

# Head-First: On the head-initiality of Vietnamese clauses\*

Nigel Duffield

University of Sheffield

## Abstract

This paper provides a detailed analysis of complementizer-like elements on the left and right periphery of Vietnamese clauses, comparing these with their counterparts in other East Asian varieties, as well as in more familiar Western European languages. The focus of the study is on the derivation of Yes-No questions in Vietnamese, which—in contrast to constituent questions—exhibit a number of theoretically significant co-occurrence constraints, including a ban on negative, topicalized and future tense questions. Re-interpreting a more traditional, descriptive treatment (Nguyen 1997), this paper explains these distributional constraints through a derivational analysis involving predicate-raising around sentence-medial functional heads (cf. Kayne 1994). Implications of this analysis for other apparent rightward heads in Vietnamese—as well as for Chinese—are also considered.

Keywords: Complementizers; CP Structure; Negation; Tense-Aspect Interactions; Yes-No Questions; Topicalization; Head-Initial vs. Head-Final

## 1. Introduction

This paper is concerned with the analysis of functional morphemes in Vietnamese that surface on the right edge of interrogative clauses, specifically, the negative

morphemes *không* ('not') and *chưa* ('not yet') illustrated in (1a) and (1b), respectively.<sup>12</sup>

(1) a. *Chị có mua cái nhà không?*  
PRN ASR buy CL house NEG  
'Did you (elder sister) buy (the) house?'

b. *Con đã uống thuốc chưa?*<sup>3</sup>  
PRN ANT drink medicine not.yet  
'Have you (child) taken your medicine yet?'

These elements, which have been treated previously in generative work (see for example, Duffield 1999, 2007; Trinh 2005), attract attention not only in virtue of their unexpected syntactic distribution—rightward heads in an otherwise rigidly head-initial language—but also because of how they interact with other functional categories, in ways that suggest a more complex derivational history. Among the surprising interactions that this paper considers are the impossibility of negative Yes-No questions, exemplified in (2a), and the incompatibility of final *không/chưa* with preverbal topic and (future) tense markers, illustrated in (3a) and (4a), respectively.

(2) a. *\*Anh ấy không đến không?*  
PRN DEM NEG come NEG  
'Isn't he coming?'

- b. *Anh ấy không đến.*  
 PRN DEM<sup>2</sup> NEG come  
 ‘He isn’t coming.’
- c. \**Con chưa uống thuốc chưa?*  
 PRN not.yet drink medicine not.yet  
 ‘Haven’t you [child] taken your medicine yet?’
- d. *Con chưa uống thuốc.*  
 PRN not.yet drink medicine  
 ‘You [child] haven’t yet taken your medicine.’
- (3) a. \**Xã bên thì ruộng tốt không?*  
 village side TM rice field good NEG  
 ‘(As for) the neighboring village, are its rice-fields good (fertile)?’
- b. *Xã bên thì ruộng tốt.*  
 village side TM rice field good  
 ‘(As for) the neighboring village, its rice-fields are good (fertile).’
- (4) a. \**Vợ anh sẽ (có) làm việc ở Paris không?*  
 wife PRN FUT ASR work be.loc Paris NEG  
 ‘Will your wife work in Paris?’
- b. *Vợ anh sẽ làm việc ở Paris.*  
 wife PRN FUT work be.LOC Paris  
 ‘Your wife will (indeed) work in Paris.’

There are three points to observe immediately concerning these examples. The first is the rather obvious fact that the final interrogative morpheme *không* in the (a) examples is formally identical to the sentential negation morpheme found in declarative clauses—except for its distribution: clausal negation in Vietnamese is strictly pre-verbal, occurring in a fixed position between Tense and the main verb, such that final placement of *không/ chưa* in declarative clauses to express negation is ungrammatical. This is shown by the contrasts in (5) and (6):

(5) a. *Anh không khỏe.*

PRN NEG well

‘You [older brother] are unwell.’

b. *Chị không mua cái nhà.*

PRN NEG buy CL house

‘You [elder sister] did not buy (the) house.’

c. *Con chưa uống thuốc.*

PRN not.yet drink medicine

‘You [child] have not taken your medicine.’

(6) a. *Anh khỏe không.*

PRN well NEG

**cannot mean** ‘You [older brother] are unwell.’

b. *Con uống thuốc chưa.*

PRN drink medicine not.yet

**cannot mean** ‘You [child] have not taken your medicine.’

As shown in (7), *không/chưa* also occurs unambiguously as an emphatic negative in the corresponding responsive constructions:

- (7) a. *Anh có khỏe không? A: Không! (Tôi không khỏe lắm.)*  
 PRN ASR well NEG NEG PRN NEG well very  
 ‘Are you [older brother] well? A: ‘No! (I’m not very well.)’
- b. *Chị có mua cái nhà không? A: Không, (tôi không mua.)*  
 PRN ASR buy CL house NEG NEG I NEG buy  
 ‘Did you [elder sister] buy (the) house?’ A: ‘No, I didn’t (buy it.)’
- c. *Con đã uống thuốc chưa? A: Chưa!*  
 PRN ANT drink medicine not.yet not.yet  
 ‘Have you [child] taken medicine yet?’ A: ‘Not yet!’

The second point of these examples is that Yes-No questions marked by simple *không* are generally restricted to unselected root clauses, unless—as discussed below—the complement clause is introduced by the leftward complementizer *liệu* (8a): as shown in (8b), for example, embedded Yes-No questions are normally signaled by a subtly different device, namely, *hay không* (‘or not’), which—like the other forms of tag question discussed further below—exhibit a distinct set of co-occurrence restrictions.

(8) a. *Cô gái hỏi [liệu cô có thể đi đến bữa tiệc được không].*

PRN girl ask LIEU PRN ASR possibility go arrive party can NEG

‘The girl asked if she could go to the party.’

b. *Cô giáo hỏi các em sinh viên có tham gia chuyến đi hay không.*

PRN teacher ask PL PRN student ASR intention trip go or NEG

‘The teacher asked whether the students were going on the trip.’

The third, less obvious, point concerns a contrast in co-occurrence restrictions between the future/irrealis morpheme *sẽ*—illustrated in (4) above, which is incompatible with final *không*—vs. the “anterior” morpheme *đã* exemplified in (1b), and (9) below, which is fully compatible with final *chưa*.<sup>4</sup> Indeed, the standard structuralist assumption has been that Yes-No questions are formed by means of two parallel “brace constructions” in which the pre-verbal morphemes and *có* and *đã* — the former glossed ASR (for assertion) in (1a), following Duffield (2007)—are paired with final *không* and *chưa*, respectively: according to this brace analysis, schematized in (9), simple Yes-No questions involving only final *không/chưa*—that is, with no medial element—are derived through the optional omission of the pre-verbal element, in a manner apparently very similar to the omission of preverbal *ne* in negative sentences in many varieties of spoken French, as in (10).

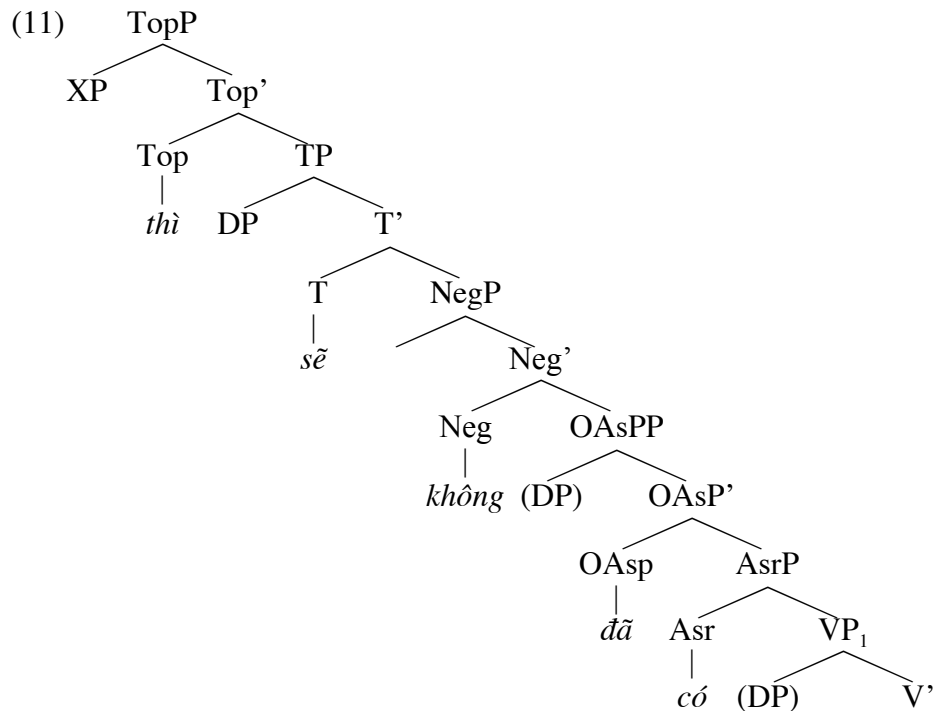
- (9) a. [(*có*).....VP... *không*]  
 b. [(*đã*)...VP... *chưa*]
- (10) *Elle (ne) voit pas son fils.*  
 PRN NEG see NEG her son  
 ‘She does not see her son.’

The discrepancy between the two pre-verbal morphemes is unexpected—and largely inexplicable—if *đã* and *sẽ* are both exponents of tense, as has often been claimed in the descriptive literature (see, for example Nguyen 1997; Lo Cicero 2001; amongst others); there would seem to be no reason why one should be able to ask past tense Yes-No questions using this construction, but not future tense ones. On the other hand, the contrast can be explained if one assumes that the two morphemes are initially projected in distinct structural positions, as will be argued presently: see also Duffield and Phan (2010).

The aim of the present study, therefore, is to offer a syntactic analysis of Yes-No questions that simultaneously derives these effects, and which reconciles the surface position of these sentence-final question markers with the strictly head-initial character of Vietnamese phrase-structure more generally. The empirical claim will be that Vietnamese is in fact head-initial throughout (up to and including the CP level), and that the surface distributions in (1) as well as the constraints illustrated in (2)-(8) reflect a series of complex derivational steps involving predicate-raising around leftward heads.<sup>5</sup> Furthermore, it will be argued that the derivation of the surface word-order of Yes-No questions differs in crucial respects from that of constituent wh-questions; lastly, it will be shown how the syntactic and interpretive behaviour of the

anterior morpheme *đã* provides additional support for the projection of aspectual morphemes in a position below negation but above the maximal *vP*, that is, the position labelled “Outer Aspect” in Travis (1991, 2010).

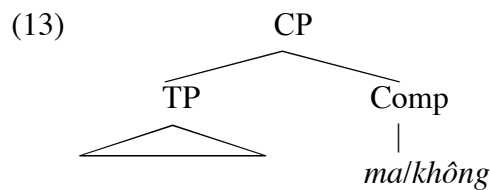
The functional phrase structure implied by this proposal is diagrammed in (11), which is very similar that of Travis (2010), the only modifications being the addition of a Topic Phrase projection to accommodate the topic-prominent nature of Vietnamese syntax—see also Cao (1991), Duffield (1999)—and the relabelling of E(vent) P(hrase) as *AsrP*, to be consistent with Duffield (2007). Notice in this tree, Vietnamese morphemes are realized at the point of initial merger:



Our starting point, however, will be the null hypothesis about Vietnamese, namely, that it is fundamentally similar in structure to its areal and typological neighbour, Chinese. If this were the case, then Yes-No questions such as those in (1) should be treated on a par with the corresponding Yes-No (and *wh*-) questions in Mandarin exemplified in (12) (from Cheng 1997), which—superficially at least—

display identical word-orders. Translating Cheng’s (1997) analysis to Vietnamese, *không/chưa* would be thus treated as Q-markers in a rightward (head-final) Comp position, as schematized in (13):

- (12) a. *Nǐ xǐhuan zhè běn shū ma?*  
 you like this CL book Q  
 ‘Do you like this book?’
- b. *Qiáofēng mǎi-le shénme ne?*  
 Qiaofeng buy-perf what Q<sub>WH</sub>  
 ‘What did Qiaofeng buy?’



The theoretical problems with such a translation, however convenient, should be obvious. In the first place, it offends against the otherwise rigidly head-initial character of Vietnamese phrase-structure; second, it offers no possibility of accounting for the contrasts just introduced. Most significantly perhaps, there is a considerable amount of direct empirical evidence that speaks against it.

The argument to be developed runs as follows. First, it will be established that Vietnamese has leftward complementizers in other clausal contexts, including interrogative complementizers in indirect questions: such facts offer clear distributional evidence against the idea that these rightward elements are exponents of a head-final CP. Next, it will be demonstrated that these final elements are not tags, or

other extra-sentential markers: Vietnamese does have productive tag questions, which are superficially very similar to Yes-No questions; however, these display none of the constraints illustrated above. These apparently contradictory findings—that Vietnamese has leftward complementizers, and that final Q-elements are nevertheless integrated functional heads—together support the Kaynian conclusion that head-final word-order in Vietnamese interrogatives should be derived through predicate-raising (Kayne 1994, and subsequent work): the analysis proposed in the final section analyzes the observed word order facts in this fashion, while directly accounting for the interpretive and morphological constraints. This analysis is also shown to make the correct cut between the two pre-verbal morphemes, a distinction that is independently motivated by the semantic and interpretive properties of *đã*: (see Trinh 2006; Duffield and Phan 2010). Finally, I consider the implications of this analysis for other apparent exceptions to head-initiality in Vietnamese—in particular, for the status of final modal *được* (Duffield 1999, 2001) and the demonstrative morphemes *này/ấy/kia* ('this/that/yon', cf. Nguyen 2009), as well as for broader parametric proposals, including Cheng's (1997) Clausal Typing Hypothesis.

## 2. Leftward complementizers

One of the most basic considerations against the idea that these sentence-final elements occupy a rightward Comp position is the fact that Vietnamese is otherwise a radically head-initial language. The examples in (14) and (15) below illustrate various ways in which Vietnamese is head-initial in its canonical word order, not simply with respect to head-complement order, but also with regard to most other head-modifier relations: the examples in (14) show that transitive verbs, prepositions, (complement-

taking) nouns and adjectives, and most T-related elements precede their phrasal complements; those in (15) demonstrate the fact that attributive adjectives, (restrictive and non-restrictive) relative clauses, adjunct clauses, prepositional phrases, and even noun-modifiers in Noun-Noun compounds (15e), all invariably follow the head of the phrase they modify:

- (14) a. *Tôi chỉ* [<sub>VP</sub> *mua hai trái cam thôi*].  
 I only buy two CL oranges at.all  
 ‘I only bought two oranges.’
- b. *Bếp nằm* [<sub>PP</sub> *ngay sau lều ngủ*].  
 kitchen directly behind tent sleep  
 ‘The kitchen is directly behind the sleeping tent.’
- c. [<sub>NP</sub> *Giả thuyết [trái đất phẳng]*](*thì*) *dễ bác bỏ*.  
 belief earth flat TM easy disprove  
 ‘The belief that the earth is flat is easy to disprove.’
- d. *Người đàn ông* [<sub>AP</sub> *rất tự hào về con gái mình*]  
 person man very self proud about CL girl own  
 ‘a man very proud of his daughter’
- e. *Mẹ tôi* [<sub>TP</sub> *đã mua*] *và chúng tôi trở về nhà*.  
 mother I ANT buy CONJ plural I return house  
 ‘My mother bought (it) and we returned home.’

- (15) a. *Một người rất thông minh*  
 one person very intelligent  
 ‘A very intelligent person’
- b. *Quyển sách [ mà anh thích nhất ] thì bán chạy.*  
 CL book RM PRN like most TM sell run  
 ‘The book that you like most is selling well.’
- c. *Người phụ nữ hài lòng [ vì đã quyết định sáng suốt ].*  
 person woman happy because ANT decide clearly  
 ‘The woman was happy because the right decision had been made.’
- d. *mẹ của tôi*  
 mother POSS I  
 ‘my mother’
- e. (i) *sân bay* (ii) *sân bóng*  
 ground fly ground ball  
 ‘airport’ ‘football ground’
- (iii) *máy bay* (iv) *máy in*  
 machine fly machine print  
 ‘plane’ ‘printing press’

Given this overwhelming head-initiality,<sup>6</sup> it would be surprising if regular clausal complements in Vietnamese were not also head-initial, even if Vietnamese were like Mandarin Chinese in possessing no overt complementizers.<sup>7</sup> As it happens though, it does.

## 2.1. Complementizers in declarative contexts

In embedded declarative clauses, the two most plausible candidates as complementizers are initial *rằng* and *là*, the former largely restricted to formal written registers, the latter more commonly found in colloquial registers, and homophonous with the identificational copula. The sentences in (16) illustrate typical examples of verbal sentential complements. In all of these cases, either *rằng* or *là* may introduce the embedded clause, depending on the register:<sup>8</sup>

- (16) a. *Ông ta nói rằng/là công việc không thích hợp với ông ta.*  
PRN say COMP work NEG suitable with PRN  
'The man said that the job was unsuitable for him.'
- b. *Chánh Án Froeberg nói [rằng ông đưa ra hai bản án tối đa ...]<sup>9</sup>*  
Chief Justice Froeberg say COMP PRN hand out two sentence max...  
'Chief Justice Froeberg said that he handed out the two  
maximum sentences...'
- c. *Tôi mong-ước là/rằng mình có thể có ngọn đèn như thế.*  
I wish COMP self can possess lamp like so  
'I wish that I had a lamp like that.'

- d. *Sau khi biết là tôi biết chuyện, chị đã chủ động gọi*  
 after time know COMP I know story, PRN ANT active call  
*điện cho tôi...*  
 phone give I  
 ‘After (she) knew that I knew, she actively phoned me...’
- e. *Hôm qua anh ấy nói là mai anh ấy không đến được.*  
 yesterday PRN DEM say COMP tomorrow PRN DEM NEG come CAN  
 ‘He said yesterday that he would not be able to come tomorrow.’

The examples in (17) confirm that Vietnamese permits multiple-embedding with either element, such recursion being a further indication that these are complementizers of the familiar sort:

- (17) a. *Tôi nghĩ [rằng các bạn sẽ nói [rằng tôi được hưởng một nền giáo*  
 I think COMPPL friend FUT say COMP I can inherit one education  
*dục tốt đẹp nhất [mà tiền bạc có thể mua được. ] ]*  
 good beautiful most RM money can buy can  
 ‘I guess that you could say that I had the best education that money can buy.’
- b. *Tôi chắc là chị ấy sẽ cho là chị ấy đã không phạm*  
 I sure COMP PRN DEM FUT give COMP PRN DEM ANT NEG make  
*sai lầm nào cả.*  
 error at all.  
 ‘I am sure that she will consider that she made no mistakes at all.’

## 2.2. Interrogative Complementizers

Turning now to interrogative complement clauses, the expectation is that Vietnamese should have leftward complementizers here too: if this is the case, then it would seem to strongly militate against the idea that *không* and *chưa* are in C. Consider therefore the examples in (18) (partially repeated from 8):

(18) a. *Cô giáo hỏi các em sinh viên có tham gia chuyến đi hay không.*

PRN teacher ask PL PRN student ASR intention trip go or NEG

‘The teacher asked whether the students were going on the trip.’

b. *Người đàn ông tự hỏi [ liệu cô bồ có ở lại với*

person man self ask LIEU PRN friend ASR be.loc stay with

ông ấy (hay không)].

PRN DEM or NEG

‘The man wondered whether (or not) his girlfriend would stay with him.’

c. *Cô gái hỏi liệu cô có thể đi đến bữa tiệc được không.*

PRN girl ask LIEU PRN ASR possible go arrive party can NEG

‘The girl asked if she could go to the party.’

With the exception of (18a), the two other indirect questions in this set are introduced by the element *liệu*.<sup>10</sup> According to Trang Phan (personal communication), these sentences are less natural whenever *liệu* is omitted. Given its distribution and

functional role, the most obvious analysis of this element is as a clausal-typing complementizer, similar to English *whether/if*.

The crosslinguistic parallel is not quite complete in that *liệu* is compatible with the complementizer *rằng*, as shown in (19) below. However, this is hardly a serious objection to the claim that *liệu* is a [+wh] C-related element, for it has frequently been observed that the exclusion of *\*whether + if/that*—previously handled in terms of the Doubly-Filled Comp Filter (DFCF; cf. also Bayer and Brandner 2008)—is a relatively recent constraint in the history of English: earlier varieties of English permitted this, and the collocation is attested in other languages, including Dutch, as in (20b-c):<sup>11</sup>

(19) *Tôi đã sa thải họ. Liệu rằng tôi làm thế có đúng không?*

I ANT dismiss PRN. LIEU COMPI do that ASR right NEG

‘I have dismissed them. Did I do the right thing?’ (*lit.* whether I did that, was it right?)

(20) a. *men shal wel knowe **who that** I am.* (Middle English)

b. *Hij vroeg **of dat** ik het wilde.* (Colloquial Dutch)

he asked if that I it wanted

‘He asked if I wanted it.’

c. *Ik vraag hem of hij zich verslapen heeft of dat hij ziek is.*

(Standard Dutch)<sup>12</sup>

I ask him if he REFL overslept has if that he ill is.

‘I asked him whether he overslept or whether he is ill.’

Therefore, it seems warranted to claim that *liệu* is a C-related element of some kind, though perhaps a specifier rather than a head, given its co-occurrence with *rằng*. If this is correct, it offers further evidence against the idea that final *không* occupies C in any context.<sup>13</sup>

Notice finally that it is quite possible to embed a Yes-No question within a Yes-No question, yielding a double occurrence of final *không*, as exemplified in (21) below (though as noted earlier, it is preferable to signal the embedded question by means of a preceding *hay* ‘or’):

(21) a. *Nó có hỏi mày có về nhà (hay) không không?*

PRN ASR ask PRN ASR return home or NEG NEG

‘Did he ask whether you went home (or not)?’

Summarizing this section, there seems to be robust distributional evidence to support the view that Vietnamese CP projections are head-initial in both declarative and interrogative complement clauses, consonant with the head-initial character of the other constituent phrases that were illustrated in (14) and (15) above. In the light of this, the strong implication must be that rightward *không* and *chưa* occupy some other phrase-structural position.

### 3. Analyzing the right periphery

If the evidence of the previous section implies that *không* and *chưa* are not in C, the question arises as to their correct analysis. The next subsection considers—and rejects—two straightforward analytic possibilities: first, that final *không* and *chưa* are extra-sentential elements; second—more plausibly perhaps—that they are sentential tags.

#### 3.1.1. Final *không* as extra-sentential discourse marker

The notion that these elements might be extra-sentential (possibly extra-grammatical) morphemes, on a par with the final discourse particles exemplified in (22) below, is schematized in (23). Were this the case, their right-peripheral position would present no challenge to the assertion that Vietnamese phrase-structure is consistently head-initial; but neither would it be a theoretically interesting solution.

(22) a. *thế à?*

fact Q

‘Is that so?’

b. *Anh đang làm gì thế ạ?*

PRN PROG do what Q POL

‘What are you doing?’

c. *Tôi đã bảo là tôi đi câu cơ mà!*<sup>14</sup>

I ANT say COMP I go fishing EXCL

‘I already told you that I’m going fishing!’

(23) [CP ..... ] *không*?

The idea that morphemes such as those in (22)—and their correlates in other languages—should be analyzed as extra-syntactic may be controversial (see note below), but it is by no means unprecedented in formal analysis.<sup>15</sup> Most relevant to the present paper is recent work by Theresa Biberauer and her colleagues (Biberauer, Holmberg and Roberts 2007, 2008), whose Final-Over-Final Constraint (FOFC)<sup>16</sup> specifically requires final ‘force particles’ in head-initial languages to be treated as extra-metrical with respect to Kayne’s LCA, in virtue of not projecting categorial features. Interestingly, Biberauer, Holmberg and Roberts (2007) specifically cite Chinese as a key example of extra-metrical final particles in a head-initial language.

That said, such an analysis for Vietnamese *không* is unpromising. For one thing, it fails to explain why these elements should be homophonous with morphemes that *are* clearly syntactically integrated, and which have a clear context-free semantics of their own; by any reasonable understanding of the definition, *không* projects categorial features. Second, it predicts incorrectly that these elements should be restricted to the right edge of matrix clauses; it also implies that they should be separated from sentential material by some type of intonational break (though it does not require this). The examples in (24), however, show that *không/chưa* are both integrated into some kind of subordinate clause such that they can appear within that constituent in fronting contexts.<sup>17</sup> This mobility contrasts sharply with that of the elements in (22), which are all restricted to utterance-final positions. (Notice further that where *không* co-occurs with any such discourse particles, the latter elements always occur to the right of *không*).

- (24) a. [Lan có gặp Tho không]<sub>j</sub>, Tân biết t<sub>j</sub> (Bruening and Tran 2006a)  
 Lan ASR meet Tho NEG Tân know  
 ‘Tan knows whether Lan met Tho.’
- b. \*[Lan có gặp Tho]<sub>j</sub>, Tân biết t<sub>j</sub> không.  
 Lan ASR meet Tho Tân know NEG  
 ‘\*Tan knows whether Lan met Tho.’
- c. Tân biết [Lan có gặp Tho ?\*(hay)không]<sup>18</sup>  
 Tân know Lan ASR meet Tho or NEG  
 ‘Tan knows whether Lan met Tho.’

Finally, as noted at the outset, both *không* and *chưa* are syntactically bound to the pre-verbal morphemes *có* and *đã*. The syntax of these two latter elements is discussed in greater detail in Duffield (2007) and Duffield and Phan (2010), respectively. Here, the crucial point to observe is that it is these (optionally realized) pre-verbal elements, rather than *không* or *chưa*, that actually determine the force of the clause; the “clausal type”, in Cheng’s (1997) sense. So, for instance, whereas sentence (25a) is ambiguous between a preferred direct and indirect reading, those in (25b-c) are unambiguous: where *có* precedes the embedded verb, as in (25b), only the indirect reading is possible; conversely, where *có* precedes the matrix verb (25c), only the direct reading is available. This contrast is indicated by the final bracketing to the left and right of *không*, respectively. In other words, it is *có* rather than *không*—correspondingly, *đã* rather than *chưa*—that functions as the scope marker in each case.

- (25) a. *Tân biết Lan gặp Tho không?*  
 Tan know Lan meet Tho NEG  
 ‘Does Tan know whether Lan met Tho?’  
 marginally: ‘Tan knows whether Lan met Tho.’
- b. *Tân biết [Lan có gặp Tho hay không]?*  
 Tan knows Lan ASR meet Tho or NEG  
*Cannot mean:* ‘Does Tan know whether Lan met Tho?’  
 ‘Tan knows whether (or not) Lan met Tho.’
- c. *Tân có biết [Lan gặp Tho] không?*  
 Tan ASR knows Lan meet Tho NEG  
 ‘Does Tan know whether Lan met Tho?’  
*Cannot mean:* ‘Tan knows whether (or not) Lan met Tho.’

The main implications of these alternations are two-fold: first, that *không* cannot be treated as an extra-grammatical discourse marker, otherwise its dependence on (interrogative) *có* would be inexplicable; second, as argued previously in Duffield (2007), that [wh]-features in Vietnamese are not inherent properties of C-related heads, but are associated with a much lower functional category, which in Duffield (2007) is labelled AssertionP (= EP in the tree in 11 above). Other Vietnamese facts discussed in that paper provide additional support for this proposal, which recalls earlier analyses of Noonan (1989), and especially Rizzi (1996). The following quote from Rizzi (1996) is germane:

...It is natural to assume that such a position (for +wh features) can be the main inflection (or one of the main inflectional heads, if some version of the

Split Infl hypothesis is adopted, as in Pollock (1989)), the head that also contains the independent tense specification of the whole sentence. I would like to propose that among the other autonomously licensed specifications, *the main inflection can also be specified as [+wh] ...* [italics mine; N. D.] Rizzi (1996: 66).

The assumption that wh-features are located lower than C-related projections also immediately accounts for the distribution of Q-morphemes in other languages, for example, the question marker *kě* in Mandarin Chinese, discussed in Schaffar (n.d.) and exemplified in (26); also the pre-verbal positioning of the Q-morpheme *puas* in Mong Leng, an areally and typologically related language, described by Bruhn (2007) and illustrated in (27):

(26) a. *Nǐ kě xǐhuan zhè běn shū?*  
 you Q like this book  
 ‘Do you like this book?’

(27) a. *Lauj tau pumtug us.*  
 Lao PERF see CL duck  
 ‘Lao has seen the duck.’

b. *Lauj puas tau pum tug us.*  
 Lao Q PERF see CL duck  
 ‘Has Lao seen the duck?’

c. *Lauj nug kuv saib Maab puas nyam nwg.*

Lao ask 1SG whether Mang Q like 3SG

‘Lao asked me whether Mang liked him.’

d. *Lauj xaav trug saib Maab puas nyam nwg.*

Lao wonder whether Mang Q like 3SG

‘Lao wonders whether Mang likes him.’<sup>19</sup>

All of these distributional facts then tend towards the idea, originally articulated in Aoun and Li (1993), that wh-features in East Asian languages more generally are located in a position below C-related projections.

### 3.1.2. Final *không* as tag question

Though the facts illustrated in (24) and (25) above clearly argue against a treatment of final *không* as an extra-grammatical element, they do not preclude a different possibility, namely, that final *không* should be analysed as a polarity tag-question. The most direct analogy would thus be to the English negative tags illustrated in (28), which also exhibit a close dependency with pre-verbal morphology, as signalled by person and number agreement, as well as by the ‘inverse polarity’ effect (-+, +-, \*++, \*--):

- (28) a. *He should have done that, shouldn't he?*
- b. *She has finally realised what she's doing, hasn't she?*
- c. *\*She has realized what she's doing, isn't she?*

Culicover (1998) analyzes English tag questions as involving a covert *pro*-IP, and one might wonder whether a similar analysis could be applied to Vietnamese final *không*. What makes this especially plausible is the fact that Vietnamese does have a very productive tag-question strategy, employing some of the same morphological elements, shown in (29):

- (29) a. *Anh ấy không đến, (có) phải không?*  
 PRN DEM<sup>2</sup> NEG come ASR right NEG  
 'He isn't coming, is he?'
- b. *Bạn chưa xem phim này, (có) phải không?*  
 friend not.yet see film DEM<sup>1</sup> ASR right NEG  
 'You haven't seen the film yet, have you?'
- c. *Mày không có xu nào, (có) phải không?*  
 PRN NEG have money which ASR right NEG  
 'You haven't got any money, have you?'

However, simple Yes-No questions differ from these tag questions in several crucial respects that show that final *không* requires a separate treatment (whatever the correct analysis of tags may be). The most obvious difference between the two is that tag questions in both English and Vietnamese are strictly utterance-final phenomena: the interpretation of the examples in (30) shows that *phải không* can only modify

matrix predicates, while the contrast between the sentences in (30) versus those in (24) above demonstrate that *phải không*, unlike *không*, cannot appear within a fronted subordinate clause. Thus, the two constructions clearly diverge, both interpretively and distributionally.

(30) a. *Chị nói anh ấy không đến, phải không?*

PRN say PRN DEM<sup>2</sup> NEG come right NEG

‘She said he isn’t coming, didn’t she/\*is he?’

b. *Chị nói bạn chưa xem phim này, phải không?*

PRN say friend not.yetsee film DEM right NEG

‘She said you haven’t seen the film, didn’t she/\*have you?’

(31) a. *\*[Lan có gặp Thor phải không]<sub>j</sub>, Tân biết t<sub>j</sub>.*

Lan ASR meet Tho right NEG Tan know

‘\*Lan met Tho, didn’t he, Tan knows.’

b. *?[Lan có gặp Thor], Tân biết, (có) phải không?*

Lan ASR meet Tho Tan know ASR right NEG

‘\*That Lan met Tho, Tan knows, didn’t he?’

c. *\*Tân biết Lan có gặp Thor hay phải không.*

Tan know Lan ASR meet Tho or right NEG

‘Tan knows whether Lan met Tho.’ (cf. 24b)

The second notable difference between final *không* and *phải không* is that tags are not licensed in formal registers by preverbal *có*: indeed, as the examples in (32) demonstrate, *phải không* is incompatible with preverbal interrogative *có*.<sup>20</sup>

(32) a. *Tân (\*có) biết Lan gặp Tho, phải không?*

Tan ASR knows Lan meet Tho right NEG

‘Does Tan know whether Lan met Tho?’

b. *Anh (\*có) học tiếng Việt, phải không?*

PRN ASR study lang. Viet. right NEG

‘He studies Vietnamese, doesn’t he?’

Finally, *phải không* shows none of the co-occurrence restrictions on final *không* flagged in the introduction, and which—as will be shown directly—offer the key evidence for a transformational analysis of the latter element: on the contrary, *phải không* is fully compatible with preceding topic markers and tense markers, shown in (33) below, as well as with negative assertions, exemplified in (34):

(33) a. *Xã bên thì ruộng tốt, (có) phải không?<sup>21</sup>*

village side<sup>TM</sup> rice field good ASR right NEG

‘(As for) the neighboring village, its rice-fields are good (fertile), aren’t they?’

b. *Vợ anh sẽ làm việc ở Paris, (có) phải không?*

wife PRN FUT do work be-LOC Paris ASR right NEG

‘Your wife will work in Paris, won’t she?’

(34) a. *Anh ấy không đến, (có) phải không?*

PRN DEM NEG come ASR right NEG

‘Isn’t he coming?’

b. *Bạn chưa xem phim này (có) phải không?*

friend not.yet see film DEM<sup>1</sup> ASR right NEG

‘Haven’t you seen the film yet?’

c. *Mày không có xu nào, (có) phải không?*

PRN NEG have money which ASR right NEG

‘Haven’t you got any money?’

In short, the evidence against the idea that final *không* should be treated as a reduced tag is as varied and robust as that against the notion that final *không* is an extra-sentential discourse marker. Hence, it must be concluded that final *không* is an integrated functional head. Yet, as the first section showed, this is not a C-related head, since Vietnamese CPs are demonstrably head-initial, even in Yes-No questions. This apparent impasse calls for a more radical solution.

### 3.2. A derivational approach to yes-no questions

Interestingly, one possible way through—which might be termed a “radical ellipsis” analysis—is already offered by Nguyễn (1997), who proposes that final *không* questions are derived from more complex bi-clausal representations in which *không* (*chưa*) occupies the same underlying position in both clauses, as a pre-verbal marker of sentential negation. Nguyễn writes:

...Like *có... không?* the discontinuous expression *đã ... chưa* asks whether the action has taken place yet, and the question...

*Con đã uống thuốc hay (là) chưa uống thuốc?*

child ANT drink medicine or COP not.yet drink medicine

‘Have you taken your medicine (or not) yet?’

...undergoes successive deletions, until *đã* itself can be left out:

> *Con đã uống thuốc hay là chưa?*

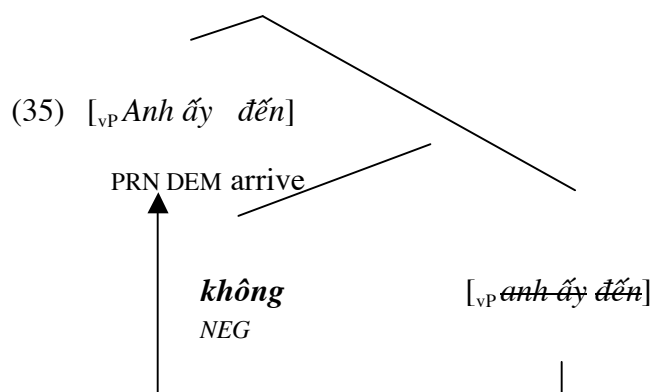
> *Con đã uống thuốc chưa?*

> *Con uống thuốc chưa? ... (1997: 152-153):’*

This is a very interesting proposal, and seems quite plausible both as a diachronic explanation of the origins of final *không/chưa*, and as a synchronic analysis of the *hay không* construction. However, given the contrasts obtaining between bare *không/chưa* questions and *phải không* tag question just discussed, it is less credible as a synchronic analysis. It is certainly not a Minimal(ist) solution.<sup>22</sup>

### 3.2.1. Final *không* is not final (Kaynian manoeuvre)

Consider, therefore, how we might retain the intuition behind Nguyễn's (1997) suggestion within a more economical derivational approach. Given the structure presented in (11) above, the proposed analysis of Yes-No questions is schematized in (35):



On this treatment, wh-features of *không*, projected as the head of NegP, force movement of the immediately subjacent constituent phrase to its specifier. At a stroke, this analysis explains not only the common form and semantics of pre-verbal sentential negation and final *không*, but also the impossibility of negative Yes-No questions mentioned earlier, and further illustrated in (36) (which should be compared directly with the tag question examples in (34) above.

(36) a. \*Anh ấy không đến không?

PRN DEM<sup>2</sup> NEG come NEG

'Isn't he coming?'

b. \*Bạn chưa xem phim này không?

friend NOT.YET see film DEM NEG

'Haven't you seen the film yet?'

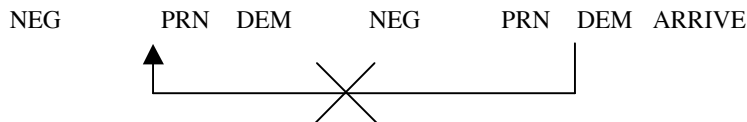
c. \**Mày không có xu nào không?*

PRN NEG have money which NEG

‘Haven’t you got any money?’

The reason that such sentences are excluded should be clear: a head is unable to trigger movement of a phrase containing itself around itself—see (37)—without violating some fundamental constraint (e.g., Structure Preservation, Chain Uniformity, Extension Condition, etc.):

(37) \**Không* [<sub>TP</sub> *anh ấy* [<sub>NegP</sub> *không* [<sub>VP</sub> ~~*anh ấy*~~ *đến*]]]



### 3.2.2. Immediate consequences

In addition to excluding negative Yes-No questions, this analysis also derives the fact that, in contrast to normal declaratives and tag questions, Yes-No questions may only involve functional categories that are initially merged lower than the projection headed by *không*: specifically, it predicts correctly that Yes-No questions cannot contain the future tense marker *sẽ* or the topic marker *thì*; I temporarily set aside the “past tense” marker *đã*. The contrasts discussed earlier—and recapitulated in (38) and (39) below—show that both of these predictions are borne out: in each case, tense and topic markers that are fully acceptable in tag questions—the (a) examples—are excluded from simple Yes-No questions, even though they are readily interpretable.<sup>23</sup>

(38) a. *Vợ anh sẽ làm việc ở Paris, (cô) phải không?*

wife PRN FUT do work be-LOC Paris ASR right NEG

‘Your wife will work in Paris, won’t she?’

b. \**Vợ anh sẽ (có) làm việc ở Paris không?*

wife PRN FUT ASR do work be-LOC Paris NEG

‘Will your wife work in Paris?’

c. *Vợ anh có làm việc ở Paris không?*

wife PRN ASR do work be-LOC Paris NEG

‘Does/Will your wife work in Paris?’ [Tense unspecified]

(39) a. *Xã bên (thì) ruộng tốt.*

village side TM rice-field good

‘(As for) the neighboring village, its rice-fields are good (fertile).’

b. \**Xã bên thì ruộng tốt không?*

village side TM rice-field good NEG

‘(As for) the neighboring village, are its rice-fields good (fertile)?’

c. *Xã bên kia, ruộng có tốt không?*

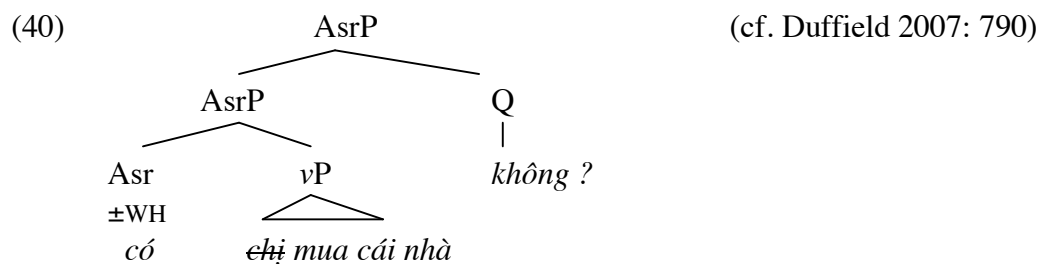
village side DEM rice field ASR good NEG

‘That neighboring village over there, are its rice-fields good (fertile)?’

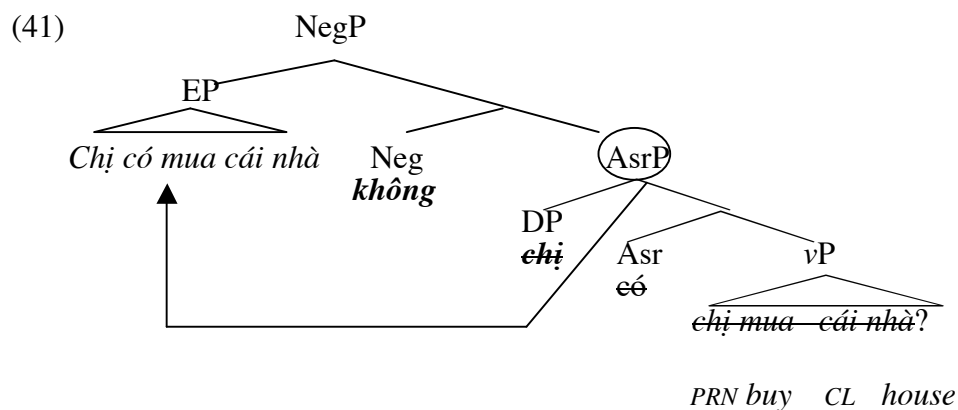
Notice now that the analysis has immediate consequences for the treatment of two other grammatical morphemes that *can* appear in Yes-No questions: viz., the interrogative/emphatic marker *có* and the anterior marker *đã*, shown in (1) above, and elsewhere, repeated here for convenience: namely, it requires that these elements must originate within the phrasal complement of *không*.

- (1) a. *Chị có mua cái nhà không?*  
 PRN ASR buy CL house NEG  
 ‘Did you [elder sister] buy (the) house?’
- b. *Con đã uống thuốc chưa?*  
 PRN ANT drink medicine not.yet  
 ‘Have you [child] taken your medicine yet?’

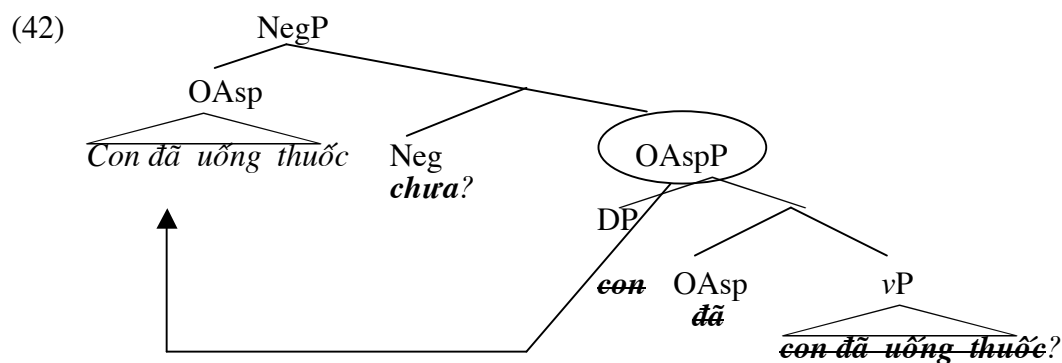
Taking *có* first, it was claimed in Duffield (2007) that in Yes-No questions the negation morpheme *không* was adjoined to the same functional projection (AsrP) that was headed by *có*: this head was assumed to combine formal features associated with polarity ( $\pm$ NEG), clausal type ( $\pm$ WH), and emphasis ( $\pm$ ASR) under one node, as schematized in (40):



Whatever advantages this analysis may have, it is clearly incompatible with the present account. Instead, in order to derive questions such as those in (1a), *có* must be projected independently of—and below—the functional projection associated with *không*: moreover, the thematic subject must undergo raising out of the verb-phrase into the specifier of this projection prior to generalized raising of this derived complement to *không*. A possible derivation is of *có* questions is diagrammed in (41).



Similar considerations apply to the derivation of Yes-No questions involving *đã*, such as that in (1b): if we assume that the negative morpheme *chưa* occupies the same syntactic position as (the default negative) *không*, it follows that *đã* too must be projected below the NegP projection: in other words, that anterior *đã*—in contrast to future *sẽ*—is not a tense marker underlyingly, but is instead associated with a lower aspectual projection (Outer Aspect: OAsp). This is shown in (42):



As it turns out, there is independent evidence that these two pre-verbal markers—anterior *đã* vs. future *sẽ*—have a distinct syntax and semantics: see Duffield (2009), Duffield and Phan (2010), for details. Nor is this assumption novel: Trinh (2005) also proposes on independent grounds that *đã* undergoes head-raising to

T (in contrast to future *sẽ*, which is taken to be base-generated in T). One piece of interpretive evidence that directly supports such an analysis concerns the interpretation of anterior *đã* in different sentential contexts: Trinh (2005) observes that whereas *đã* is generally ambiguous between a perfective and preterite interpretation (43a), only the latter reading is available in negative assertions (43b).

(43) a. *Nó đã đọc sách.* [examples from Trinh 2005]

PRN ANT read book

‘He has read books.’ (perfect reading) *or*

‘He did read books.’ (preterite reading)

b. *Nó đã không đọc sách.*

PRN PAST NEG read book

‘He did not read books.’ (Only preterite reading allowed)

This interpretive constraint would follow directly from the assumption that generally *đã* is projected below NegP. Assume that—in the absence of sentential negation—*đã* is inserted under OAsp and raises via head movement to T (accounting both for the ambiguity of *đã*, and for the incompatibility of aspectual *đã* with future *sẽ*.)<sup>24</sup> In Yes-No questions, *đã* continues to be inserted under OAsp, and interpreted aspectually, but in negative declaratives, when Neg is projected, head movement to T is blocked, forcing *đã* to be merged late directly under T, and resulting in a purely temporal interpretation (cf. Pollock 1989’s classic analysis of French-English differences in negative contexts).

Finally, this analysis of Yes-No questions correctly predicts the incompatibility of (aspectual) *đã* with (eventive) *có* in interrogative structures, even though these same elements are not mutually exclusive in declarative clauses:

compare (44a) and (44b) below. On the present analysis, this contrast follows from the impossibility of combining the derivation in (41) with that in (42):

(44) a. \**Anh ấy đã có trở về không?*

PRN DEM ANT ASR return NEG

‘Did he come back?’

b. *Anh ấy đã có trở về.*

PRN DEM ANT ASR return

‘He did come back.’

Summarizing, I have argued in this section that the various morphological, distributional and interpretive constraints on simple Yes-No questions that distinguish these sentences from tag questions on the one hand, and negative declarative sentences on the other, are best explained in terms of a Kaynian turn, by which *không/chưa* occupies a constant head-initial, sentence medial position underlyingly, its final position in interrogative structures derived through predicate raising of the immediately subjacent phrase to a higher specifier position.

Before considering some further implications of this analysis, it is necessary to address the formal motivation for the predicate raising postulated here. A number of analytic options are available, but essentially these boil down to two: feature-driven movement on the one hand, and “scope evasion” on the other. As for the first, one might imagine that this obligatory predicate-raising satisfies the checking of [+wh] features of *không*, along the lines of Rizzi’s *Wh*-criterion (Rizzi 1996), the difference being that such checking takes place in the original (medial) position where [+wh] features are initially inserted—see quote above—rather than in C. However, though

this would provide an adequate formal account of the movement, it is as stipulative as any appeal to movement having no clear interpretive effects: it also seems anomalous that Vietnamese should require overt movement for Yes-No questions, but not for constituent wh-questions.

An alternative explanation is suggested by the obligatory movement exhibited in Vietnamese by wh-words interpreted as universal quantifiers, discussed in Duffield (2007). As the examples in (45)-(47) show, object and adjunct phrases containing the underspecified ‘wh-words’ (*gì* ‘what’, *ai* ‘who’, *nào* ‘which’, etc.) are interpreted as universal quantifiers just in case they are displaced from their canonical postverbal position to a position to the left—outside of the scope of—the operator *cũng*; cf. Hole (this volume) for a focus-semantic-based interpretation of this kind of displacement. The alternations between the OSV orders in (45) and SOV orders in (46) demonstrate that the leftward landing site of such movement is irrelevant (suggesting that feature-checking is not the driving force); what is crucial is that the phrases are displaced to the left of *cũng*, as proven by the strict ungrammaticality of the *in situ* examples in (47).

(45) a. [Từ *nào*]<sub>i</sub>    *anh ấy cũng nhớ*        t<sub>i</sub>.

word which    PRN DEM also remember

‘He remembers every word.’

b. [*Ai*]<sub>i</sub>    *cô ấy cũng quen* t<sub>i</sub>.

ai        PRN DEM also know

‘She knows everybody.’

- c. [Ngày *nào*]<sub>i</sub> *tôi cũng tập thể thao* t<sub>i</sub>.  
 day which I also practise exercise  
 ‘I do exercises every day.’
- (46) a. *Anh ấy [từ nào]<sub>i</sub> cũng nhớ* t<sub>i</sub>.  
 PRN DEM word which also remember  
 ‘He remembers every word.’
- b. *Cô ấy [ai]<sub>i</sub> cũng quen* t<sub>i</sub>.  
 PRN DEM ai also know  
 ‘She knows everybody.’
- (47) a. \**Anh ấy cũng nhớ từ nào*.  
 PRN DEM<sup>2</sup> also miss thing which
- b. \**Cô ấy cũng quen ai*.  
 PRN DEM<sup>2</sup> also know who
- c. \**Tôi cũng tập thể thao ngày nào*.  
 PRN also practice sport day which

The proposal is that parallel considerations apply to predicate-raising around *không*. Suppose that like *cũng* (‘also’), *không* is ambiguous with respect to the (interpretable) features that can be associated with it: in principle, it can bear either negative features or wh-features, but not both simultaneously. The default interpretation of *không* is obviously as a negation morpheme, negating the constituent that appears overtly to its right (within its linear scope). Then, to evade this negative interpretation, and to signal the presence of wh-features on *không*, the predicate is

forced to raise outside of its scope, just as underspecified wh-constituents are forced to raise to avoid (default) wh-question interpretations. Thus, the best metaphor for raising here is not so much Greed (Chomsky 1989), or even Enlightened Self-Interest (Lasnik 1999), but a more functionalist notion: Survival (of interpretation).

### 3.3. *Extensions and implications*

It is worth pointing out that this type of roll-up analysis has already been applied to other apparently anomalous structures in Vietnamese, as well as in other South East Asian varieties. Taking Vietnamese first, the only other two elements that appear to the right of the phrase that they modify are the abilitative modal *được* illustrated in (48b), and the demonstrative/deictic elements (*này-ấy-kia*), exemplified in (49). Both of these sets of elements (and—in the case of abilitative *được*—its cognates in other language varieties) have recently been analyzed and discussed by several authors, including Duffield (1998, 1999), Simpson (1997, 2001) for *được* (*dak*), and Nguyen (this volume) for a DP-internal raising analysis of final demonstratives.<sup>25</sup>

(48) a. *Cô ấy được [kiếm việc].* Deontic modal

PRN DEM can seek job

‘She is allowed to seek a job.’

b. [*Cô ấy kiếm việc*] *được.* Abilitative modal

PRN DEM seek job can

‘She is able to seek a job.’ (examples from Duffield 1999)



of Mandarin Yes-No questions (introduced earlier) and for the CLAUSAL-TYPING HYPOTHESIS (CTH) that this analysis supports:<sup>26</sup>

(50) Clausal Typing Hypothesis

Every clause needs to be typed. In the case of typing a wh-question, either a wh-particle in C is used or else fronting of a wh-word to the Spec of C is used, thereby typing a clause through C by Spec-Head Agreement (Cheng 1997: 22).

The fundamental empirical contrast at the heart of the CTH is between English and (Mandarin) Chinese questions, illustrated in (12) above (repeated here for convenience) in which sentence-final particles in Mandarin questions are assumed to be exponents of a head-final CP:

(12) a. *Nǐ xǐhuan zhè běn shū ma?*<sup>27</sup>

you like this book Q

‘Do you like this book?’

b. *Qiáofēng mǎi- le shénme ne?*

Qiaofeng buy PERF what Q<sub>WH</sub>

‘What did Qiaofeng buy.’

The analysis of Yes-No questions presented in this paper offers several distinct challenges to this hypothesis. First—restricting attention to Vietnamese—the evidence that Vietnamese is consistently head-initial at all hierarchical levels up to CP shows that final Q-markers in Yes-No questions are not in C. If so, then Vietnamese stands as a counter-example to the CTH in having neither wh-particles in C, nor overt wh-movement. Second, the analysis of Vietnamese Yes-No questions presented here,

as well as the related evidence from other East Asian varieties (e.g. Mandarin *kě* and Mong Leng *puas* mentioned above) provides both theoretical and empirical evidence for the idea that *wh*-features are inherent properties of a much lower, clause-medial, projection, which again argues against the idea that clausal typing is uniquely determined by elements originating in C.

Taking a broader view, it is not inconceivable that the core Chinese data that provided the initial motivation for the CTH might be reanalyzed in a similar way to that proposed for Vietnamese. On the face of it, the distribution and discourse functions of elements on the right periphery in *wh*-questions are strikingly similar in both languages: if the existence of leftward complementizers licenses the inference that these final elements are not in C in Vietnamese, it raises the suspicion of an alternative analysis for Chinese as well: see Huang (2008) for one promising proposal.

#### 4. Conclusion

In this paper, I have provided a detailed exposition and analysis of the left and right periphery of Vietnamese clauses. Various arguments have been presented in support of the claim that, despite initial appearances, Vietnamese is consistently head-initial up to CP. In place of a rightward C position, the appearance of the negative morphemes *không/chưa* in sentence-final position in Yes-No questions has been explained in terms of a Kaynian turn, in which the immediately subjacent complement of *không* is raised to a higher specifier position, leaving *không/chưa* on the right periphery. This analysis has been shown to explain a number of significant restrictions on Yes-No questions in Vietnamese, including the absence of negative

yes-no questions, and the exclusion of tense and topic markers (all of which are freely available in superficially similar tag questions, and in *wh*-questions).

Finally, I have noted how this analysis fits with previous treatments of other anomalous elements in Vietnamese and areally-related languages, and considered the implications of this analysis for Mandarin Chinese—and for the Clausal Typing Hypothesis more generally.

## NOTES

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<sup>1</sup> The following abbreviations are used in the glosses and trees: *ant* = anterior; *asr* = assertion; *asp* = aspectual; *cls* = classifier; *comp* = complementizer; *conj* = conjunction; *be.loc* = locative *be*; *dem* = demonstrative (1,2,3 = proximal, non-proximal, distal); *excl* = exclamative; *fut* = future tense; *neg* = negation; *pol* = politeness marker; *poss* = possessive; *prn* = pronominal (including kinship terms); *Q* = Question Morpheme; *refl* = reflexive; *tm* = topic marker;

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<sup>2</sup> The original conference talk treated final elements occurring in both Yes-No and Wh-questions (*không/chưa* and *thế*, respectively). Here, I focus on the former set: for a more detailed discussion of wh-questions in Vietnamese, see Bruening and Tran (2006a); cf. for a critique of that analysis, Duffield (2009, in prep.).

<sup>3</sup> The main difference between the two morphemes *không* and *chưa* is that questions with final *không* simply ask about the truth of the proposition, whereas those with *chưa* ask whether the event or state of affairs denoted by the proposition has been realized.

<sup>4</sup> See Duffield and Phan (2010) for discussion of the justification of this label (i.e., anterior).

<sup>5</sup> Notice that the argument developed here only goes through if it is assumed that there exist intrinsically head-final languages—Japanese being a canonical example—in which heads are initially merged to the right of their phrasal complements; in other words, that the type of “roll up movement” proposed here is not a generalized solution to the issue of head-finality, but rather a way of accounting for sporadic exceptions in head-initial languages. Hence, in this paper I adopt a Kaynian approach to predicate raising, *without* adopting the more radical assumption that all languages are underlyingly head-initial.

<sup>6</sup> The main exceptions to this “cross-category harmony” (Hawkins 1983) are two functional elements that unexpectedly appear on the right periphery of their phrasal complement, namely, the abilitative/epistemic modal *được* (on the right edge of the verb-phrase), and demonstrative modifiers, which appear on the right edge of the noun-phrase. See below for further discussion: for detailed discussion of the peculiarities of *được*—arguably the most recalcitrant element in Vietnamese

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grammar—see Duffield (1999, 2001); Simpson (1999, 2001); see also Nguyen (2009) for an analysis of demonstrative placement.

<sup>7</sup> A reviewer observes that Mandarin Chinese and other varieties do have emerging complementizers (citing *shuō* in Mandarin as such as case).

<sup>8</sup> In this paper, *là/rằng* are presented as stylistic variants of one another. This is not strictly accurate: as discussed in Duffield (in prep.), there are contexts from which one or other of these elements is excluded, as well as sentences such as those in (i) below, in which the two co-occur:

- (i) *Phải nói rằng là thế hệ trẻ của chúng ta rất tài năng.*  
modal say COMP COMP generation young of PL PRN very talented  
'(I) have to say that our young generation is very talented.'

Space constraints preclude further elaboration of these contrasts, which are in any case tangential to the main argument.

<sup>9</sup> (b) [Người Việt Online: Friday, August 15, 2008],

(d) [[vietnamnet.vn/bandocviet/riengchung/2008/02/768004](http://vietnamnet.vn/bandocviet/riengchung/2008/02/768004), accessed 24/02/09]

(e) [EV: 201].

<sup>10</sup> It is unclear what the correct analysis should be for the medial argument in (18a), whether *các em sinh viên* ('the students') should be treated as matrix object or embedded subject.

<sup>11</sup> Example (19b) is cited in Ackema (2001); (26c) is from Stuurman (nd). It should be noted that these two authors make quite different assumptions about the proper analysis of this collocation.

<sup>12</sup> A reviewer points out that Dutch in fact permits even greater stacking of C-related elements in *wh*-questions, such as in (i)...

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(i) *Hij vroeg [ wie of dat ik gezien had ]*

he asked who if that I seen had

‘He asked who I had seen.’

...noting also the possibility of other combinations (*{wie of, wie dat, wie}*).

<sup>13</sup> A reviewer of an alternative draft of this paper did not consider this distributional evidence compelling, noting that ... ‘there’s no reason that one category could not differ from the others, or even that some Cs and not others could be right-headed...The point of the general pattern should be made, but I think it needs to be admitted to be a very weak argument...’ While I agree with the first assertion, inasmuch as there are many languages that diverge from total cross categorical harmony—German being a standardly cited example—the second assertion appears much less valid: though it may be true that in principle some exponents of a given lexical or functional category could be initial in their phrase and others final, the empirical facts suggest that this is extremely rare crosslinguistically: one does not find languages in which, for example, past tense auxiliaries appear to the left of the verb, and present tense auxiliaries to the right, or where indicative complementizers are initial and subjunctive complementizers final. Even if one did, one might well argue that this would be sufficient motivation for a transformational analysis—to restore within-category harmony: this would seem to be the impulse, for example, behind Huang (1994), to cite just one of numerous such analyses.

<sup>14</sup> [<http://hahien.wordpress.com/2009/05/08/th%E1%BA%BF-ma-toi-c%E1%BB%A9-t%C6%B0%E1%BB%9Fng-la-ong-di-cau/>] accessed 1/07/09.

<sup>15</sup> A reviewer of a previous version of this paper expressed shocked incredulity (“[The] statement left me flabbergasted”) at the claim that “many languages have

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lexical elements that are extra-metrical in this sense—present in utterances but not in sentences”. Yet, I know of no formal analysis that treats elements such as final ‘alright’, ‘ok’, ‘yeah’, etc—as in (i) below—as structurally integrated into English clauses, even though these elements also are functionally clause-typing, signaling a (rhetorical) question:

- (i) a. *I’m coming, alright?!*  
b. *She’s my sister, yeah?!*  
c. *I know what I’m doing, ok?!*

Nor are these the only elements that can be viewed as extra-grammatical, but nonetheless linguistic objects: from affective noises (*Brrr!*, *Whoosh*, *Zoom-Zoom*) to the ubiquitous, conversational *like*, to paralinguistic gestures, including nods, head-shakes, turn-taking *uh-huhs* etc., natural language utterances are populated with morphemes—unique conventionalised pairings of sound and meaning—that show no signs of grammatical integration. Some of these elements are of course treated in theories of pragmatics or in cognitive theories of communication—see, for example, Kita and Ide (2007)—but not as syntactic objects.

<sup>16</sup> Originally due to Holmberg (2000).

<sup>17</sup> The reason for the circumspect phraseology is that I am not convinced, *pace* Bruening and Tran (2006), that strings such as those in (24) involve either fronting or true complement clauses: if this were the case, then one would expect the unmoved, unfronted alternant (24c) to be grammatical without *hay*, contrary to the judgments of most speakers consulted.

<sup>18</sup> In this context, *hay* is obligatory for speakers consulted.

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<sup>19</sup> See Bruhn (2007), examples (4ab), (5bc). The examples in (25c) and (25d) clearly show that this Q-marker can occur in embedded clauses as well as matrix ones, and is separated from the complementizer *saib* by the intervening subject.

<sup>20</sup> Notice that *phải không* is compatible with pre-verbal *có* where *có* functions as an emphatic marker (without interrogative function), or as a lexical main verb meaning ‘have’: see Duffield (2007) for further discussion.

<sup>21</sup> Adapted from Cao (1991: 145).

<sup>22</sup> This is not so say that one could not imagine a Minimalist implementation of this solution, perhaps in terms of Sideward Movement (Nunes 2004): see Bruening and Tran (2006b) for an analysis of bare conditional structures in Vietnamese and Chinese along these lines. Whatever the merits of such an analysis for bare conditionals may be, it seems implausible that it should be applied in the present case: for one thing, it would not account for the absence of negative Yes-No questions, nor for the other constraints discussed immediately below.

<sup>23</sup> The contrast between (38b) and (38c) shows that topic information may still be left-adjoined—in apposition to the Yes-No question: it just cannot appear in the integrated topic position ( $\{\text{Spec}, \text{TopP}\}$  in (33) above).

<sup>24</sup> Note that this incompatibility cannot be excluded on semantic grounds: as discussed in Duffield and Phan (2010), in non-interrogative clauses *đã* is perfectly compatible with future perfect contexts.

<sup>25</sup> See Duffield (1995, 1996) for such an analysis of final demonstratives in Modern Irish, another head-initial language.

<sup>26</sup> This is by no means the first paper to address the CTH: aside from authors mentioned above, see Hoge (1998), Bruening (2007), Stevens (2008); also Ultan (1978), amongst many others. It should also be noted that the CTH includes

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substantive claims that go beyond the presence or absence of (overt) wh-movement: in particular, Cheng draws attention to a correlation between multiple wh-fronting and the possibility of forming wh-words from the morphological base of indefinites: see again Bruening (2007), Hoge (1998), for discussion.

<sup>27</sup> Note also the possibility of a preverbal Q-morpheme *kě*: see below, also Schaffar (nd).

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