-modal *should* indicates that *might* has not adjoined to *should*:

(7) a. **Should** we **might** cancel the trip?
[$_{CP}$ **should$_1$** [$_{TP}$ we **t$_1$** [$_{VP}$ **t$_1$** [$_{PolP}$ **might** [$_{VP}$ cancel …]]]]
b. **Might can** you do this later?
[$_{CP}$ **[$_{V}$ might$_1$ [$_{V}$ can]]$_2$** [$_{TP}$ you **t$_2$** [$_{VP}$ **t$_2$** [$_{PolP}$ **t$_1$** [$_{VP}$ do …]]]]

Although the optionality of adjunction in interrogative DMCs may seem problematic for the adjunction-driven analysis, recall that the process of adjunction serves only to ensure an LF interpretation in which the P-modal scopes above the sentential proposition and operates on its truth value. Thus, it is not the **process**, but rather the **result** of adjunction that renders a DMC grammatical. Therefore, adjunction itself is optional, but declarative DMCs in which adjunction fails are ruled out as ungrammatical, because the resulting structure is one in which the P-modal is stranded below TP.

In contrast, interrogative DMC constructions in which failure of adjunction prevents the P-modal from moving to CP (7a) are grammatical. This is due to the fact that interrogative constructions are open propositions that lack a truth value for the P-modal to operate on.[3] Thus, sentential scope is not required for P-modals in interrogative constructions (7a). However, since adjunction is optional, it may still occur, as in (7b), where the P-modal *might* undergoes SAI as part of the DM V-head. While grammatical, (7b) is less economical than (7a), as it involves an additional PF movement that fulfills no structural or interpretive requirements. This is reflected by the acceptability judgments of native DM users (Battistella, 1995), who prefer interrogative DMCs in which adjunction does not occur (7a) over those in which it does (7b). Finally, as predicted by the adjunction-driven analysis, the P-modal does not undergo SAI alone (7c):[4]

(7) c. ***Might** you could…?

6 Two Analyses for One Construction

[3] A PLC commentator notes that it may be more accurate to consider questions as sets of propositions rather than open propositions. Adopting this formalization changes nothing for the analysis of Yes-No questions here, since presumably, the set of propositions corresponding to a YNQ consists of the affirmative and the negative answer to the YNQ. Since the affirmative and negative answer have opposite truth conditions, they necessarily have opposing truth values, which cannot be co-present in the single YNQ corresponding to both the affirmative and negative answer. Therefore, whether YNQs are formalized as open propositions or as sets of propositions, the fact remains that they lack a truth value for a "truth-conditional operator" such as a P-modal, to operate on. For a syntactic analysis of YNQs as open propositions lacking a polarity specification, see Holburg (2003). For a syntactic analysis of YNQs as sets of propositions, see Wilder (1997).

[4] Within the literature on DMCs, the only discussion of the compatibility of DM structures with *wh*-questions appears in Pampell 1975. Pampell collects acceptability judgments only for *wh*-questions in which the entire DM inverts as a unit as in (i), despite the fact that the prevalence of structures such as (7a) suggests the possibility of DM *wh*-questions in which only the second modal inverts as in (ii):

(i) What kind of proposal might would John agree to? [Pampell, 1975: 113]
(ii) What kind of proposal would John might agree to?

Pampell's results (which are similar for both subject and object *wh*-words) are somewhat inconclusive; he reports (1975, 112) that of his six informants, two reject DM *wh*-questions such as (i) altogether. The remaining four informants accepted only some DM combinations in *wh*-questions, e.g., *might could* but not *might should*. However, Pampell notes that acceptability levels increased greatly when DM *wh*-structures were embedded as relative clauses, as in (iii):

(iii) I wonder what kind of proposal John might would agree to. [Pampell, 1975: 113]

This is unsurprising, given that such embedded clauses are not syntactically interrogative and do not involve subject-aux inversion.

While the adjunction-driven analysis accounts for the majority of the syntactic patterns in (4–8), there remain two syntactic patterns not predicted by this analysis:

(6) c. I **might not could** understand you.
(8) b. I've seen ones that **might possibly could** be flowers...

In (6c), the V-modal's position below negation indicates that it has not undergone the V→T movement predicted by the adjunction-driven analysis. In (8b), the position of *possibly* suggests, quite improbably, that the complex DM V-head contains an adverbial adjunct as a constituent.

In (6c), the position of the P- modal (*might*) above negation suggests that it is tensed, and is therefore located closer to T than the V-modal. Since the V-modal is untensed, it undergoes no movement, such that the P-modal may move unimpeded through T to the left periphery at LF:

(6) c. I **might not could** understand you.
LF: [$_{CP}$ **might$_1$** [$_{TP}$ I **t$_1$** [$_{PolP}$ **t$_1$** [$_{PolP}$ **not** [$_{VP}$ **could** [$_{VP}$ understand you]]]]]]

This "in-situ" analysis of the DM construction, in which the initial and PF orders of the modals are identical, accounts for the appearance of adverbial adjuncts between the modals (8b):

(8) b. I've seen some that **might possibly could** be flowers…
LF: [$_{CP}$ **might$_1$** [$_{TP}$ they **t$_1$** [$_{PolP}$ **t$_1$** [$_{VP1}$ **possibly** [$_{VP1}$ **could** [$_{VP2}$ be flowers]]]]]]

Thus, while the adjunction-driven analysis accounts for the majority of the attested DM patterns, only the in-situ analysis accounts for structures in which constituents appear between the modals.

Although positing two structurally distinct types of DMC is theoretically inefficient, it is justifiable from a variationist perspective, since a comparison with Standard American English (SAE) single modal constructions (SMCs) suggests differing dialectal origins for the two DMCs introduced here. The adjunction-driven DMC is clearly a non-Standard structure, since it involves the selection of PolP by a V head (16), in violation of selectional restrictions of SAE (Wilder, 1997; Butler, 2003), in which only T selects PolP, and Pol selects VP (22):[5]

(16) We **might should** go in. [=(1a)]
[$_{TP}$ we [$_{VP}$ **should** [$_{PolP}$ **might** [$_{VP}$ t$_i$ go in]]]] (Before Spell-Out)
(22) a. John **hasn't** come.
[$_{CP}$ [$_{TP}$ John [$_{PolP}$ **not** [$_{vP}$ **has** [$_{VP}$ come]]]]] (Before Spell-Out) [Wilder 1997:344]
b. The children **can't** do that in there.
[$_{CP}$ [$_{TP}$ the children [$_{PolP}$ **not** [$_{vP}$ **can** [$_{VP}$ do that ...]]]]] (Before Spell-Out)
[Butler 2003:984, 987]

In contrast, the in-situ DMC (8c) resembles the SAE SMC (8d) in that a P-modal takes a VP complement in both.

(8) c. I've seen some that **might** possibly **could** be flowers… In-situ DMC
PF: [$_{TP}$ T [$_{PolP}$ **might** [$_{VP1}$ possibly [$_{VP1}$ **could** [$_{VP2}$ be flowers]]]]]
d. They **might** possibly **have** been flowers. SAE SMC
PF: [$_{TP}$ T [$_{PolP}$ **might** [$_{VP1}$ possibly [$_{VP1}$ **have** [$_{VP2}$ been flowers]]]]]

The key difference between SAE and the variety of English that allows in-situ DMC concerns selectional restrictions imposed by P-modals. In SAE, a PolP headed by negation can select any VP (including one headed by a V-modal) as in (22b) above, but PolP headed by a P-modal cannot select a V-modal complement. In the DMC variety, we find this selectional restriction lifted, such that any PolP head can have any VP complement, including one headed by a V-modal.

Although the in-situ DMC thus bears a structural resemblance to the SAE SMC, its regional

[5] Other syntactic analyses of English negation (e.g. Holmberg, 2003) posit that PolP selects TP. However, regardless of their selectional ordering of TP and PolP, no analysis of Standard American English allows VP to select PolP, as is posited here for the non-Standard, adjunction-driven DMC.

distribution matches that of the adjunction-driven DMC. These facts, taken together, suggest that the in-situ DMC is the result of attempts by SAE speakers to interpret and acquire the non-standard adjunction-driven DMCs within the constraints of SAE, which only allows POL to select VP, and not the reverse. For a full discussion of this "dialect contact" hypothesis, see Elsman (2008, Section 6.5).

7 Conclusion

In this paper, we have shown that a full explanation of the syntactic patterns exhibited in DM constructions cannot be obtained by forcing such constructions into traditional (i.e., "one-modal-per-clause") analyses of English modal auxiliaries. Instead, we have demonstrated that in order to account for the distribution of modals in DMCs, it is necessary examine the similarities between non-Standard DM constructions and Standard SM constructions, and in doing so, we have formulated an analysis that accounts for the syntactic properties of modals in both types of construction.

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