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This paper is concerned with the syntax and semantics of Vietnamese constructions in which a modal element appears unexpectedly to the right of the verb-phrase. Prima facie, this distribution presents a challenge to the universalist proposals of Kayne 1995 and Cinque 1998, a challenge that has been addressed in two previous analyses: Duffield 1998 and Simpson 1997, 1998. The present article re-examines the empirical evidence supporting those previous proposals. It is argued that this evidence is insufficient to justify the derivational complexity of either account. A simpler alternative treatment is proposed which takes account of the various grammatical and extragrammatical conditions governing modal placement in Vietnamese, while simultaneously reconciling these distributions with universal principles.

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FINAL MODALS, ADVERBS AND ANTISYMMETRY IN VIETNAMESE*

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1. Introduction

This paper is concerned with certain issues raised by the existence of Vietnamese sentences having the form in (1) below, in which a modal element, <u>duoc</u>, appears to the right of the main verb, often in clause-final position.¹ This 'final modal' phenomenon is not exclusive to Vietnamese: as Simpson 1997, 1998 discusses, in a number of areally and typologically related languages, elements corresponding to English *can* are also placed to the right of the main predicate complex.

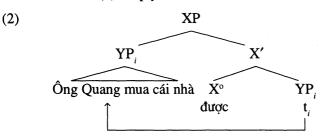
- a. Ông Quang mua cái nhà được.
 PRN Quang buy CLS house can "Quang can buy a house."
 - b. Cô yếu lòng chấp nối với Thục được. PRN weak heart get-married again with Thục CAN "She was again scarcely able to resist marrying Thục."

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¹ One of the goals of the Vietnamese Grammar Project is to compile a bibliography of accessible books and articles on Vietnamese grammar. For a current list or to add relevant articles to the archive, the reader is referred to <u>http://ngd.linguistics.mcgill.ca/Vietnamese</u>.

Sentences of this type attract more than local interest because they seem to run counter to two recent theoretical claims about Universal Grammar. Specifically, these data appear to challenge Kayne's 1995 proposal that heads must always precede their complements underlyingly, as well as recent claims by Cinque 1998 for a universally fixed hierarchy of markers of tense, aspect and modality. Both of these general proposals are outlined in more detail in the next section.

The attractiveness of the larger theoretical claims has led researchers to quite complex derivations for the Vietnamese sentences in (1) (or for their structural equivalents in Thai and Cantonese). In order to reconcile the surface data with universal templates, analyses have been put forward in which syntactic material that is base-generated to the right of the modal is moved leftward, resulting in a derived rightward position for the modal element. This is represented in (2). Since what is raised is a phrasal constituent containing a theta-role-assigning predicate, these analyses have been referred to as predicate (-phrase) raising analyses.² As will be discussed here, the details of these predicate raising analyses differ in important respects, crucially, in whether one or more phrasal constituents are raised around the modal element. Therefore, the derivation in (2) simply schematizes the common feature of these accounts.



Given this type of derivational analysis, both theoretical problems are apparently simultaneously resolved: Kaynian Antisymmetry is satisfied, since the modal element now appears to the left of its presumed complement underlyingly; and Cinque's hierarchy is respected, since all modal elements correctly c-command thematic material (the maximal VP), again underlyingly.

The purpose of this paper is to re-examine the evidence for this type of approach to final modals. I review two recent analyses, that of Simpson 1997, 1998 and my own (Duffield 1998). The claim will be that, in the general case, the empirical evidence fails to support any type of predicate-raising analysis

² This is to distinguish them from cases of simple verb-movement, in which only the head of the verb-phrase is moved leftward. The available evidence suggests that Vietnamese does not have overt verb-movement out of the maximal VP, though there is some evidence for VP-internal movement; see Duffield (in prep. a) for details.

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for sentences of this type, albeit a raising analysis is supported in certain restricted contexts. If this is the correct conclusion, a different account is required. The alternative proposed here seeks to reconcile the Vietnamese data with universal hierarchies, but without recourse to syntactic movement: I argue that the apparently anomalous position of the modal is better explained by the interaction of both formal (syntactic and phonological) and functional (parsing) principles. This analysis is then shown to extend to a range of other right-peripheral elements in South East Asian languages (cf. Cheng 1997).

The paper is organized as follows. Section 2 provides an overview of basic clause structure and of the final modal phenomenon in Vietnamese. This is followed in section 3 by a discussion of the two Universalist claims, those of Kayne 1995 and Cinque 1998, for which the phenomenon poses an apparent difficulty. Section 4 presents the two previous treatments of final modals, and examines the strength of the evidence for either account. In the fifth section, an alternative proposal is presented. In the conclusion, I briefly consider a number of broader theoretical and methodological implications of this analysis.

2. Vietnamese Clause Structure

In this section, the main distributional properties of Vietnamese clauses are presented, to illustrate the contrast between the modal element \underline{duoc} and other grammatical elements, including other modals.

With the exception of the phenomenon under discussion here, Vietnamese is a paradigm example of a strictly head-initial SVO language, displaying what Hawkins 1990, 1995 refers to as strong 'cross-categorial harmony'. This is of course the central background fact of the paper: if Vietnamese were generally head-final, like Japanese for example, the appearance of modals following the verb-phrase would be completely unremarkable.

Independently of any particular framework, the observations listed in (3) below provide clear indication that Vietnamese is head-initial.

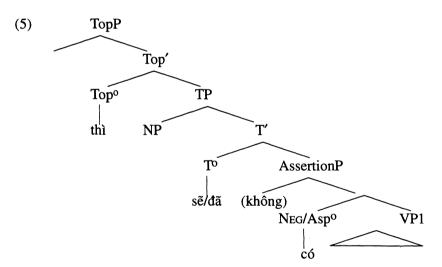
- (3) a. Vietnamese has prepositions, rather than postpositions ([P NP]);
 - b. Objects, both direct and indirect, follow the verb unless topicalized, in which case they appear clause-initially (VO);
 - Noun classifiers and quantifiers precede the noun they modify ([DNP]);
 - d. Possessor noun-phrases and attributive adjectives follow the noun they modify (N GEN, [N AP]);

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- e. Relative clauses follow the noun they modify (N REL);
- f. (Most) Degree Modifiers follow the Adverb/Adjective they modify (A DEG);
- g. Native (i.e., non-Sino-Vietnamese) compounds (NN, NA, VN) are consistently left-headed.

In addition to these properties, other, more theory-dependent, facts are indicative of the strict head-initiality of Vietnamese. In Duffield (1998, in prep. b.), I present an analysis of Vietnamese clause structure as sketched in (5) below. In this analysis, the fixed distribution of tense, negation and topic markers, relative to subject NPs and adverbials, is used in support of the theoretical claims given in (4):

- (4) a. Vietnamese matrix clauses involve at least three functional categories above VP (CP (Topic Phrase), TP, AssertionP (NegP));
 - b. Vietnamese subject arguments raise overtly to [Spec, TP];
 - c. Vietnamese main verbs do not raise overtly out of the maximal VP.



Since the analysis proposed in this paper here appeals directly to this type of representation, it is worth briefly rehearsing some of the evidence for the claims in (4) above.

2.1 Preverbal Functional Categories

Consider first the evidence for the three functional categories enumerated in (4a): TopP, TenseP and AssertionP, respectively. The most direct kind of

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evidence for these projections comes from the distribution of Topic, tense and assertion morphemes, respectively. The task of finding such evidence is slightly complicated by the fact that most of these markers –tense markers, in particular– are optional in declarative clauses; however, the crucial point to observe is that these elements exhibit a rigid ordering whenever they are phonetically realized in the same clause.

The examples in (6) illustrate the distribution of topic marker <u>th</u>. This type of topicalization structure is extremely common in Vietnamese, especially where there is a contrast, either implied or explicit as in (6c). As examples (6a) and (6b) indicate, <u>th</u> is generally omitted in non-contrastive contexts. Almost any type of constituent may be topicalized, including dependent clauses. The examples in (6d) and (6e) illustrate the conditional function of <u>th</u>, while the passage in (6f) shows its use in more neutral 'topic...comment' contexts. In each case, exactly one topicalized constituent—underlined in (6)—precedes <u>th</u>.

- (6) a. (<u>Còn</u>) tôi (thì) (tôi) hoàn-toàn tán-thành.
 (as for) I TOP I completely approve "As for me, I fully approve of it."
 - b. <u>Người đó</u> (thì) tôi không biết (anh ấy).
 person TOP I NEG know PRN DEM "I don't know that person."
 - c. Cô nói được tiếng Anh không? you speak can language English NEG "Can you speak English?"

Ít thôi. <u>Tiếng Pháp</u> thì tôi nói tốt lắm, nhưng <u>tiếng Anh</u> little only. lge. Fr. TOP I speak good very, but lge. Engl. thì khó lắm.
TOP hard very
"Just a little. I speak French very well, but English is very difficult."

- d. <u>(Néu) cô ấy đi Toronto</u> thì tôi không ở Montreal. (If) PRN DEM go Toronto TOP I NEG be-at Montreal "If she goes to Toronto, I won't stay in Montreal."
- e. <u>Nhưvây</u> thì tôi không rảnh lắm. as such TOP I NEG available very "In that case, I'm not available."

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- f. <u>Rừng thì rậm, đường đi</u> thì khó-khăn. forest TOP dense, routes-of-communication TOP difficult. <u>Chim rừng, thú dữ</u> thì nhiều, còn <u>bóng người</u> thì thật là bird forest TOP many, as-for shadow men TOP real COP hiếm.
 - rare.

"The forest was dense, the routes of communication difficult. Forest birds and wild animals were abundant, while the shadows of human beings were truly rare." (Thompson 1987 : 244)

As will become important presently, topicalized constituents— $[XP+\underline{thi}]$ phrases—are subject to two structural constraints: 1° they always appear in initial position preceding the subject; 2° they are limited to one occurrence per clause.³

With respect to TP, Vietnamese has at least three morphemes that mark temporal (or aspectual) distinctions: the future morpheme $\underline{s\tilde{e}}$, the past-tense/ completive marker $\underline{d\hat{a}}$, and the continuous morpheme \underline{dang} . All three items are free morphemes and are generally in complementary distribution ($\underline{s\tilde{e}}$ and $\underline{d\hat{a}}$ never co-occur).⁴

The contrasts in (7) and (8) below show that these three tense morphemes share a fixed position in matrix clauses: they directly follow the subject NP (which, as just noted, itself follows any topicalized constituent); they precede modal elements other than \underline{duoc} , sentential negation and (subject-oriented and manner) adverbials, which themselves all precede the lexical verb.

- (7) a. *Tôi tiếng Pháp thì sẽ nói tốt lắm (cf. 6c) I language French TOP FUT speak good very "I will speak French very well."
 - b. *Tiếng Pháp thì sẽ tôi nói tốt lắm.
 lge. French TOP FUT I speak very well
 "I will speak French very well."

³ In this respect, th exhibits the same rigid 'second position effect' as the finite verb in verbsecond languages.

⁴ More detailed discussion of the semantics of these morphemes is provided in Duffield (in prep. b). What is important for present purposes is that these are 'INFL-related elements', in the sense that they always appear in a functional position higher than the maximal VP (and than the proposed Assertion Phrase).

- (8) a. Tôi (sẽ) cẩn thận (*sẽ) viết lá thơ này.
 I FUT carefully FUT write letter DEM "I will write this letter carefully."
 - b. Anh ấy (đã) cần thận (*đã) đọc quyển sách. PRN DEM PAST carefully PAST read CLS book "He read the book carefully."
 - c. Tôi cho là ngày may trời (sẽ) không (*sẽ) mưa. I think COP tomorrow sky FUT NEG FUT rain "I think that it won't rain tomorrow."
 - d. Anh ấy (đã) không (*đã) về Việt Nam. PRN DEM PAST NEG PAST return Vietnam "He has not returned to Vietnam."
- (9) a. Cô ấy sẽ không gặp em được. PRN DEM FUT NEG meet PRN can "She will not be able to meet with me."
 - b. Cô ấy sẽ không phải gặp em.
 PRN DEM FUT NEG MUST meet PRN
 "She will not have to meet with you."
 - c. Cô ấy sẽ phải không gặp em.
 PRN DEM FUT MOD NEG meet PRN
 "She will have to not meet with you."
 - d. *Cô ấy không sẽ gặp em.
 PRN DEM NEG FUT meet PRN
 "She will not meet you."

The sentences in (8a-c), for example, show that tense must precede manner adverbials, as well as the negation morpheme <u>không</u>; those in (9) illustrate the positioning of tense and negation morphemes relative to pre-verbal modal elements other than <u>duợc</u>: here, the modal <u>phải</u> (must). Notice here, in (9b) and (9c), that the negation morpheme may either precede or follow modal elements; negation directly precedes whatever lexical constituent it negates. However, negation always follows any tense element.

The next functional projection, immediately subjacent to TP in (5), here labeled AssertionP (AsrP), is the one most relevant to the present analysis. In

Duffield 1998, I propose that this functional projection is headed by the Vietnamese morpheme <u>có</u>; the precise status of this element will prove crucial in the alternative analysis of <u>duoc</u> proposed here. <u>Có</u> appears in several different types of Vietnamese sentences: in interrogative and emphatic contexts, and also in ellipsis contexts. In fact, in many respects, <u>có</u> functions very similarly to English *do*-support.⁵

- (10) a. Hôm qua anh không (có) đến nhà chi. yesterday PRN NEG ASR go house PRN "He didn't go to your house yesterday."
 - b. Hôm qua anh (có) đến nhà chị không? yesterday PRN ASR go house PRN Q
 "Did he go to your house yesterday?"
 - c. Anh (có) đi về Việt Nam không? PRN ASR go return Vietnam Q "Did he return to Vietnam already?"
 - d. Anh ấy đã đi về Việt Nam, (có) phải không? PRN DEM PAST go return Vietnam ASR right Q "He already returned to Vietnam didn't he?"
 - e. Có phải anh ấy đi về Việt Nam không? ASR right PRN go return Vietnam Q "Did he return to Vietnam already?"

The examples in (10b) and (10c) illustrate typical Yes-No questions in Vietnamese, signalled by placing the negation element <u>không</u> sentence-finally, with the assertion/interrogative marker <u>có</u> appearing in medial position. These should be compared with the negative sentence in (10a). There are two points to observe about these examples. First, with the exception of copular constructions, the <u>có</u> morpheme itself is always optional in Yes-No questions; the presence of <u>không</u> is sufficient to signal the question. Second, there is nothing inherently or implicitly negative about such expressions: in sentence-final, as opposed to pre-verbal position, <u>không</u> functions as a pure question-marker (or Q-marker, as indicated in the gloss). In what follows, I will argue that this is because sentence-final <u>không</u> is licensed through c-command by the [\pm wh]

^{5 &}lt;u>C6</u> may also function as a lexical verb corresponding to English 'have' indicating possession. It is probably not coincidental that both of these unrelated languages should employ a functional auxiliary element as a lexical verb meaning 'have/own'; see, for example, Kayne 1993.

features of AsrP. The examples in (10d-e) show that \underline{co} also appears in Vietnamese tag-questions and clefts. Co also appears in non-interrogative emphatic contexts, as illustrated in (11), and in elliptical responsive contexts in (12), used in place of the lexical verb.⁶ Notice that in every case in (11), co appears as the lowest functional element preceding the lexical verb: the crucial contrast here is in (11b), which shows that the sentential negation morpheme must precede co, rather than vice versa. The contrasts in (11c-d) show further that co also invariably follows the tense morphemes (sẽ, đã).

- (11) a. Cô X. có ăn hối-lô. PRN X. ASR eat-bribes "Miss X. did take bribes."
 - b. Cô X. (*có) không (có) ăn hối-lô. PRN X. ASR NEG ASR eat-bribes "Miss X. did not take bribes."
 - c. Cô X. (*có) đã (có) ăn hối-lô. PRN X. ASR PAST ASR eat-bribes
 - d. Cô X. (*có) sẽ (có) ăn hối-lô. PRN X. ASR FUT ASR eat-bribes
- (12) a. Chị có viết th÷ không? PRN ASR write letter Q "Did you write/Will you write the letter?"
 - b. Anh có mua quyển sách này không? PRN ASR buy CLS book DEM NEG "Did you buy/Will you buy this book?"
 - c. Có / không (có)!
 "I did! / I didn't!"

The examples in (10-12) thus provide distributional as well as interpretive evidence that <u>có</u> heads a functional projection immediately above VP. That

⁶ For some speakers, \underline{co} can only be used to respond to [+telic] verbs; for states and activities the predicate itself is required. Thus, \underline{co} is less than fully acceptable in contexts such as (a) below.

⁽a) Chị (có) bận không? PRN ASR busy Q "Are you busy?"

this is a functional projection, as opposed to an adverbial position, for instance, is suggested by the fact that the interpretation of \underline{co} , like that of dummy *do* in English, is functionally determined: \underline{co} is interpreted as a question marker in interrogative contexts, but as an emphatic marker in declaratives. This type of functional determination is arguably a diagnostic of functional, rather than lexical, elements.

The idea that \underline{co} heads a projection associated with the interpretation of the whole sentence, rather than just the verb-phrase, is supported by the fact that sentential negation, which in all other instances directly precedes whatever it modifies, invariably precedes \underline{co} rather than the verb, as in (11b). This idea is further supported by the fact that \underline{co} substitutes for the whole clause in responsives (12c).

In addition to these language-specific facts, there is considerable crosslinguistic as well as theory-internal evidence supporting the idea of some type of Assertion Phrase or Polarity Phrase as a component of INFL. This is a generalization of the 'NegP' hypothesis to affirmative contexts that dates back to Chomsky 1965 and Klima 1964; see also Pollock 1989, Laka 1990, Zanuttini 1993.

Given these arguments, I assume that the negation marker and the emphatic marker are jointly associated with a functional head Asrp between Tense and VP. The template in (13) summarizes the fixed linear order of the 'INFL-related elements' discussed thus far.

(13) topicalized XPs>Subject>Tense>Modals>Negation/Assertion>Verb

2.2 Postverbal Modal placement

The previous section has shown that with the exception of sentence-final Q-markers, Vietnamese consistently places functional morphemes between the subject NP and the left-edge of the VP. With this in mind, consider the following examples in which the modal element <u>duoc</u> appears to the right of the verb. Modal <u>duoc</u> is multifunctional in the sense of Baker, Lefebvre and Travis 1997, in that it receives quite distinct interpretations as a function of its clausal distribution.

(14) a. Tôi kiâm việc được. I find work can "I can find work." b. Tôi kiếm được việc.

I find can work

"I can find work/I managed to find work."

These examples as well as those in (1) above show that <u>duoc</u> invariably follows the main verb when the intended interpretation of this modal is alethic (abilitative) or, in some cases to be discussed below, epistemic. It should be noted that when used deontically or as a passive auxiliary, <u>duoc</u> appears preverbally, as would otherwise be expected. The examples in (15) illustrate these pre-verbal instances of <u>duoc</u>: in (15a), <u>duoc</u> corresponds to the deontic use of can; in (15b), <u>duoc</u> functions as a passive auxiliary; in (15c), <u>duoc</u> is standardly translated as 'receive, obtain, be benefitted by'. Although such pre-verbal uses of <u>duoc</u> are doubtless of some theoretical interest, they will be ignored henceforth, since their analysis does not obviously call for any type of movement.⁷

- (15) a. Tôi được kiếm việc.
 I can look-for work
 "I am/was permitted to find work."
 - b. Dân chúng được chính phủ xây cho một cái cầu.⁸
 people PASS government build for one CLS bridge
 "The people had this bridge built for them by the government."
 - c. Sáng này chị tôi được thơ. morning this sister I receive letter "My sister received a letter this morning."
 - d. Chỗ này làm cho người ta được mạnh-khỏe. place this make give person receive healthy "This place makes one healthy."

Returning to the sentences in (14), it should be noted that while both examples allow an abilitative interpretation for \underline{duqc} (which is the central focus of this paper) the (b) example also allows a past tense achievement reading, hence the alternative translation. A similar ambiguity is observed in English: 'I

⁷ Thomas 1988 provides the clearest statement of the generalizations upon which to build any analysis of passive <u>durge</u>: see also Durong 1971, Clark 1971. For present purposes, the point to observe is that (distributionally) passive <u>durge</u> presents no particular problem for a straightforward SVO treatment.

⁸ Example (b) is from Durong 1971; examples (c) and (d) from Thompson 1987: 344.

could find work' can be interpreted as either 'was able to' or 'managed to'. Elsewhere, I have suggested that for Vietnamese this ambiguity reflects a structural effect, that just in this position <u>duoc</u> should be interpreted as an aspectual element, in association with the functional category AspP within VP; see Duffield 1998, in prep. a, cf. Travis 1991. Whether or not this proves correct, the fact remains that <u>duoc</u> retains an abilitative reading post-verbally, either when it immediately precedes the object as in (14a), or in sentence-final position in (14b); this constitutes a challenge to universalist assumptions regarding headedness and modal placement.

3. Universalist Challenges

Postverbal <u>duoc</u> poses a potential challenge to two recent universalist proposals regarding phrase-structure: the Antisymmetry proposals of Kayne 1995 and Cinque's 1998 claims regarding modal and adverbial placement.

3.1 Kayne 1995

Let us first consider Kayne 1995. Kaynian Antisymmetry imposes a strict ordering requirement on heads, specifiers and complements universally, such that phrasal constituents must always be head-initial underlyingly, with the specifier (non-complement) position to the left of the head. To account for languages such as Japanese, in which the surface position of the head is regularly to the right of its apparent complement, it is suggested that in such cases the complement phrase has undergone leftward raising to the specifier position of some higher (functional) head; only in this way can Antisymmetry be satisfied.

Kayne's attempt to constrain phrase-structure representations in this principled fashion is attractive both conceptually and empirically for languages other than Vietnamese. In general, as we have seen, Vietnamese poses no challenge to Antisymmetry, being otherwise strictly head-initial. It is only rightward <u>duoc</u> that presents a possible difficulty.

An important consideration here is that \underline{duoc} really presents a challenge only if it is analyzed as a head taking a VP (or IP) complement. Although this is a standard assumption about such modals, and is implicit in both previous treatments of \underline{duoc} discussed below, it is not a necessary one; indeed, I will suggest in this paper that that assumption may be incorrect.

3.2 Cinque (1998)

Rightward <u>durce</u> presents a different kind of challenge to Cinque's 1998 proposals concerning modal placement. Following von Wright 1951 and Rescher 1968, Cinque 1998: 137-8 distinguishes several types of modal interpretation conveyed by English *can*. Of these, three interpretations are relevant to the present discussion: epistemic, alethic (abilitative) and root (deontic). The originality of Cinque's proposal lies not in the semantic distinctions drawn, but rather in the claim that each of these senses is associated with a particular structural position, and that these positions are strictly hierarchically ordered. In Cinque's 1998 hierarchy, all modal elements occupy functional projections higher than the minimal VP: epistemic modals are generated above TP, with deontic and alethic modals positioned between TP and AspP. The hierarchical positions relevant to this paper are schematized in the template in (16):

(16) mood_{EPISTEMIC} > Tense > mood_{ABILITY/PERMISSION} > aspectuals > VP

It should immediately be clear that Vietnamese distinguishes structurally between deontic (permission) and alethic (abilitative) uses, with the former appearing preverbally as predicted –compare the sentences in (15)– and the latter postverbally. It is, of course, the post-verbal, in particular the sentence-final, positioning of alethic (and occasionally also epistemic) <u>duoc</u> that presents some difficulty for this proposed hierarchy. If the positioning of modals is indeed universally fixed, then it might seem as if sentences such as those in (1) and (14) above must involve a rather complex derivation, moving other VP-related material to the left of the modal in order to arrive at the observed surface word-order. This is the tack taken by Simpson 1997, 1998.

In summary, if rightward <u>duoc</u> is analyzed either as a head or as a modal adverb in its canonical position, it seems to challenge universalist assumptions. Both previous treatments of rightward <u>duoc</u> have addressed this challenge in terms of derivational complexity, essentially by moving material that 'should' appear to the right of the modal to its left (in one or more steps). In this paper, I will propose an alternative solution, one which largely preserves the theoretical intuitions of both Kayne and Cinque as well as most of the empirical advantages, but which considerably reduces derivational complexity in deriving modal placement in Vietnamese.

Before outlining that alternative solution, I review the two previous treatments of the problem of rightward <u>duoc</u>.⁹ The claim will be that the

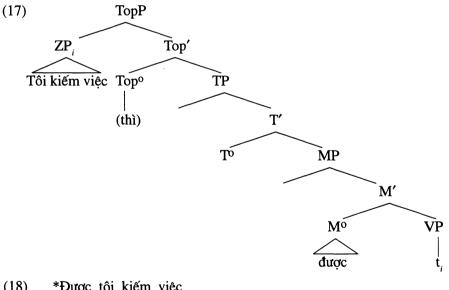
⁹ The two analyses were arrived at quite independently: at the time of writing, neither author was aware of the other's work.

empirical facts fail to provide strong support for either of these accounts in the general case, and that the derivationally simpler account offered here is to be preferred.

4. Predicate Raising and Postverbal duoc

In this section, I review two recent accounts of post-verbal \underline{duqc} , Duffield 1998 and Simpson 1997. Although both authors pursue the same general strategy, deriving sentence-final \underline{duqc} by preposing other material to some higher position as in (2) above, the two analyses diverge in important respects. I present my previous analysis first.

In Duffield 1998, I argued for the analysis of rightward <u>duoc</u> as schematized in (17) below. This analysis involves the raising of a single sentential constituent into a higher topic position; essentially, I treat the raised constituent as an obligatory sentential subject of (epistemic) <u>duoc</u>.



(18) *Được tôi kiếm việc CAN I find work "I can find work."

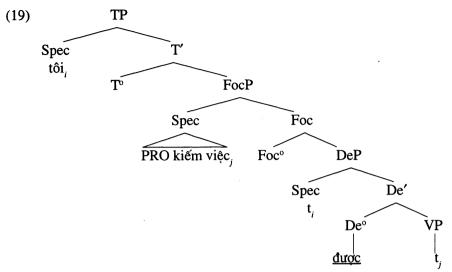
This derivation yields the correct word-order in certain instances, (14a) for example; indeed, as I shall argue directly below, it may be the correct analysis for some of these cases. Nevertheless, the analysis fails in at least three important respects. First, there is no real conceptual motivation for the obligatoriness

of topic-raising; the ungrammaticality of (18) clearly shows this movement to be obligatory. Second, while there are plausible reasons to believe that *epistemic* <u>duoc</u> might trigger subject raising of this type, this is harder to maintain for *abilitative* <u>duoc</u>; by standard assumptions, abilitative <u>duoc</u> should select for, and assign a theta-role to, an animate or volitional subject (sentential subjects should fail to qualify). Finally, this analysis fails to derive sentences such as (14b), which still permit an abilitative reading, but where other lexical material, including object complements, appear to the right of the modal. For such cases, which are by no means uncommon, it is difficult to maintain a sentential subject account; on the other hand, an account in terms of verb-raising for just these cases presents theoretical problems of its own, and can be excluded on independent grounds.

It might seem then that this account should be rejected out of hand, were it not for certain crucial sentences where it appears to be correct. Before considering such cases, I will present Simpson's 1997, 1998 alternative proposal, since the evidence bears on that analysis as well.

The first obvious difference between the two approaches is that Simpson's analysis is explicitly comparative: Simpson argues for predicate-raising in several areally-related South East Asian languages, including Khmer, Vietnamese, Thai and Cantonese, with most key examples being drawn from the latter two varieties. While this more general approach potentially yields more interesting insights, it also runs a greater risk that the generalizations arrived at do not in fact correctly describe a particular language. I suggest that this is the case here, that whether or not Simpson's analysis holds for Thai or Cantonese (about which I have nothing to say), it does not for Vietnamese.

The main difference between the two accounts, however, is with respect to derivational complexity. Simpson's proposal is schematized in (19). It involves a combination of predicate-raising, subject raising and Control. The derivation of a sentence such as (14a) would proceed as follows. The subject <u>tôi</u> would be generated in the specifier position of the projection headed by the abilitative modal <u>duoc</u>, from which it receives its (abilitative) theta-role; <u>tôi</u> is then raised to [Spec,TP] by standard feature-checking/raising mechanisms. The remaining material, including a PRO subject for the lexical verb, is generated as a VP complement of the modal. Movement of some or all of this lexical material to the Specifier of FocP is taken to be driven, at least historically, by an interpretive requirement, namely, to de-focus indefinite non-focused material; by hypothesis, the position to the right of the modal is a Focus position. <u>Tôi</u> then comes to be interpreted as the subject of the lexical verb through (obligatory) Control of the lower PRO.



Simpson's purpose in his paper is twofold. On the one hand, like Duffield 1998, the goal is to find empirical evidence to support the proposed analysis, which in turn would remove this apparent counterexample to a universalist claim. Though for Simpson it is Cinque's rather than Kayne's proposal, which is the principal theoretical concern. I will examine this evidence directly. On the other hand, while proposing a predicate-raising analysis, Simpson explicitly argues against the derivationally much simpler sentential subject raising analysis in (17). Although I will ultimately reject any type of predicate-raising analysis in the general case, (14a) for example, I would like to argue here that the analysis in (17) is still correct in certain instances. For this reason, it is necessary to first consider the evidence for and against sentential subject raising.

4.1 Arguments for and against a sentential subject analysis

4.1.1 Position of the topic marker

One of the main pieces of supporting evidence for the sentential subject analysis in (17) is the prevalence in Vietnamese of sentential subjects more generally. As the examples in (20) illustrate, Vietnamese sentential subjects are not introduced by any subordinating complementizer: indeed, it is ungrammatical to place a complementizer in sentence-initial position.¹⁰ In spite of this, such constructions are highly frequent, and appear to be parsed without difficulty:

¹⁰ This shows, I believe, that the presence or absence of complementizers in sentential subject contexts is a matter of grammar, as argued in Chomsky and Lasnik 1977, rather than of processing, as Bever 1970 argued. See the discussion of this question in Newmeyer 1983.

(20) a. (*Rằng) họ cười khúc khích làm chúng em thẹn. (Nguyễn 1997: 222) that PRN laugh giggle make PL PRN embarrassed "(The fact that) they giggled embarrassed us."
b. (*Rằng) nhà tôi ở trong hẻm thế này mà anh tìm ra kể that house I be in alley like this REL you find show giỏi lắm

skillful very "(The fact that) my house is in an alley like this yet you found it shows that you are pretty clever." (Huffman and Hai 1980)

- c. Ông Ba có ngủ ngon không? (Đương 1971) prn Ba Asr sleep well Q "Did Mr Ba sleep well?"
- d. Ông Ba ngủ có ngon không?
 PRN Ba sleep ASR well Q
 "Did Mr Ba have a good sleep?" (lit. Mr. Ba sleeps is good)

By themselves, the examples in (20) show only that sentential subjects are available in Vietnamese, and that they are superficially indistinguishable from matrix clauses (until the point at which the matrix predicate is encountered. However, the analysis in (17) above involves further raising from the clausal subject position [Spec, TP] into a higher [Spec, TopP], at least in certain instances. Evidence for this additional raising is given by the position of the topic morpheme thi; compare (5) and the examples in (6) above.

In general, the topic morpheme is only used to contrast possibilities established by the previous discourse, or to mark the material preceding as subordinate to the matrix predicate (for example as the antecedent of a conditional, these functions being illustrated by the examples in (6)). Now, it will be recalled from the earlier discussion that topic-phrases in Vietnamese are subject to two structural constraints, namely that they are limited to one per clause, and that they must appear in sentence-initial position.

Given these constraints, consider the sentences in (21) below, which contain both <u>thì</u> and <u>dược</u>. Example (21a) shows <u>dược</u> used in a quotative context; here, where the speaker is giving a grammaticality judgment, <u>dược</u> indicates the acceptability of the preceding sentence. In example (21b), the presence of <u>thì</u> simply indicates less certainty on the part of the speaker.

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- (21) a. Anh kiếm việc ở Montreal thì (nói) được... PRN find work in Montreal TOP (say) can "You can say: 'you' ll find work in Montreal.'"
 - b. Anh kiếm việc thì được. PRN find work TOP can "(I think) you can find work."

Notice that in both cases in (21) <u>th</u> appears immediately before <u>ducc</u>, following the contrasted constituent. This distribution is exactly what the sentential subject analysis in (17) predicts. It is unclear, however, how this could be derived by the alternative Control analysis in (19).

Further problems arise for the Control analysis when it is considered that \underline{duqc} itself can be modified by the future tense morpheme <u>sē</u>. Notice that here the competing analyses in (17) and (19) make quite different predictions with respect to the possible positions for this element: whereas the Control analysis only permits the tense morpheme to appear between the subject and the first predicate—position 1 in (22a) below—the sentential subject analysis predicts that this morpheme should occur either in position 1 as part of the sentential subject, or in a second position immediately preceding <u>duqc</u>, as in (22b). This latter option is blocked in the Control analysis since, on Simpson's account, the VP-predicate is fronted to a specifier position [Spec,MP] situated below, rather than above, TP.

- (22) a. [TP Anhj [$\uparrow 1$ [MP [VP PRO kiếm việc]_i $t_j \underline{duợc} t_i$]]] PRN find work can
 - b. [TopP [TP Anh $\uparrow 1$ kiếm việc], thì [TP t, [$\uparrow 2$ <u>dược</u>]]] PRN find work

The grammaticality of the sentences in (23), then, is clearly more consistent with a sentential subject analysis than with the Control account.

- (23) a. Anh kiếm việc thì sẽ được. PRN find work TOP FUT can "You will certainly be able to get a job."
 - Em viét lá thơ cho anh thì (?sẽ) được.
 PRN write letter for PRN TOP FUT can
 "She will certainly be able to write a letter for you."

4.1.2 Selectional Restrictions

Simpson presents four arguments against treating the material preceding \underline{duqc} as a raised sentential subject. First, he claims that the Thai correlate of \underline{duqc} , dai, imposes a selectional restriction on its subject, such that the subject of a dai sentence must be [+animate]. To support this claim, Simpson cites the unacceptability of dai with impersonal verbs.

(24) ??fon dok dai. rain fall can "It can rain."

Simpson interprets this restriction as implying theta-marking: <u>dai</u> is taken to select for and to theta-mark the subject of its clause. If this were the case, then by standard assumptions the subject NP could not simultaneously be the subject of <u>dai</u> and the subject of the fronted predicate phrase.¹¹ Thus, the example in (24) would seem to preclude the raising analysis in (17), forcing instead a control analysis, perhaps as in (19).

It is not clear, however, that examples such as (24) really warrant this conclusion, since at least in Vietnamese <u>durge</u> does not seem to require an animate subject in all instances. It is true that the direct Vietnamese equivalent of (24), namely (25a), is just as anomalous in Vietnamese as in Thai. However, examples (25b) and (25c) show that <u>durge</u> can in fact appear in sentences in which the subject is inanimate or impersonal:

- (25) a. ??Ngày mai trời mưa được. tomorrow sky rain can "Tomorrow it can rain."
 - b. ?Ngày mai trời có thể mưa được. tomorrow sky perhaps rain can "Tomorrow it could rain."
 - c. Chuyện này có thể xảy ra ở mọi nơi được.
 story this perhaps happen at each place can
 "Things like that can happen anywhere."

By introducing <u>có thể</u> ('perhaps, is possible') in (25b), grammaticality is improved; sentence (25c), which contains an impersonal, inanimate subject <u>chuyện này</u>, is fully grammatical for most speakers. This suggests that theta-

¹¹ Naturally, the standard assumptions could be incorrect: see, for example, Hornstein 1999.

marking is not in fact the source of the problem in sentence (25a) either.¹² Notice that the expression \underline{co} thể, here glossed as 'perhaps', contains the same AsrP morpheme \underline{co} that was already observed in emphatic and interrogative contexts; see examples (11) and (12) above. That it is the same morpheme is strongly supported by the fact that in the negative form of this expression 'perhaps not, is not possible' \underline{co} thể is replaced by the negation morpheme không: không thể. I will return to this shortly.

The correct interpretation of the ungrammaticality of (24) is, I think, semantic rather than structural; or, at least structural in a different way from that assumed by Simpson. Earlier, it was claimed that in sentence-final position <u>duoc</u> is interpreted as either epistemic or abilitative, whereas in pre-verbal position <u>duoc</u> is interpreted deontically; compare again (14) vs. (15) above. While this remains true, it is also correct that in normal deictic contexts, the preferred reading of sentence-final <u>duoc</u> is abilitative (or potential) rather than epistemic.

This is no less true for non-deontic uses of English *can*, which only (easily) allows epistemic readings in non-deictic generic contexts: compare the cases in (26) and (27) below.

- (26) a. ??It can snow tomorrow.
 - b. It can snow at any time (in Montreal).
- (27) a. Ayumi can show up tomorrow. ok: abilitative ??epistemic
 - b. When preparing handouts, make extras. Some people can show up late. ?? "abilitative (less preferred) ok: epistemic

If anything, the preference for the abilitative reading in normal contexts is stronger in Vietnamese than in English, unless, as in the grammatical examples in (25), the epistemic reading is coerced by $\underline{co} \ \underline{the}$. If this is the correct interpretation of the restriction in (24), then such evidence does not by itself preclude the raising analysis in (17).

What it does suggest, however, is that the epistemic reading of sentencefinal \underline{duqc} is only properly licensed whenever this other modal category is present. Below, I will suggest that this licensing is structural rather than semantic, and that it provides the clue to the problem of phrase-final elements in general.

¹² This alternative explanation may also carry over to Simpson's original Thai example in (20), though more work needs to be done to establish this.

4.1.3 Extraction Asymmetries

A second argument that Simpson presents against the sentential subject analysis has to do with extraction asymmetries. Simpson observes for Thai that, whereas relativization or topicalization out of a sentential subject is generally ungrammatical, no such restriction is observed in <u>dai</u> sentences; compare (28) vs. (29) (Simpson's (28-30)).¹³

- (28) a. *phuu-chaai O_i thii [loon khop t_i] mai dii ko khuu... man REL she associates-with NEG good be-namely... "The man who that she associates with is bad is...(e.g. John)"
 - b. *sing-law-nan-na_i [khaw phuut t_i] may dii things-group-that-top he speak not good "Those things_i [that she says t_i] are bad."
- (29) phuu-chaai O_i thii [loon khop t_i] mai dai ko khuu man REL she see NEG can is "The man who she may not date is ... (John)"

As Simpson points out, the grammaticality of a sentence such as (29) is unexpected if it is structurally parallel to those in (28), as a sentential subject analysis would have it. The bracketing in (29) indicates the domain of the sentential subject, if such an analysis were to be applied. The sentences in (30) and (31) reveal an identical contrast in Vietnamese.

- (30) a. *Người đàn ông O_i mà t_i thích uống bia không tốt là Ông James. person man REL like drink beer NEG good COP PRN James "*That man there_i, that t_i likes beer is not good, is James."
 - b. Chuyện đó_i thì [cô ấy nói t_i] không tốt. matter DEM TOP PRN DEM say NEG good "It's not good that she says those things."
- (31) Người đàn ông, mà [cô ấy hẹn t,] không được là Ông James. person man REL PRN DEM date NEG CAN COP PRN James "The man that she cannot date is James."

Although such evidence does argue against treating the material preceding <u>duoc</u> as a sentential subject, it is not clear that the Control analysis offered by

¹³ These examples are taken directly from Simpson's paper. The minor discrepancies between the glosses and translations do not appear to be material to the main argument.

Simpson really fares much better in this regard. The most that can be said is that these contrasts are weakly consistent with a control analysis such as (19), since they would also be consistent with the null hypothesis about <u>dai</u> structures, namely that no predicate raising of any kind is involved in their derivation.

Precisely the same comment applies to Simpson's third argument against (17), which has to do with relative scope (once again in Thai constructions with <u>dai</u>). Simpson points out that in sentences which involve two modal elements (sentence-final <u>dai</u> plus a pre-verbal modal auxiliary) it is the other modal element that takes scope over <u>dai</u>, rather than vice versa. If relative scope is strictly determined by c-command, this result is quite unexpected under a sentential subject analysis, since the pre-verbal modal, being contained within the sentential subject, should be unable to c-command <u>dai</u>. That is to say, relative scope should be reversed in such cases on a sentential subject analysis, contrary to fact. Simpson's example (32) is reproduced in (32) below.

(32) khun doong phoo phaasa thai dai nit-nooi.¹⁴ you must suffice speak Thai can a little "You must be able to speak a little Thai."

Here once again there is no crosslinguistic data conflict: the examples in (33) show that Vietnamese and Thai exhibit the same relative scope effects.

- (33) a. Anh phải nói tiếng Việt một ít được.¹⁵ you must speak lge. Vietnamese a little CAN
 "You must be able to speak a little Vietnamese."
 - b. Cô ấy nên học ở Montreal được. PRN DEM should study in Montreal CAN "She should be able to study in Montreal."

Naturally, one could question the necessary assumption that the relative scope of modals is determined purely by (s-structure) c-command. If we accept this assumption, then Simpson is clearly correct to suggest that these data cannot be handled by the analysis in (17). However, it does not follow from this that (17) is wrong in all cases; as was argued above, something like the sentential subject analysis in (17) is required to handle examples such as (21) and (23).

¹⁴ Simpson does not say how it is possible for <u>nit-nooi</u> to modify Thai while appearing after <u>dai</u>. 15 Two speakers consulted found both of these examples marginal with <u>durge</u> in final position: if <u>durge</u> is placed before the object noun-phrase in (33a), the sentence improves considerably. However, this is not possible in (33b), since here the only reading for <u>durge</u> if it is immediately postverbal is that of completion/result: this is incompatible with the meaning of the modal <u>nen</u>. For further discussion of this point see below, as well as Duffield in prep. a.

More importantly, to the extent that arguments from relative scope apply, they turn out to damage the control analysis in (19) at least as much as the sentential subject account in (17). As will be shown directly, Vietnamese facts concerning the relative scope of negation cast serious doubt on the viability of any sort of predicate-raising of <u>duoc</u> in the general case.

To summarize, the evidence presented in this section appears somewhat contradictory. On the one hand, there is reasonably direct evidence from the distribution of tense morphemes and topic markers that at least some instances of clause-final <u>duoc</u> involve sentential subjects, as I proposed previously. Conversely, there are contexts (those involving extraction and/or relative scope of modals) where the sentential subject analysis makes the wrong predictions, and where Simpson's analysis in (19) is more consistent with the facts.

In almost all of these latter contexts, however, the facts are equally consistent with a much simpler analysis, namely, one in which there is no predicateraising at all, where clause-final <u>duoc</u> really is clause- or phrase-final at every point in the derivation. In fact, there are only two pieces of empirical evidence (to which I now turn) that potentially favour Simpson's control analysis over the null hypothesis (that is, no movement): all other arguments are driven by theoretical commitment.

4.1.4 Scope and Negative Polarity

Simpson's main empirical arguments against sentential subjects and in favour of the Control analysis both involve relative scope, but work in opposite directions. In (32) and (33) above, we saw that modal elements following the subject NP take scope over clause-final <u>dugc</u>, something which should not happen if the modal were contained within a sentential subject. Just the opposite is claimed to obtain in contexts of pre-verbal negation in Thai. Simpson claims that in a sentence such as (34), the Thai negation morpheme <u>mai</u> takes scope over the underlined material, excluding <u>dai</u>. This yields the interpretation [CAN [you NOT go]], rather than [NOT [you CAN go]], which would be expected if <u>mai</u> behaved like the modal verb in (33) above.

(34) khun mai pai kap khaw dai.

(Simpson 1998: ex. (23))

you NEG go with him can

"You can (choose) not (to) go with him."

This argument would indeed constitute good evidence for a predicateraising account if the data were more robust. Once again, I cannot address the Thai data directly; for Vietnamese, however, I have been unable to find any native speaker with judgments comparable to those for (34). As the examples in (35) show, all those consulted uniformly interpret equivalent Vietnamese structures as if negation takes scope over final $\frac{duqc}{duqc}$.

- (35) a. Anh không viết lá thơ được. PRN NEG write letter CAN "You cannot write the letter."
 - b. Cô ấy không ăn thịt được. PRN DEM NEG eat meat can "She cannot eat meat."
 - c. Tôi không đi được.
 PRN NEG go can
 "I'm unable to go." (because of circumstances that make it impossible)

This is not to say that the relative position of <u>không</u> has no effect on interpretation. The examples in (36) demonstrate the fact that <u>không</u> can either appear preverbally (the unmarked case), or postverbally immediately preceding <u>dược</u>: in the latter case, the reading is more emphatic, and is normally accompanied by some reason clause.¹⁶ However, the point here is that relative scope is not reversed: <u>không</u> is consistently interpreted as taking scope over <u>dược</u>. Notice also that in (36c) <u>dược</u> intervenes between the verb and the (generic) object NP.

(36) a. Tôi không ăn thịt được.

I NEG eat meat CAN "I can't eat meat." (due to unwillingness, lack of money, etc.)

b. Tôi ăn thịt không được. I eat meat NEG CAN "I (really) can't eat meat."

(physically incapable, perhaps strict vegetarian)

c. Tôi không ăn được thịt. I NEG eat CAN meat "I can't eat meat."

¹⁶ Simpson 1998: 6 implies that this latter position is the only possible position for sentential negation in Thai; indeed, this counts as one of his main pieces of evidence that clause-final <u>dai</u> is outside the Thai VP. This is clearly not true of Vietnamese: the preverbal order in (36a) is unmarked and fully natural, while the order in (36b) is only used in emphatic contexts.

This point is reinforced by the fact that pre-verbal <u>không</u> can license negative polarity items following <u>dược</u>. This is demonstrated by the examples in (37) as follows. First, the examples in (37a-d) show that the indefinites <u>ai</u> ('who') and <u>gì</u> ('what') must be interpreted as wh-expressions unless they are c-commanded by negation. Second, the interpretation of (37e-f) show that <u>không</u> has scope over <u>dược</u>. Finally, the interpretation of <u>ai</u> and <u>gì</u> as negative polarity items in (37g-h) shows that <u>không</u> also has scope over material following <u>dược</u>.

- (37) a. Anh viết lá thơ cho ai.
 PRN write letter for who
 "Who are you writing a letter for?"
 (*you are writing a letter for someone)
 - b. Anh làm gì cho anh ấy.
 PRN do what for PRN DEM
 "What are you doing for him?" (*you are doing something for him).
 - c. Anh không viết lá thơ cho ai.
 PRN NEG write letter for who
 "You are not writing a letter for anyone."
 (*Who are you not writing a letter for?)
 - d. Anh không làm gì (hết) cho anh ấy.
 PRN NEG do what at all for PRN DEM
 "You are not doing anything for him."
 (*What are you not doing for him?)
 - e. Anh không viết lá thơ cho ai được.
 PRN NEG write letter for who can
 "You cannot write a letter for anyone."
 (*You are able not to write a letter for anyone.)
 - f. Anh không làm gì cả cho anh ấy được. PRN NEG do what at all for PRN DEM CAN "You cannot do anything (at all) for him."
 - g. Anh không viết lá thơ được cho ai cả. PRN NEG write letter CAN for what at all "You cannot write a letter for anyone."

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h. Anh không làm được gì cả cho anh ấy. PRN NEG do CAN what at all for him "You cannot do anything (at all) for him."

The Vietnamese facts in (35-37) are not necessarily fatal to Simpson's proposed structure: there are at least two ways in which they might be accommodated. First, one might claim that Thai and Vietnamese negation differ precisely on where negation attaches: Thai sentences such as (34) would have the structure of (38a) below, with the negation morpheme <u>mai</u> within the raised VP; the corresponding Vietnamese sentence, for example (35a), would have the structure of (38b), in which negation is outside of the raised VP and above FocP.

(38) a.	[TP	khun _i	[MP [V	'P PRO ma	i pai kap	khaw] _i t	i dai ti]]]]
		PRN		NE	g go wit	h him	CAN
b.	[TP	Anh, [không	[MP [VP	PRO kiế	m việc], t,	$\underline{\text{duoc}} t_i]]]$
		PRN	NEG		finc	l work '	CAN

However, this move seems ad hoc at best, especially since it is just these relative scope facts that constitute the remaining piece of empirical evidence for the type of predicate raising that Simpson proposes.

4.1.5 On Pre-supposition and De-Focusing

As an alternative, it might be suggested that sentences such as (36c) and (37g-h) are derived by stranding generic or indefinite phrases (<u>thit</u>, <u>cho ai</u> and <u>gi</u>, respectively) in situ, and raising all other material to the higher [Spec, FocP] position. While such a move is technically feasible, and close to what Simpson proposes, it seems to run directly counter to the de-focusing principle proposed to motivate raising in other contexts. Simpson 1998: 22 writes :

Considering at least the northern dialects of Vietnamese and the position of the object, one seems to find the similar pattern which appears in Thai and Middle Chinese. There seems to be a heavy preference for indefinite non-focused objects to precede the potential modal and for focused DPs to follow it.

In support of this claim, Simpson cites the examples 81-82 reproduced in (39) and (40) below:

(39) a. Tôi lái xe được. I drive car can "I can drive cars."

b. ?tôi lái được xe. (cf. 36c)

(40) a. Ông ấy nói mọi tiếng được. PRN DEM speak every lge. CAN "He can speak all languages."

b. ??Ông ấy nói được mọi tiếng.

Simpson observes in a footnote (1988: fn. 12) that this contrast holds for speakers of Northern and Central dialects of Vietnamese, but not for Southern Saigonese speakers. Most of the speakers that I have consulted, who come from all three regions, do seem to detect a contrast. However, the explanation of this contrast seems to have more to do with heaviness in the sense of Heavy NP-Shift (HNPS) than with either definiteness or focus.

This is suggested by the fact that the judgements for (39) and (40) are reversed if the indefinite phrase is modified by an attributive adjective-phrase or relative clause: compare (41) and (42), respectively.

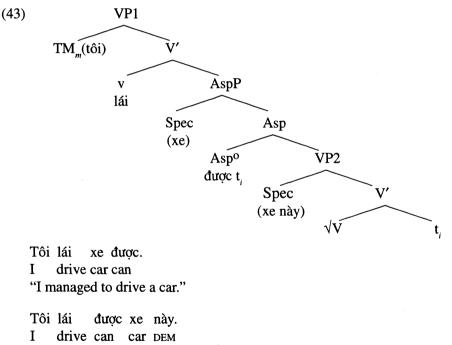
- (41) a. ??Tôi lái xe đắt tiền (và) có máy lạnh được. I drive cars expensive (and) have a.c. CAN "I can drive fast cars with airconditioning."
 - b. Tôi lái được xe đắt tiền (và) có máy lạnh.
 I drive can cars expensive (and) have a.c.
 "I can drive fast cars with airconditioning."
- (42) a. ??Ông ấy nói mọi tiếng tôi cũng biết được.¹⁷ PRN DEM speak all lge. I also know CAN He can speak every language that I know."
 - b. ??Ông ấy nói mọi tiếng mà người ta nói ở bên Nam được
 PRN DEM speak every lge. REL people speak in side South CAN.
 "He can speak every language that people speak in the South."
 - c. Ông ấy nói được mọi tiếng tôi cũng biết. PRN DEM speak CAN every lge. I also know "He can speak every language that I know."
 - d. Ông ấy nói được mọi tiếng mà người ta nói ở bên Nam. PRN DEM speak CAN every lge. REL people speak in side South "He can speak every language that people speak in the South."

¹⁷ This sentence is acceptable in the possible (though irrelevant) case where $\frac{duoc}{duoc}$ is analyzed as modifying the relative clause 'He speaks every language that I can know.' Similarly for (41b).

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Even if Simpson's hypothesis were correct, it would still be necessary to account for the grammars of those speakers who fail to show a contrast between (39) and (40). Moreover, it is clear that 'heaviness' itself calls for further explanation, though whether HNPS is a processing rule of some kind (see especially Hawkins 1995) or a reflex of grammar (following Stowell 1981, Larson 1988) is something that still needs to be resolved.

In fact, I believe that an analysis of certain instances of post-object \underline{duqc} in terms of a combination of verb-movement and object shift, something like (43), is warranted for Vietnamese, but I do not think that it holds for the *abilitative* \underline{duqc} under consideration here (see Duffield 1998, in prep. a, for discussion of *aspectual* \underline{duqc}). Under such an analysis, the lexical verb would move from its base position (\sqrt{V}) through Asp^o to v; object complements would move from [Spec,VP2] to [Spec,AspP].



"I managed to drive this car."

Notice that I present the *aspectual* interpretation of \underline{duqc} for these sentences (compare (39a) above); given what has been discussed thus far, I suppose that *abilitative* \underline{duqc} does not appear in this structure. If it did, though, we would still be left with one of the theoretical problems with which we began. The position of \underline{duqc} in (42) would no longer constitute a problem for Kayne,

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since this structure would conform with Antisymmetry requirements, but for Cinque 1998 this would still present a real difficulty, since abilitative (alethic) <u>durge</u> would now be appearing in a VP-internal position (albeit not in the minimal VP).

It seems, then, that in general the facts from the relative scope of negation in Vietnamese speak against any predicate raising analysis, rather than providing clinching evidence in its favor. One might still wonder, though, how the 'reversed scope' readings illustrated in (35) above, which Simpson obtained for Thai

and from some of his Vietnamese consultants, can be explained. I have presented evidence showing that in the general case in Vietnamese, normal scope obtains: <u>không</u> is interpreted as taking scope over <u>duợc</u>. If this is correct, then the explanation for the reversed scope readings cannot be structural in the way suggested by either the Control analysis in (19) or the sentential subject analysis in (17); that is to say, <u>không</u> cannot generally be contained within some raised phrasal constituent.

As an alternative, it can be suggested that reversed scope readings in Vietnamese are obtained in precisely the same way as in the English contrasts in (44) below: namely, negation can either be construed as sentential (the default case), where it takes scope over the modal, as in (43a); or as constituent (VP-) negation, in which case the modal element is interpreted as having wider scope, as in (43b). In these examples, the following clause provides further indication of the scope of negation.¹⁸

(44) a. He can't (always) eat (when he wants to).

b. He can (always) not eat (if he doesn't want to).

On the basis of the foregoing discussion, I conclude that at least for Vietnamese, there are no empirical arguments that support the Control analysis in (19) over the null hypothesis in the general case. Furthermore, I conclude that to the extent that there is any predicate-raising going on in Vietnamese, the simpler sentential subject account provides a better analysis of the relevant facts. Of course, granting this conclusion returns us to the problem that inspired the predicate-raising analyses in the first instance; namely, that if <u>duoc</u> really is subject to the principles of adverb placement found in other languages, it would seem to present a challenge to the idea that adverb placement is universally fixed. Since this proposal has considerable theoretical and empirical support, we need to find a way out of this bind.

¹⁸ It is admittedly unclear whether such an explanation would carry over to Thai, where the judgements as reported appear to be more categorical than in Vietnamese: more work would need to be done to determine the constraints on (and the relationship between) constituent and sentential negation in that language.

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4.1.6 Discussion

Before sketching an alternative analysis, I can briefly summarize the paper thus far. In a number of areally-related South East Asian languages, a modal element corresponding to English *can* unexpectedly appears in post-verbal position, usually clause-finally. The distribution of this element is unexpected because of two universalist assumptions about phrase-structure. First, that heads uniformly appear to the right of their complements (Kayne 1995); second, that modal, temporal and aspectual elements are universally realized in a fixed hierarchical order (Cinque 1998). Specifically, the relevant claim is that all modals (but especially epistemic and alethic modals) necessarily c-command the VP: given the first assumption, this requires that modals should appear to the left of the VP underlyingly.

In two previous treatments of this rightward-modal problem, appeal is made to some form of predicate-raising to derive the marked surface order. However, both analyses fail in certain crucial respects. The sentential subject analysis of Duffield 1998 fails to explain the following facts: 1° in the unmarked case, the rightward modal is interpreted as abilitative, rather than epistemic; 2° the supposed sentential subject freely allows extraction (in contrast to other sentential subjects where extraction or relativization is blocked); and 3° other pre-verbal modal elements take scope over the final modal, (which should not happen if these modals are contained within a sentential subject).

Simpson's 1998 analysis was shown to be unsatisfactory, for Vietnamese at least, for a different set of reasons. These include the following: 1° in certain contexts, the final modal can be interpreted epistemically; 2° the final modal can appear in certain constructions with its own (immediately preceding) tense morpheme; 3° the main piece of scope-related evidence for predicate-raising makes the wrong predictions for Vietnamese with respect to relative scope and to the licensing of NPIs following a final modal; 4° the semantic motivation for predicate raising that Simpson proposes makes incorrect predictions, when compared to a processing account in terms of heaviness.

5. An alternative Approach to licensing rightward elements

5.1 Underlying Hierarchies and Surface Representations

The way out of the universalist problem, I suggest, is to question the assumption that universal conditions such as Antisymmetry or constraints on

adverb placement apply to <u>all</u> surface elements in a given sentence. This assumption seems in any case suspect under a minimalist approach, where surface outputs are in some sense accidental or contingent properties of the particular derivation (Chomsky 1995). Surface distributions are contingent in the sense that particular word-orders at Spell-Out are primarily determined by the abstract syntactic features of the elements in the numeration, rather than by underlying universal hierarchies. So, for example, whether one observes SOV, SVO, or VSO word-order in a language is taken to be determined by the PFrequirements of verbs or DPs in a given numeration. Implicit in most current minimalist discussions is the idea that only this subset of lexical items (the extended projections of theta-assigning heads and their associated (DP) arguments) bears the sorts of features that force movement. Again by implication, the distribution of lexical items without such features is determined by other factors.¹⁹

Adopting such a view, however, does not imply abandoning the idea of universal hierarchies, although it does imply that surface representations may not always reliably reflect such hierarchies. Standardly, it is assumed that universal hierarchies are respected underlyingly even if the surface exponents of these categories appear in unexpected positions. To cite a simple example from English, tense morphemes (the surface exponents of T^o) are observed clearly within the VP at Spell-Out. This does not force the conclusion that TP is VP-internal functional category; rather, the general conclusion is that the relevant features of tensed verbs are checked after, rather than before Spell-Out.

The closest relevant analogy to Cinque's adverbial hierarchy are the various thematic hierarchies that have been proposed, among which Baker's 1985, 1988 UTAH (Uniformity of Theta Assignment Hypothesis) is probably the best known (cf. also Rosen 1984, Grimshaw 1990). In almost every thematic hierarchy, the highest thematic relation is that of AGENT: there seems to be broad consensus that elements interpreted as bearing agent theta-roles are projected relatively high or merged relatively late, under a derivational approach.²⁰ In spite of this, elements obligatorily interpreted as agents in passive constructions, namely agentive <u>by</u>-phrases, typically appear to the right of all other arguments; indeed, they usually appear clause-finally.

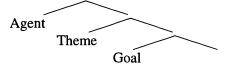
¹⁹ Such factors may be grammatical (the c-command relation is the clearest instance of this) or have other sources: parsability and iconicity also appear to be likely candidates.

²⁰ This is true independently of whether thematic roles are considered as primitives (Rosen 1984) or derivative of phrase-structural or conceptual configurations (Jackendoff 1990, Baker 1995).

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If one considered only the surface word-order of long passives, as in analysis (46a) below, <u>by</u>-phrases should pose a clear empirical challenge to UTAH, in just the same way as <u>duoc</u> apparently challenges the Cinque hierarchy. However, the standard view of <u>by</u>-phrases, which I suppose to be correct, is that they are not real counterexamples to the thematic hierarchy. In an analysis such as that of Baker, Johnson and Roberts 1989, long passives are analyzed as respecting UTAH in that the element which receives the theta-role, and which licenses the adjunct <u>by</u>-phrase (namely the passive morpheme <u>en</u>) correctly c-commands other positions to which theta-roles are assigned. That is to say (46b), rather than (46a), is the correct thematic description. Under this description, the fact that the <u>by</u>-phrase itself violates UTAH is irrelevant: what is important is the position of the licensing head.

(45) UTAH Baker 1988; cf. Grimshaw 1990, Rosen 1984



(46) The reckless driver, was given a life sentence t_i by the harsh judge. a. G T A

а.	G	1		
b.		ΑΤ	G	
cf. Baker, Johnson and Roberts 1989				

Consequently, the surface position of <u>by</u>-phrases is determined not by hierarchical constraints, but rather through the interaction of other grammatical and extragrammatical principles, including processing constraints: see Frazier 1987, Frazier and Fodor 1978, Hawkins 1995. As the examples in (47) are intended to show, <u>by</u>-phrases appear in a variety of (postverbal) positions depending on relative heaviness.

- (47) a. ?The reckless driver was accused of conduct likely to endanger life by the state prosecutor.
 - b. The reckless driver was accused by the state prosecutor of conduct likely to endanger life.
 - c. The defendant was given a life sentence yesterday by the judge/by the judge yesterday.
 - d. ??The defendant was given a life sentence the day before yesterday in Montreal by the judge.
 - e. The defendant was given a life sentence the day before yesterday in Montreal by the presiding judge specially appointed to this case.

Precisely the same arguments can be applied to rightward $\underline{\alpha}\underline{u}\underline{\alpha}\underline{c}$ in Vietnamese. All that is required is that we find evidence of a licensing head in the position predicted by the Cinque hierarchy: for the epistemic reading of $\underline{\alpha}\underline{u}\underline{\alpha}\underline{c}$, this head should appear above TP; for the (more usual) abilitative reading, it should appear between TP and VP.

(48) epistemic modals > tense > deontic modals > alethic modals> aspectuals> VP

It turns out that Vietnamese provides exactly the right type of element with just the right distribution. This is the complex modal element co thể that we have seen in a number of examples up to now. Có thể appears in two preverbal positions, preceding the subject, or immediately preceding the verb. In the former position, it is interpreted only epistemically; in the latter position, the preferred interpretation is abilitative, although the epistemic reading is also available in certain contexts. Crucially, for every sentence in this paper that contains clause-final <u>durge</u>, except for the sentential subjects contexts, there is a completely synonymous sentence with pre-verbal <u>có thể</u> added. Representative examples are repeated below:

- (1') a. Ông Quang có thể mua cái nhà (được).
- (14') a. Tôi có thể kiếm việc (được).
- (33') a. Anh có thể phải nói tiếng Việt một ít (được).
- (35') a. Anh không thể viết lá thơ (được).
- (36') a. Tôi không thể ăn thịt (được).
- (37') g. Anh không thể viết lá thơ (được) cho ai cả.
- (39') a. Tôi có thể lái xe (được).

Whenever <u>có thể</u> is present in this position, <u>dược</u> is licensed, but wholly redundant; Vietnamese speakers prefer to omit it in just the same way as English speakers prefer to omit redundant by-phrases, such as 'by someone'.

If we now assume that the abilitative/alethic modal in Vietnamese is \underline{co} thể and that \underline{duoc} is simply parasitic on the position occupied by \underline{co} thể, just as by-phrases are parasitic on the head bearing the Agent theta-role, we solve the Cinque hierarchy problem without resort to predicate raising.

5.2 Some Empirical Advantages

5.2.1 Cinque's 1988 hierarchy reconsidered

Aside from being conceptually and technically much simpler, this analysis has a number of empirical advantages: by shifting the focus from \underline{duqc} to its

licensing head <u>có thể</u>, Vietnamese turns out to directly support Cinque's hierarchy, rather than challenging it. First of all, as just mentioned, <u>có thể</u> can appear in pre-subject position. As Cinque's hierarchy predicts, the only possible interpretation in this position is epistemic:

(49) Có thể	anh	ấy	đến	(được).	
CAN	PRN	DEM	come	(CAN)	
"It is p	ossib	le tha	t he w	vill come."	*He is able to come.

Second, <u>có thể</u> actually appears in two postsubject positions, rather than one. In sentences containing <u>có thể</u> and another modal element <u>phải</u>, <u>có thể</u> may either appear above or (marginally) below the deontic modal <u>phải</u>. This is illustrated in (50a) and (50b), respectively. If <u>có thể</u> appears higher than the modal, as in (50a), only the epistemic reading is available; conversely, placing <u>có thể</u> below <u>phải</u>, as in (50b), yields only the abilitative reading. If we now further assume, as seems plausible, that epistemic <u>có thể</u> functions as a (subject) raising predicate, we can assimilate sentences (50a) with its unraised variants: (49) and (50c). In this way, Vietnamese can be shown to exhibit precisely the split in modal functions predicted by Cinque's hierarchy.

(50) a.	Anh ấy có thể phải đến.	
	PRN DEM CAN DEM COME	
	"It is possible that he must come."	*He must be able to come.
b.	?Anh ấy phải có thể đến.	
	PRN DEM MUST CAN COME	
	"He must be able to come."	*It is possible that he must come.
c.	Có thể anh ấy phải đến. can PRN DEM must come	
	"It is possible that he must come."	*He must be able to come.

5.2.2 Possible extensions

A second advantage of this indirect licensing approach to final <u>duoc</u> is that the same licensing mechanism is independently required for other phrasefinal and clause-final elements in Vietnamese. These include the interrogative use of the negation marker <u>không</u>, which as we saw in (10), is used to signal Yes/No questions; (10b)-(10c) are repeated below for convenience. The natural assumption in this case is that final <u>không</u> is syntactically licensed by the preverbal assertion head <u>có</u>; more precisely, <u>không</u> is licensed by the [+wH] feature of this head (cf. Rizzi 1990, Roberts 1993).²¹ The alternative, implicitly adopted by Cheng 1997 and others for languages such as Chinese, is to assume that the Q-marker itself is a rightward C^o head; as was the case with <u>duoc</u>, this is a highly unintuitive conclusion, especially given the clause-initial distribution of other complementizer elements in Vietnamese.

- (10') b. Hôm qua anh (có) đến nhà chị không? yesterday PRN ASR go house PRN Q "Did he go to your house yesterday?"
 - c. Anh (có) đi về Việt Nam không? PRN ASR go return Vietnam Q "Did he return to Vietnam already?"

5.2.3 Additional non-syntactic factors

Finally, by setting aside purely syntactic explanations for the distribution of final \underline{duqc} , it becomes easier to take account of other non-syntactic properties that may better explain its distribution. Although more work needs to be done to determine this, my intuition is that the distribution of \underline{duqc} is determined by two factors. The first appears to be a universal processing constraint that prefers to maximize immediate constituent recognition domains by re-arranging and extraposing heavy material to the right of lighter elements (Hawkins 1995). According to this principle, an optional adverbial such as \underline{duqc} will tend to appear on the right periphery following obligatory arguments, *unless* these latter elements are so heavy that they extend the constituent recognition domain for the clause.

The second constraint governing the distribution of <u>duoc</u> is languageparticular, and has to do with tone and tonality. Northern Vietnamese has six tones (including the neutral tone): high (á), low (à), low rising (ả), high broken (ã), and low broken (ạ). <u>Duoc</u> is an example of a low broken tone word (nặng). In general, it seems that a declarative sentence is considered 'better balanced' if two phonetic conditions are met. The first is that declaratives should end with a low or low broken tone: the majority of sentence-final particles (<u>mà, à,</u> <u>a</u>, etc.) bear one of these two lexical tones. The second condition is that a sequence of high or high broken tone interrupts the sequence. Of course, these

²¹ The analysis can also be extended to final question tags: <u>phải không</u>, *isn't it?* and <u>nhé</u> (Duffield in prep. b).

are only preference rules which depend on the particular lexical items chosen; in many instances, there is no choice but to use a disprefered sequence. Nevertheless, where the choice exists, it seems to affect the position of \underline{duoc} , as the rankings in (51) illustrate; in the unmarked case, they favor \underline{duoc} on the right periphery.

(51) a. Tôi không nói được tiếng Pháp \rightarrow Tôi không nói tiếng Pháp được. Η LB Η Η Н Н Н LB speak CAN lge. French Ι NEG "I cannot speak French." b. Tôi không ăn được cá \rightarrow Tôi không ăn cá được. N H LB N LB Η "I cannot eat fish."

c. Tôi không ăn được thịt = Tôi không ăn thịt được. N LB LB N LB LB I NEG eat can meat "I can't eat meat."

6. Conclusion

In this paper, I have examined the empirical evidence for a syntactic approach to a particular clause-final modal element in Vietnamese. The conclusion of this investigation is that a purely syntactic approach receives little empirical support in Vietnamese, though it is still possible that it may be correct for Thai or for earlier stages of the language, about which I have little to say. The alternative account proposed here remains for the most part syntactic, but explains the distribution and interpretation of <u>duoc</u> representationally in terms of c-command, rather than through appeal to complex movement. In addition, it is suggested that general processing factors, as well as language-specific phonological factors may contribute to a complete account of this phenomenon.

It seems that this is a case where excessive prior commitment to a particular theoretical position –rather than helping researchers to make sense of the data–has led to unwarranted complexity in grammatical description. This is hardly an isolated case, I think, for it is always tempting, and often invaluable, to be

directed by a strong and predictive theoretical framework. The trick, as usual, is not to resist temptation, but to avoid (literal) seduction.²²

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²² There is a personal irony in this conclusion: I have been driven by theoretical commitment to Antisymmetry not only with respect to Vietnamese (in Duffield 1998) but also with respect to pronoun-postposing in Irish (Duffield 1995); in the latter case, Adger 1997 provides the necessary corrective.

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