Shake Can Well (…What?)

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Prologue[1]

What we call the beginning is often the end. And to make an end is to make a beginning. The end is where we start from. My linguistics education began just over 30 years in a building on this site. In early 1982 I took my first Introduction to Linguistics class with Steve Levinson and, I think, Frances Nolan. It was partly thanks to that course that I decided not to change over to Part II Law as I had intended, and my career as a corporate lawyer was over before it had begun. Two years on, in my final term Nigel Vincent, my undergraduate Director of Studies, was keen to convey his take on Chomsky's Pisa lectures, what became *Lectures on Government and Binding*. I'm not sure whether he had actually attended the lectures, but he persuaded us that his knowledge of syntax and Italian would give him and us a head start in tackling the book…

Two assumptions that I learned about as an undergraduate, and which I have spent more than 20 years teaching others, are first of all, that syntactic category information is lexically represented, and second from LGB that syntax is best understood as a projection of lexical properties. Recently, I have come to question whether either of these propositions is correct, and whether they might not obscure rather than elucidate our understanding of how grammar works.

In this talk, I'll be mainly concerned with a more specific question with regard to the second assumption, namely, where does grammatical meaning come from? First, though, we may begin with lexical categorization, by considering a string of words that face me nearly every morning these days thanks to *Schick Shaveguard*, and which through iteration have started to bother me…*Shake Can Well*. The quotes in (1) below, taken directly from a set of *Google* string searches,

[1] This is the (only slightly) revised text of a talk delivered at CamCos3, in May 2013. I am grateful to Theresa Biberauer and the other organisers of the workshop for the invitation, and to the other speakers and audience members for their questions and comments, which have led to a some amendments to this version. I welcome any further comments and questions: nigelduffield@gmail.com.

clearly illustrate that the V-N-ADV analysis (1a) is not the only way to parse the string, even if it may be the most popular in terms of token frequency: *shake* can be variously a verb or noun, *can* a noun, verb, or modal (epistemic, deontic, abilitative); *well* an adverb, noun, verb ('to well up'), or parenthetical, *etc*. The options are not limitless, but they are numerous enough that they should cause problems. Except that they don't: in context, none of these strings is globally, let alone locally, ambiguous.

(1) a. *Shake can well* before use.
b. A good *shake can well* boost our energy and cheer the day!
c. For many people, having cheese, a glass of milk, or a milk *shake can, well, shake* things up.
d. Seven pounds of berry-cleaning later, I was getting ready to *can*. *Well,* truth be told, I was trying to talk myself out of canning…all the wholesome summer evening fun you *can shake* a stick at.
e. *Well shake can* also be caused by a bent wheel which wheel balancing will not fix -and- a [*sic*] out-of-balance tire with good tread cannot be fixed with a wheel balance job as well.
f. So today I get to torture you with more […] than you *can, well, shake* a fist at. :)

I

Every undergraduate introduction to English grammar contains a section on determining parts of speech (POS). Lexical meaning, we tell our students, is an unreliable diagnostic of the category to which a given lexeme belongs even though it offers an important cue in first language acquisition, where it is in fact considerably more reliable, in statistical terms at least, than in the adult lexicon. Instead, (we teach that) categorization should be based on inflectional or morphological cues and where these fail because of the absence or ambiguity of affixes the assignment of words to lexical categories should be determined by external syntactic distribution. There is general consensus that the position of a word-form relative to others in a string is the most reliable way of determining a word's lexical category, a view that is shared even by probabilistic-learning theorists, such as Onnis & Christensen (2008), who have very little regard for autonomous syntax.

The determining power of syntax is typically pressed home by a rehearsal of the initial verses of Lewis Carroll's poem *Jabberwocky*. Here, we may keep to the first line, and for the sake of discussion its cousin, '*Jabberwocky Prime*', focusing on the words *slithy* and *toves* in (2a) and (2b):

(2) Jabberwocky vs. Jabberwocky Prime

a. T'was brillig, and the *slithy toves* did gyre and *gimble* in the wabe.

b. T'is brillig, and the krindish *slithe toves* with *gimble* in the wabe...

In *Jabberwocky* (2a), it is clear that *slithy* is a adjective and *toves* a noun; as for *Jabberwocky* prime (2b), *slithy* is despite its shape a noun, while *toves,* well, *toves* (…verbally). Having once used phrase-structure to divine the 'lexical' category, we then annotate the lexeme under examination with the relevant category-label in order to ensure that it ends up in the right place, so to speak, whenever it is projected into syntax.

For over 30 years, the circularity of this procedure failed to dawn on me or if it dawned, provoked only mild puzzlement. If we can only determine the syntactic category of an item after it is inserted into syntax, why bother to label it in the lexicon prior to lexical insertion? Why not simply let it be filtered out if it crops up in the wrong place? In the case of *lexical* lexical categories the answer goes back, *via Conditions on Transformations*, to semantic arbitrariness: the syntax alone cannot give us the difference in meaning between the nominal and verbal forms of *can* and *well* or, w*ell*, *(Orwell).* But what about functional categories? {*this, that, it, of, for, to, -s, -ed, -ing, as, so, (expletive) there, etc*}. Couldn't we let the syntax decide? It turns out, I think, that for these *grammatical* categories, lexical annotation is only required by the Projection Principle.

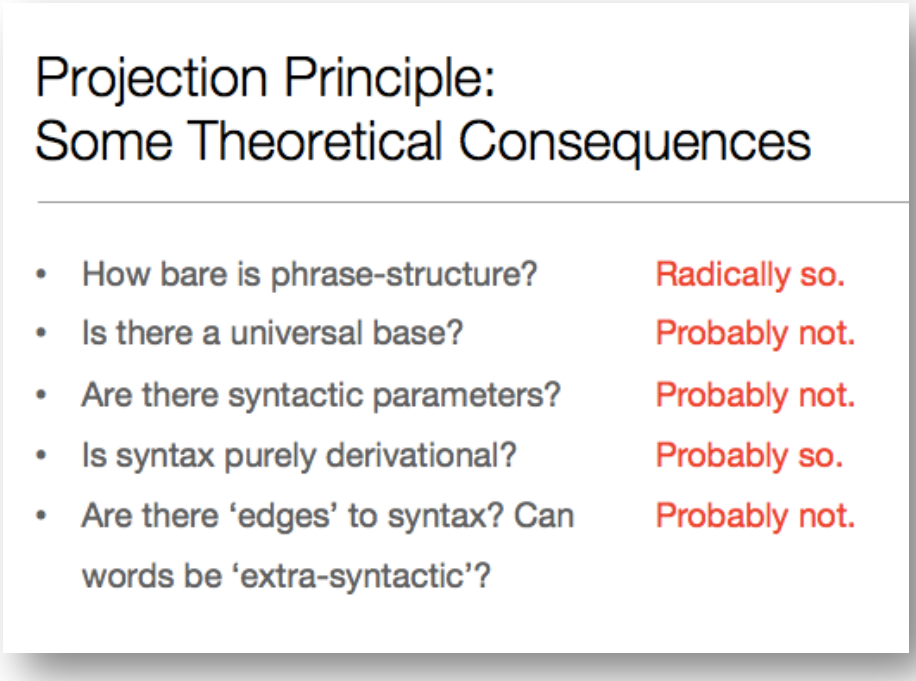
- 'The lexicon specifies the abstract morpho-phonological structure of each lexical item and its syntactic features, including its categorial features and its contextual features (Chomsky 1981:5)'
- 'A central assumption in generative grammar research on the relationship between syntax and the lexicon is that syntax is a projection of the lexicon. The structure of sentences is a reflection of the lexical properties of the individual lexical items they contain (Huang 1997:45)'

The end is where we start from. For more than thirty years, since the publication of *Lectures on Government and Binding* (Chomsky 1981), generative research has been informed by the Projection Principle, by which syntax is construed as a 'projection of lexical properties.' In subsequent Minimalist approaches, this restriction is tightened up further through the requirement that syntactic computations operate exclusively with the lexical items introduced in the initial numeration, without reference to any node labels or other extraneous symbols (e.g., theta-roles, indices, movement traces, levels of representation) that might contribute to sentence meaning. This does not, of course, exclude reference to

formal features – indeed, they are crucial to most Minimalist treatments – but it requires that any such features are ultimately drawn from the lexicon: they are themselves lexical entries, alongside contentful, semantically arbitrary, lexical items.

Whatever the theoretical advantages of this approach for delivering an extremely spare Minimalist syntax may be, it should be clear that this massively increases lexical complexity, leading to a multiplicity of different abstract features attaching to what are, intuitively speaking, the same lexical items. Grammatical theory is a zero-sum game, and if the syntax does little or no semantic work, the explanatory burden necessarily falls on lexical specification.

The importance of the Projection Principle cannot be overstated, since it largely predetermines the answers given to most of the significant 'big questions' that generativists have asked themselves over the last few decades. These include: (i) the existence or otherwise of labelled trees, (ii) the existence of a universal base (UBH), (iii) the possibility of syntactic parameters; (iv), the choice between derivational and representational models, (v) the relevance of affixal morphology to narrow syntax, as well as (vi) questions about the physical extent of syntactic analysis (the right-edge problem).



If – aside from the effects of scope and constituency – all grammatical meaning inheres in and projects from the lexicon, then syntax can be construed as the

radically spare (i), un-parameterized (iii), thoroughly derivational procedure (ii, iv) that informs current generative models (at least those on the ideological right wing of the party). Moreover, if syntax is just the projection of lexical properties, it becomes reasonable to suppose that *everything* that projects from the lexicon all uttered material, up to and including discourse particles necessarily enters into the syntactic computation. In a derivational model, there are no edges beyond which lexemes can be deemed to be extra-syntactic; in particular, there is no *right* edge (vi).

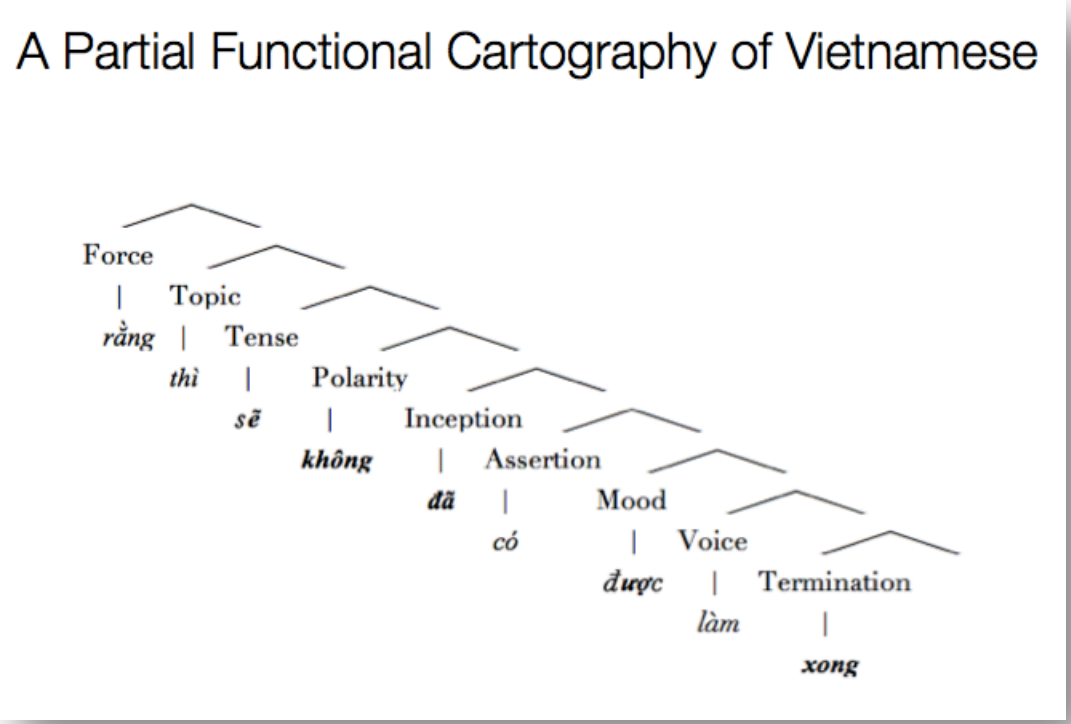
But what if it ain't so? What if we have fundamentally misconstrued the syntax-lexicon relationship? Here, I'd like to propose an antithetical functionalist alternative: the idea that the lexicon or at least, a theoretically interesting subpart of it is better viewed as a projection of syntactic meaning. Anti-Projection. Words as filters, exponents of syntactic configurations, acquiring their functional meaning in virtue of their syntactic position. This is minimalism, but it is *lexical*, rather than syntactic, minimalism.

I will argue here that this reversal offers more than a novel perspective on the syntax of familiar inflectional languages: it is the only empirically adequate way to treat multi-functional morphemes in isolating languages like Vietnamese.

II

The end is where we start from. If you end with Vietnamese, as I have done in my syntactic career, you return to a different place than if you end with Irish or Mohawk, for example. In contrast to inflectional or polysynthetic languages, Vietnamese does not differentiate subtle grammatical contrasts in the lexicon: instead, it disposes of a set of radically-underspecified 'multifunctional' items, whose semantics are determined in part—and in some instances exhaustively by their position in phrase-structure. In what remains of this talk, I'll assume some version of the functional cartography illustrated below, also the definition of MULTIFUNCTIONALITY given in (3):

(3) 'A multifunctional functional category (MFC) is one that is 'inherently underspecified with the unspecified properties of the host head...[where]... syntax can provide additional information not available in the lexical entry of the item. The lexical entry encode[s] the intersection of the uses of the item...[d]ifferent senses [of a multifunctional item] follow from the different head positions in which it occurs (Bobaljik, Travis & Lefevbre 1998).'

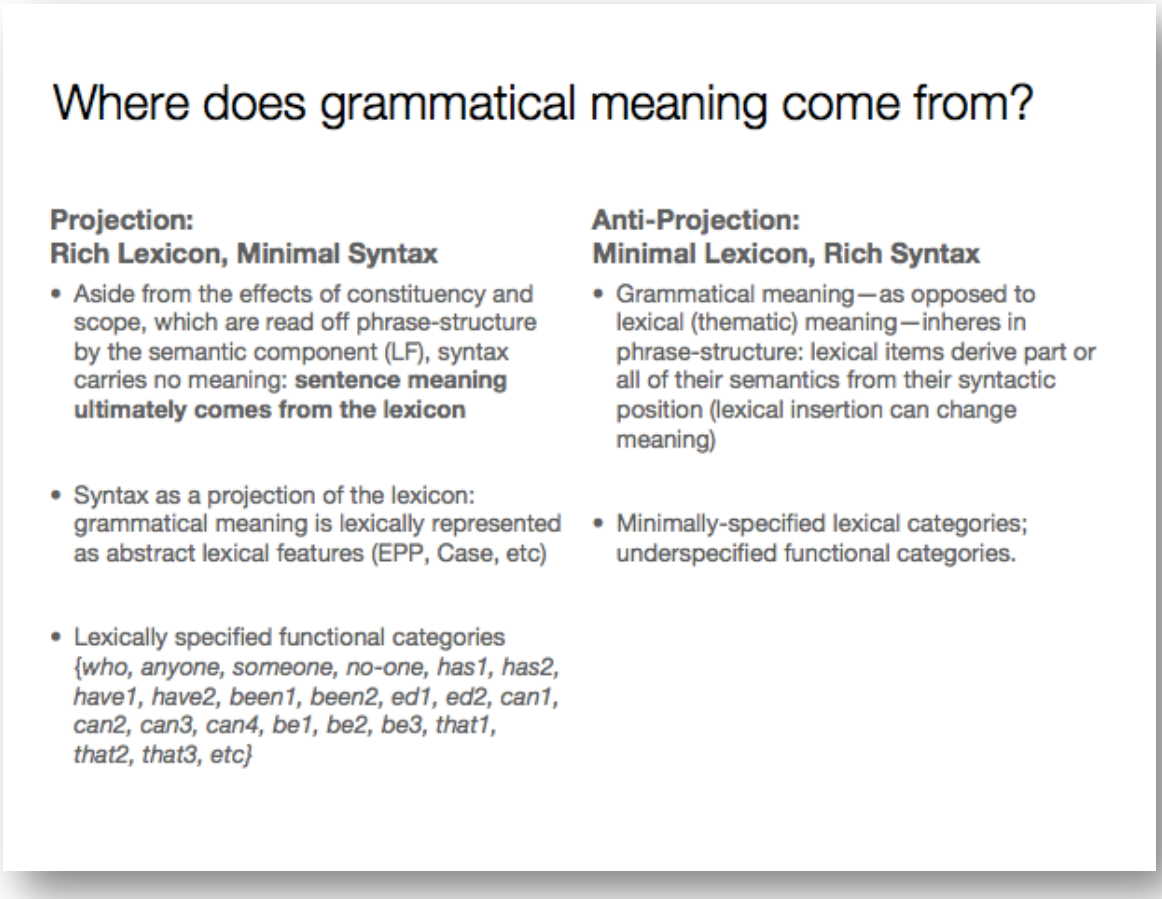


I'll consider here six examples of functional lexemes whose meaning cannot be dissociated from their syntactic positions *without significant loss of generalization*: characterizing these differences as lexical blatantly misses the point.

Before considering the Vietnamese data, however, it is worth spending a few minutes on some amateur semiotics, if only to illustrate how context changes your perspective of Minimalism, and of the Minimalist aesthetic. Consider, therefore, where meaning resides in these two New Zealand interiors: on the left, a 19th century Auckland living room; on the right the Waitangi Treaty House, built in 1940 to commemorate the signing of (two different versions) of a treaty between the British Crown and a number of Maori chiefs that was hardly a masterpiece of honest translation…

Strip out the furnishings in the left-hand picture, what remains is a meaningless empty room unless you have a penchant for drab grey walls: *something* must support the walls and the ceiling, for sure, but the supporting structure can only be surmised brick, wood, steel, mud it really doesn't matter. The room on the right is already bare furniture would be otiose but its (richer) meaning inheres in its structure: it is precisely the arrangement and composition of the floor, walls and roof that inform the space.

Any metaphor will fail soon enough, nevertheless, it is tempting to see parallels between Victorian interiors and European languages with their rich furnishings and structures hidden behind plasterwork functional positions obscured by movement and to see in isolating languages like Vietnamese the transparent and meaningful structure of the Waitangi meeting house, in which the fabric of the sentence is never upstaged by complex lexemes, or hidden behind the wallpaper…



III

To make an end is to make a beginning. So let's start with modals: *shake 'can' well*. A paradigm instance of multifunctionality is offered by the modal auxiliary *được* (also *phải*, *nên*), which is variously interpreted as a deontic, epistemic or abilitative modal even as a non-modal (*realis*), aspectual, particle depending on its structural position. This is illustrated by the alternations in (4): in (4a) pre-verbal *được* is interpreted deontically, (4b) post-verbal *được* is interpreted as a non-modal aspectual, indicating accomplishment or completion, while phrase-final *được* in (4c) only has an abilitative reading.

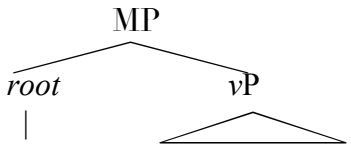
(4) a. Ông Quang *được* mua cái nhà. [pre-verbal = root]
PRN Q. CAN buy CL house
'Quang was allowed to buy a house.'

b. Ông Quang mua *được* cái nhà. [immediately post-verbal = aspectual]
PRN Q. buy CAN CL house
'Quang has bought (was able to buy) a house.'

c. Ông Quang mua cái nhà *được*. [post-vp = abilitative/epistemic]
PRN Q. buy CL house CAN
'Quang is able to buy a house/
Quang may possibly buy a house.'

Similar alternations involving post-verbal CAN are readily observable in other languages of the South East Asian Linguistic area: analogous constructions in Thai are discussed, for example, by Simpson (1999); see also Enfield (2001) for a functionalist typological survey, focussing on Lao, and Cheng & Sybesma (2004) on medial *dak* in Cantonese. However, so far as I know, in these other varieties these distributional effects do not extend across the entire set of modal auxiliaries. In Vietnamese, however, as can be seen in the contrast between the corresponding examples in (6) and (7) below, all of the other modal auxiliaries also display these alternations, their meaning precisely co-varying with their syntactic position.

(5)



(6) a. Họ *nên* làm việc lớn.
PRN should do job big
'They should do great things.'

b. Cô ấy *được* kiếm việc.
PRN DEM can seek job
'She is/was allowed to look for a job.'

c. Cô ấy *phải* kiếm việc.
PRN DEM must seek job
'She must look for a job.'

Naturally, on a standard lexicalist approach one could assign different lexical features to the homophones of each modal element, which would ensure that they end up in just these positions, but it should be clear that this is missing a crucial generalization about the complete class of modal auxiliaries, namely, that specific modal meanings are completely predictable from the syntax; last

time I checked, the lexicon was supposed to be free of this kind of wholly predictable information.

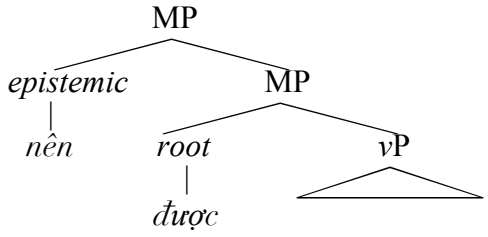
(7) a. Họ làm *nên* việc lớn.
PRN do ASP job big
'They did (made) great things.'

b. Cô ấy kiếm *được* việc.
PRN DEM seek ASP job
'She found a job.'

c. Cô ấy kiếm *phải* việc.
PRN DEM seek must job
'She found a job.'

As the examples in (7) show, Vietnamese is largely indifferent to which modal is inserted into the post-verbal position they are interpreted identically as *realis*/aspectual markers. Before considering the nature of this position in more detail, let's stick to the pre-verbal modals for a moment. The examples in (9) demonstrate that it is in fact possible to have more than one pre-verbal auxiliary though, as the unacceptability of (9b) demonstrates, their order is fixed.

(8)



(9) a. Cô ấy *nên* *được* kiếm việc.
PRN DEM should obtain find job
'She should be allowed to find a job.'

b. *Cô ấy *được* *nên* kiếm việc.
PRN DEM obtain should look-for job
(as (a))

c. She *may/should/ought to* look for a job (now that she has a work permit) = ambiguous root/epistemic.

d. She *may* have to look for a job (now that she has a work permit) = only epistemic.

e. She *should/ought to* be able to find a job (now that she has a work permit) = only epistemic.

Notice that in (9a) where *nên* precedes *được*, the modal loses its deontic reading and is interpreted purely epistemically. The same seems to be true of English, as well: the examples in (9c-e) show that the leftmost modal in a sequence must be interpreted epistemically, even where it is otherwise ambiguous when it occurs in isolation. This gives the lie to the idea that there is only one pre-verbal (polysemous) modal element, and suggests a common cartography for the two languages.

Let us now examine the immediately post-verbal position more closely. Why should this position be associated with accomplishment/completion? An answer is obvious to anyone familiar with syntactic treatments of what is sometimes termed 'lexical aspect' (which is only lexical in languages with complex verb forms). A glance at the data in (10-13) shows that accomplishment readings are not tied to the predicate itself – in this case the verb đọc (read), or to the pre-verbal anterior morpheme đã (of which more anon), but instead are due to the presence or absence of the post-verbal aspectual auxiliary *xong* – usually translated as finish when it occurs as a main verb – as well as the position of the object DP relative to *xong*.

(10) a. Nó đã đọc *xong* sách rồi.
PRN ANT read PTC book already
'He has finished reading (the) books.'

b. Nó đã đọc sách *xong* rồi.
PRN ANT read book PTC already
'He has finished reading the books.'

The alternation in (10) also reveals that direct objects in Vietnamese may precede or follow the terminative morpheme *xong*. Notice that where it precedes *xong*, the direct object is obligatorily interpreted as definite (even in the absence of a classifier or numeral quantifier). This parallels the restriction found in Dutch and other Germanic particle constructions (11), something that

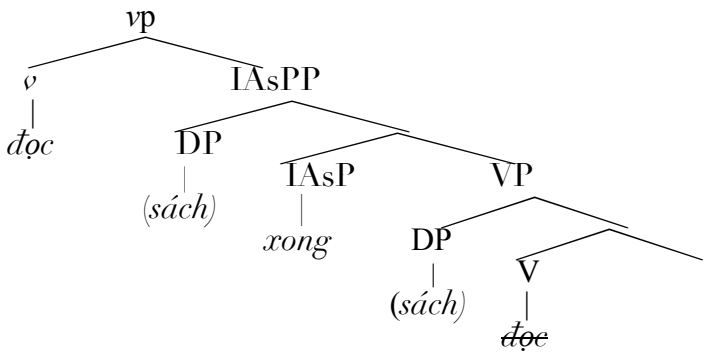
is commonly analyzed in terms of obligatory object-shift. It seems reasonable to assume the same for Vietnamese, as diagrammed in (12), except that this object raising to the {Spec, AspP} stays within the VP: hence, Travis (2010) label "Inner Aspect" is appropriate.

(11) a. *Het meisje eet koekjes op.
the girl eats biscuits PTC
'The girl eats up bread.'

b. *Het meisje eet brood op.
the girl eats bread PTC
'?The girl eats bread up.'

c. Het meisje eet het brood op.
the girl eats the bread PTC
'The girl eats the bread up.'

(12)



(13) a. Nó đã viết bài, nhưng vẫn chưa xong.
PRN ANT write paper (but still NEG finish)
'He wrote (= has started writing) the paper (but he hasn't finished it yet).'

b. Nó đã viết *xong* bài (*nhưng vẫn chưa xong).
PRN ANT write PTC paper (but still NEG finish)
'He wrote (up) the paper (*but he hasn't finished it).'

c. Nó đã viết hai bài, (*nhưng vẫn chưa xong).
PRN ANT write two paper (but still NEG finish)
'He wrote two papers (*but he hasn't finished them yet).'

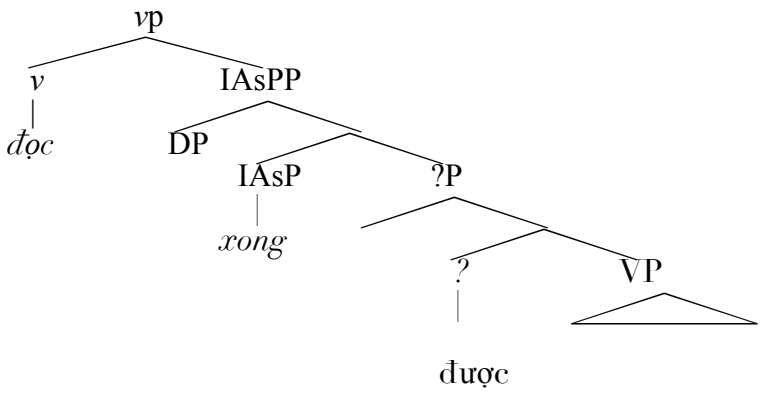
The contrasts in (13) reinforce the point that the termination of an event is rarely entailed by the verb itself, but requires either a terminative morpheme

such as *xong*, or a quantified object. Crucially, the pre-verbal morpheme đã which is sometimes glossed as a past tense marker does not serve to delimit the event, even though it is clearly aspectual, as we shall see directly. In the interest of time, I'll skip discussion of the data in (14)-(15): I'll be happy to return to this later.

(14) a. Cuối cùng nó cũng lau (*được) xong (được) cái bàn.
final PRN also wipe CAN finish CAN CL table
'He finally finished wiping down the table.'

b. Họ đã tìm (*được) ra (được) cách chữa bệnh AIDS
PRN ANT find CAN out CAN way treat disease AIDS
'They have found the cure for AIDS.'

(15)



Before leaving the modal auxilaries, however, consider the use of *nên* in (16):

(16) a. [Nhưng tại tôi mới ăn món gà xong] *nên* [chắc mấy tuần sau mới nấu lại].
yet because I just eat cl. chicken PTC should sure some week later just cook again.
'Yet since I have just had chicken means that (lit. 'should') I'll probably cook it again in few weeks.'

b. Bởi vì có biết bao người ở bên em như thế, nên có lẽ anh nghĩ, anh có thể đẩy em đi.
because exist know how many people on your side like that, should perhaps prn think, he can push prn go
'Because there are so many people in your position, (so) maybe he thinks he can (just) push you away.'

Whatever else *nên* means in this context Trang Phan translates it as 'means that' in (16a) *nên* is not functioning as a root modal here. Rather, it serves as its position dictates as a pure conjunction, something like English *so* (also an MFC, if ever there was one). In this position and only here it is interchangeable with other MF clause-linkers including the 'topic marker' *thì*, the 'relative marker' *mà*, and the copula *là*, all of which are neutralized in this position.

Let us turn now to *đã* as featured especially in the examples in (17b)-(24) below. The situation of *đã* is slightly more complex than that of the modals, which have mutually exclusive interpretations depending on where they are inserted, since *đã* usually expresses two kinds of grammatical meaning simltaneously, something that is arguably a signature of head-movement. Let me explain. Consider first the examples in (17) and (18), which show that *đã* has the syntactic distribution of a tense marker, rather than that of a typical aspectual morpheme: it competes for the same position as the future tense marker sẽ, appearing to the left of manner adverbials such as *cẩn thận* (carefully) (17), and also to the left of the sentential negation marker *không* another MFC to which we'll return directly; the examples in (17) show that whereas the imperfective marker *đang* may appear on either side of negation, *đã* is always the highest functional category:

(17) a. Tôi (sẽ) cẩn thận (*sẽ) viết lá thư này.
I FUT carefully FUT write letter DEM
'I will write this letter carefully.'

b. Anh ấy (đã) cẩn thận (*đã) đọc quyển sách này.
PRN.DEM ANT carefully ANT read CL book DEM
'He read the book carefully.'

(18) a. Tôi (đang) không (đang) ăn cơm.
PRN ASP NEG ASP eat rice
'I am not having a meal.'

b. Tôi (đã) không (*đã) làm việc đó.
PRN ASP NEG ASP do job DEM[2]
'I didn't do that.'

c. Tôi (sẽ) không (*sẽ) làm việc đó.
PRN FUT NEG FUT do job DEM[2]
'I will not do that.'

At the same time as Trang Phan clearly demonstrates in her recent dissertation, and as we have jointly discussed elsewhere Duffield & Phan (2010) *đã* is fundamentally an aspectual morpheme, denoting inception or anteriority (that is, a perfect, as opposed to perfective, marker). The present- and future-perfect examples in (19)-(20) show that *đã* need not express any past tense meaning, while those in (21) show that *đã* in contrast to the English preterite does not entail event completion.

(19) a. Ông ấy *đã* già rồi.
PRN DEM ANT old already
'He is old (already).'

b. Harry Potter *đã* chết!
Harry Potter ANT die
'Harry Potter is dead!'

(20) a. Bằng giờ này năm sau, chị *đã* là giáo viên rồi.
by time this year next, she ANT COP teacher already
'By next year, she'll *already b*e working as a teacher instead.'

b. Đến cuối năm nay, tôi *đã* ra.trường.
arrive end year DEM[1] PRN ANT go.out.school
'I *shall have* graduated by the end of the year.'

c. (Nếu) ông nói với tôi sớm hơn thì tôi đã săn sóc đến việc ông.
(if) PRN say with me earlier TOP I ANT take.care work PRN

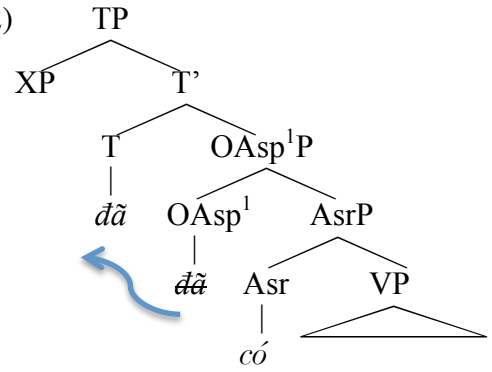
'If you had told me about it earlier, I *would have* taken care of that business of yours.'

(21) a.i Tàu đã chạy rồi mà giờ nó lại dừng.
train ANT run already but now PRN again stop
'The train has already run [= set off], but it has now stopped again.'

a.ii Tàu *đã* chạy rồi và giờ nó vẫn chưa dừng.
train ANT run already and now PRN still not.yet stop
'The train has already run [= set off], and hasn't stopped yet.'

In spite of the apparent cancellability of any past-tense reading, in contextually-neutral affirmative clauses *đã* may be interpreted either as a perfect or a preterite: as Trinh (2005) discusses, *đã* often simultaneously expresses features of tense and aspect. This can be captured syntactically if we assume with Trinh that aspectual *đã* is initially inserted lower in phrase-structure and undergoes raising to T, shown as in (22). This derivation also neatly accounts for the complementary distribution between future sẽ and *đã*, exemplified in (23).

(22)



(23) a. Đến cuối năm nay, tôi (*sẽ) đã ra.trường.
arrive end year DEM[1] PRN FUT ANT go.out.school
'I *shall have* graduated by the end of the year.'

But here's the rub. In *negative* contexts, before *không*, *đã* only has a Tense-related preterite reading, as the contrast between (24a) and (24b) clearly illustrates.

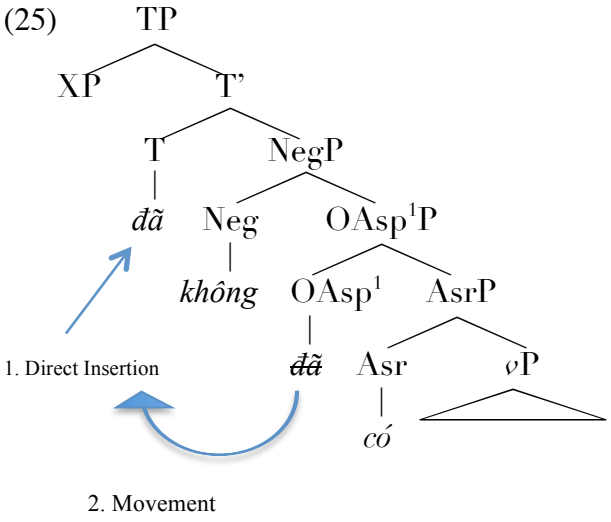
(24) a. Nó *đã* đọc sách.
PRN ASP read book
'He read books/has read books.'

b. Nó *đã* không đọc sách.
PRN ASP NEG read book
'He did not read books./*He has not read books.' [Trinh 2005: 10]

c. Nó *chưa* đọc sách.
PRN not.yet read book
'He has not read books.'

The clear suggestion here is that clausal negation blocks aspectual head-movement to T in Vietnamese, something that should be familiar to anyone who has ever read Pollock (1989). Working with this intuition, Trinh analyzes preterite *đã* as inserted directly into T, thus void of any aspectual features. My own analysis set out in Duffield (2013a) is only slightly different at the level of syntax: lexically however, our analyses are much further apart. For Trinh, there must be two *lexical entries for đã*, ($đã_1$ and $đã_2$) one specified with only Tense features, the other bearing two sets of features.

(25)



But this homophony approach seems completely redundant: if *đã* only gains its preterite specific meaning from its position, and if is there is clear evidence that the higher position expresses temporal rather than aspectual values (as

evidenced by the future marker sẽ, which cannot occur anywhere else), why bother to state this in the lexical entry? If, instead, we assume a functional cartography in which Tense is syntactically encoded, we obtain the intended readings without any lexical redundancy: supposing that *đã* is only minimally specified with phonological features, then lexicalization of Asp will result in an aspectual interpretation, movement to Tense will result in an element that expresses both tense and aspect. Trinh's lexicalist approach simply misses the generalization that interpretation of *đã* is given by its structural position, not the other way around.

Matters become even worse for the standard lexicalist when examples such as those in (26) below are taken into account. These sentences show that *đã* also appears on the right edge of imperatives, as an exhortative discourse marker. There is still a trace of anteriority here as suggested by the English translation 'first': in this position, however, *đã* has no perfect interpretation, much less a preterite one. The appearance of *đã* on the right edge of the sentence is also puzzling for a strictly derivational approach, in so far as it is hard to see how or where it should be syntactically adjoined.

(26) a. [Nghỉ] đã, rồi hãy làm!
rest ANT then IMP work
'Rest first, and then work!'

b. [Anh nghe tôi giải thích] đã.
PRN listen PRN explain ANT
'Let me explain to you first.'

The solution to this puzzle, I'd like to suggest, is that it isn't [syntactically adjoined], that is: in (26) *đã* is extra-syntactic, a discourse marker beyond the edge of the sentence. I'll develop this idea further in the final part of the paper: for now, it's worth noting that the exhortative discourse expressions 'Come on!' and 'Come off it!' display very similar properties in English, as evidenced by the anomaly of embedding such terms in reported speech, as in (27b).

(27) a. 'Come on! Come on, you can do it!'

b. She told me (#to come on and) that I could do it.'

IV

The interaction of anterior *đã* with negative *không* illustrates another significant property of multifunctional items, namely, that they may also derive their interpretation through their scopal relationship to other MFCs. In Vietnamese, it turns out to be important not only where you *are*, but where you are *not:* elements can derive particular interpretations by evading the scope of other functional operators. This is brought out most clearly when we consider the indefinite expressions '*ai*' and '*gì*' (also *nào*, *đâu:* see below). *Ai* is typically translated as 'who', but 'one' or 'body' would better serve (as in 'someone', 'no-one', 'anyone', 'everyone'). These grammatical senses are of course related in many languages, but whereas they are differentiated morphologically in languages like Japanese by means of the (multifunctional) affixes {*-mo, ka, -demo*}, as in (28), and distinguished lexically in English, such distinctions are achieved purely syntactically in Vietnamese.

(28) a. John-ga dare-*ka*-o dare-mo-ni syoukaisita.
John-NOM someone-ACC everyone- DAT introduced
'John introduced someone to everyone.'

b. Dare-*mo*-ga i-na-katta.
no-one-NOM be-NEG-PAST
'No-one was there'

c. Dare-mo-o mi-na-katta.
anyone-NOM see-NEG-PAST
'I didn't see anyone.'

d. Dare-*ga* John-o dare-*mo*-ni syoukaisita-ka?
who-NOM John-ACC everyone.DAT introduced-Q
'Who introduced John to everyone?'

(It's not clear to me whether Elvis Costello's brilliant line in his 1977 hit *Alison* (29) challenges or proves the validity of the Lexical Integrity Hypothesis; at all events, we generally think of words like *everyone, someone*, as morphologically opaque, which is why the line is so effective.

(29) 'I don't know if you're loving some *body*$_i$
I only know it$_i$ isn't *mine…*'
Elvis Costello, *Alison)*

By contrast with these lexical strategies, when we consider the Vietnamese paradigm in (30), it is impossible to differentiate the various interpretations of *ai* or *gì, except* by considering their syntactic position. In (30a), for example *ai* is

obligatorily interpreted as a *wh*-element *Anh quen ai* is an object question, whereas in (30b), *ai* functions as a negative polarity item: within the scope of negative khong, {*ai, gì, nào*, etc} are all interpreted as negative indefinites. And in order for *không* to have scope over indefinite subjects, *ai* must remain *in situ* {spec, vP}, in (30c). Example (30d) shows that specific indefinites are derived by combining *ai* with the demonstrative morpheme *do*: through this (syntactic?) composition they are immune to other scope effects.

But what about the universal reading? In principle, *ai* could be combined with the universal quantifier *moi*, illustrated in (31), but in the case of underspecified MFCs, this is not what happens.

(30) a. Anh quen *ai*?
PRN know ai
'Who(m) do you know?'

b. Tôi không quen *ai.*
I NEG know ai
'I don't know anyone.

c. Khong (có) [*ai* quen tôi].
NEG exist ai know I
'No-one knows me.'

d. Có *ai* đó đang sử dụng tài khoản của bạn.
EXIST ai DEM ASP use account POSS friend
'Someone is using your account.'

But what about the universal reading? In principle, *ai* could be combined with the universal quantifier *moi*, illustrated in (31), but in the case of underspecified MFCs, this is not what happens.

(31) a. Ai cũng nhớ mọi từ.
ai also remember every word.
'Everyone remembers every word.'

b. Vài thấy giáo biết mọi sinh viên.
several teachers know every student
'Some teachers know every student.'

(Just before considering this problem, it is worth noting that as might have been predicted that Google Translate is hopeless at dealing with

multifunctionality. The title of a recent sports inteview 'What did Ryan Giggs say about Louis van Gaal?' is translated to Vietnamese correctly as 'Ryan Giggs nói gì ve Louis van Gaal?', but is falsely back-translated as "Ryan Giggs says nothing about Louis van Gaal?". Such failures are virtually guaranteed for a parser that draws exclusively on lexical information, in a language where these distinctions are not syntactic encoded.[2]

So, back to universal readings. These are derived by moving the DP out of the VP entirely, and adjoining it higher, as in (32):

(32) a. *Ai* cô ấy [cũng quen.]
ai PRN DEM also know
'She knows everyone.' (OS [cũng [V]])

b. Cô ấy *ai* [cũng quen.]
PRN DEM ai also know
'She knows everyone.' (SO [cũng [V]])

There are two main points to observe here. First, as evidenced by the equal acceptability of (32a) and (32b), it really doesn't matter whether the underspecified object is moved before or after the subject (*cô ấy*): in (32a), it precedes the subject, in (32b), it follows. All that is important for a universal interpretation that the underspecified indefinite should be scrambled outside the thematic domain (vP). In Duffield (2007), I claimed that the object is moved to the left of AsrP, to which the pre-verbal adverbial *cũng* adjoins, but it may be PolP (Duffield 2013c). The related point to observe is that this kind of object-shift is completely unacceptable with regular (lexically-specified) objects: Vietnamese is otherwise a rigidly configurational language without the slightest possibility of argument scrambling.

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[2] I was tempted to contribute a better translation, but life is short; in any case, the interview was quickly superceded by events.)

Here once again, the diehard lexicalist could maintain that there were 4 different *ai*, 4 different *gì*, four different *nào*, etc all lexically represented, and assign different abstract features to each one just so that they were attracted to the correct higher positions after being inserted into the derivation in their thematic position. But aside from the fact that it is begining to look desperate and that it misses the obvious point that the grammatical meaning comes from the position not from the lexeme, it is far from clear how any Agree approach should capture the optionality of the alternations in (32): the object isn't being moved *to* a position, it simply moved away, out of range, *einfach weg von hier!*

This brings us to 'Exhibit 4': the sentential negation morpheme *không*. Several of the examples cited up to this point including especially those in (23) have demonstrated that negative *không* occupies a fixed clause-medial position, to the right of Tense, to the left of the emphatic assertion marker *có* (another MFC); (33a) illustrates this pattern again. The clause-medial position of *không* is further established by the examples in (33c) and (33c), where *không* is reinforced by the emphatic negative morpheme *đâu*, which may either precede *không* or follow the verb-phrase.

(33) a. Anh *không* (có) mua sách!
PRN NEG ASR buy book
'He did NOT buy the book!'

b. Ông *đâu không* đến!
PRN WHERE NEG come
'He did *not* show up!'

c. Ông *không* đến *đâu*!
PRN NEG arrive where
'He is *not* coming/did *not* come!' (≠ 'Where didn't he go?')

A point to observe about these examples is that in argument position, outside of the scope of negation, *đâu* is obligatorily interpreted as locative expression (= English *where*); in (33b) and (33c) however, the same element is obligatorily interpreted as an emphatic negative. If you will forgive the pun, this shouldn't be *at all* surprising, given that English *at all* is also a covert locative, etymologically at least. The complementary distribution of locative *vs.* emphatic negative *đâu* has been observed by other authors, who then fail to draw the obvious conclusion. Do & Le (1994), for instance, note:

> '*đâu*: mot placé à la fin d'une phrase négative pour renforcer la négation. Il ne faut pas le confondre avec son homonyme *đâu* qui exprime l'interrogation de lieu. *En principe,* đâu *interrogatif ne s'emploie jamais dans une structure négative* [emphasis mine: NGD] (1994: 82)'

As interesting as this may be, however, the more pressing reason for presenting the examples in (33) is to contrast them with those in (34), in which the otherwise medial elements *không* and *chưa* appear in clause-final position, and are now interpreted not as negation elements but instead as *Yes-No* question particles.

(34) a. Anh (có) mua sách *không*?
PRN ASR buy book NEG
'Did he buy the book?'

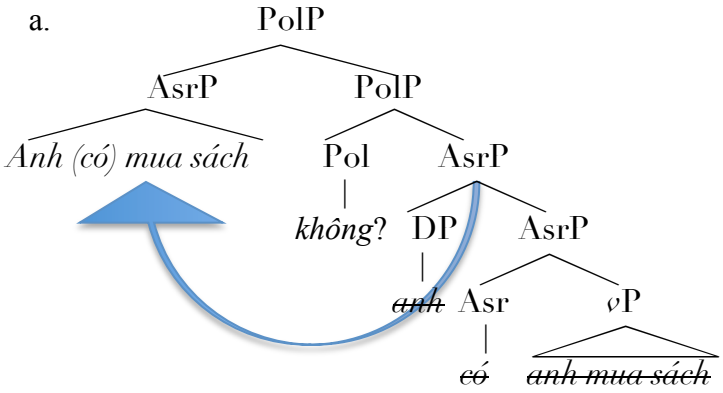
b. Con đã (**có*) uống thuốc *chưa*?
PRN ANT ASR drink medicine not.yet
'Have you (child) taken your medicine yet?'

c. Hôm.qua anh ấy đã không *có* đến nhà chị.
yesterday PRN DEM[2] ANT NEG ASR go house PRN
'He didn't go to your house yesterday.'

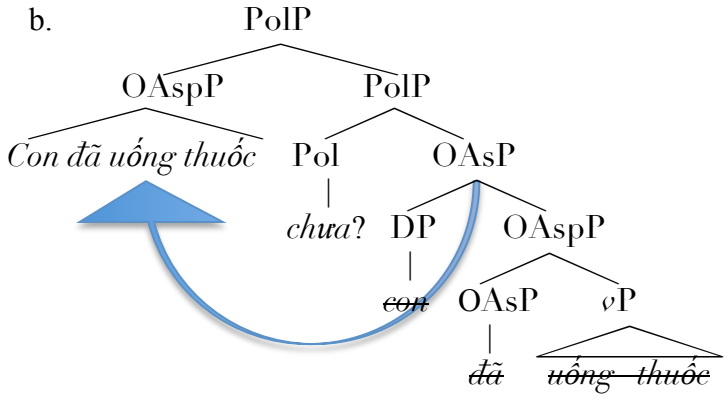
As the examples in (34) reveal, *Yes-No* questions in Vietnamese are formed by means of two 'brace constructions': in the default case (34a) with sentence-medial *có* plus final không; and just in the case of perfect questions with medial da and final *chưa*. Notice that these two options are in strict complementary distribution: even though đã and assertion *có*, and không and *chưa*, may co-occur in medial position in declaratives, as shown in (34c), in *Yes-No* questions, only one or other strategy is permitted.

With these, we appear to have reached the right edge of Vietnamese at last. Except that we haven't. *The end is where we start from*. In Duffield (2013a), I set out some arguments in support of the Kaynian turns, diagrammed in (34a) and (34b). These diagrams articulate the claim that medial and final *không* occupy one and the same (medial) position to form a *Yes-No* question, it is not negation that moves to the right, but its immediate complement that moves to the left.

(35) a.



b.



Aside from considerations of 'cross-category harmony' if it really were on the right periphery, interrogative *không* would be the only rightward functional head in what is a massively head-initial language the analyses in (34) together account for three otherwise unexpected constraints on *Yes-No* questions. These are: first, that there are no negative *yes-no* questions in Vietnamese, as indicated by the data in (36); second, that *Yes-No* questions may not contain the future morpheme se, which we have already seen, occupies T (37a); (iii) *Yes-No* questions may not involve the topic marker *thì*, or any topicalized constituent (36b). All of these constraints follow directly from the analyses in (35), since this predicate-raising can only target material lower than negation, and *không* cannot move around itself. See Duffield (2013a), for a more detailed discussion.

Supposing this analysis to be correct, the question is why, why should the extended predicate phrase move out of the scope of negation? The same functionalist answer suggests itself in this case as with indefinites interpreted as universal quantifiers, just discussed above: by moving out from under the scope of negation, the predicate phrase (with its immediately superordinate functional

categories, can 'avoid a lot of trouble') that is to say, it can avoid being negated. Conversely, by having nothing to take scope over, *không* is free to assume another grammatical function, that of a *Yes-No* question morpheme.

Readers who buy the derivation but who feel queasy at the very hint of this sort of functionalist explanation can always invoke some [+wh] features in AsrP that will force the predicate phrase to move above *không*, though as with universal quantifiers it is far from clear where the predicate phrase should move *to*, only that (once again) it must move *from,* its point of origin. As for those who hate the derivation also, the core examples still make a clear case for multifunctionality: in medial position, *không* is unequivocally negative, whereas in final position, it isn't. *Innit*?

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

b. *Con chưa uống thuốc chưa?
PRN not.yet drink medicine not.yet
'Haven't you [child] taken your medicine yet?'

(37) 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. *Xã bên *thì* ruộng tốt không?
village side TM rice field good NEG
'(As for) the neighboring village, are its rice-fields good (fertile)?'

Incidentally, there is very clear evidence that final khong is not a tag question: Vietnamese has tag questions also, as shown in (38), but they display none of the constraints detailed in (36) and (37); moreover, unlike final *không* which can be embedded, Vietnamese tags are root phenomena, just like English ones. (See, again, Duffield (2013a), for an expanded discussion).

(38) a. Mày không có xu nào, (có) phải không?
PRN NEG have money which ASR right NEG
'You haven't got any money, have you?'

b. Bạn chưa xem phim này, (có) phải không?
friend not.yet see film DEM ASR right NEG
'You haven't seen the film yet, have you?'

V

We have nearly reached the end. *The end is where we start from*…At the outset, I mentioned that as I interpret it a strictly derivational approach driven by the Projection Principle cannot in principle admit of extragrammatical elements beyond the right edge, for the obvious reason that there is no 'right edge' to adjoin to in a purely bottom-up, monotonic, computational model. It follows that if it can be shown that there are discourse elements one step beyond the edge, so to speak, this will call into question both the derivational approach, and by implication, any strict interpretation of the Projection Principle: if at least some lexical elements are syntactically 'extrametrical', there must be some phrase-structure to be independent of…

The element in question is the Vietnamese *realis* particle *thế*. *Thế* is of particular interest because of a recent paper Bruening & Tran (2006) in which it is argued that Vietnamese admits of two different strategies for resolving *wh*-dependencies: the first, a covert extraction mechanism now handled, presumably, by Agree which is subject to standard island effects; the second, unselective binding, which is signalled by the presence of final *thế*, in which island effects are allegedly suspended. The sentences in (39) are supposed to illustrate acceptable *wh*-interpretations for the indefinite element *ai* ('who'), contained within three kinds of 'syntactic islands' complex NPs (39a), sentential subjects (39b) and adjunct clauses (39c): the annotations on the parentheses around *thế* showing that omission of this element leads to the expected island violations.

(39) a. Tân vừa chụp hình con hổ đã dọa ai ??(?*thế*)?
Tan ADV catch picture CL tiger ASP scare who PRT
'Tan took a photo of the tiger that scared who?'

b. Ai (vừa) bỏ đi làm mọi người bối rối ??(?*thế*)?
Who ASP leave make everyone embarrass PRT
'That who left made everyone embarrassed?'

c. Tân thua cuộc *vì* ai làm hư xe của anh ta ??(?*thế*) ?
Tan lose event because who do damage car POSS PRN PRT
'Tan lost the race because who damaged his car?'

In Duffield (in submission), I offer an extended critique of Bruening & Tran's paper. The central claim of this response article is that B&T's theoretically-driven treatment simply misses the point, and that *thế* is a discourse particle that only attaches to root clauses, and thus signals that what would otherwise be analyzed as a subordinate sentence should be reparsed as a main clause. Once this happens, island effects assuredly disappear, but not for any theoretically interesting reason.

In order to understand what is going on here, one need look no further than Subject-Auxiliary Inversion in English. Except for some L2 learners of English, and speakers of certain varieties of Hiberno-English (as Jim McCloskey discussed about 15 years ago) embedded SAI is ungrammatical. This is well-known, as is the less-acknowledged fact that long-distance *wh*-extraction is generally quite marginal except for the statistical outliers *say*, *tell*, and *think*. This is shown by the so-called factive islands in (41). It turns out, though, that by applying subject-auxiliary inversion, the 'island effects' apparent in (41) are immediately suspended, in (42). Is this because AUX-in-COMP acts as a scope marker, allowing unselective binding? Though theoretically possible, this is a very unlikely explanation. A much more plausible reaosn is that in (42) the presence of SAI causes the embedded clause to be reparsed as a main clause, with the original main clause simply being parsed out (treated as a parenthetical). In Duffield (2014), I arge that the same is true of Bruening & Tran's illusory islands: alternative analyses of the strings in (39), which also better capture native-speakers' intuitions about the meanings of these strings, are given in (43) below.

(40) a. 'Would you (happen to) know [*where* I can find the toy department ~~*where*~~?]'

b. 'Do you know [*what* her maiden name was ~~*what*~~?]'

(41) a. '**Where* would you (happen to) know [~~where~~ (that) I can find the toy department ~~where~~?]'

b. '**What* do you know [~~*what*~~ (that) [her maiden name was ~~*what*~~]?'

(42) a. '?*Where,* would you (happen to) know, [can I ~~can~~ find the toy department ~~where~~?]'

a'. '*Where* can I ~~can~~ find the toy department ~~where~~, would you (happen to) know?'

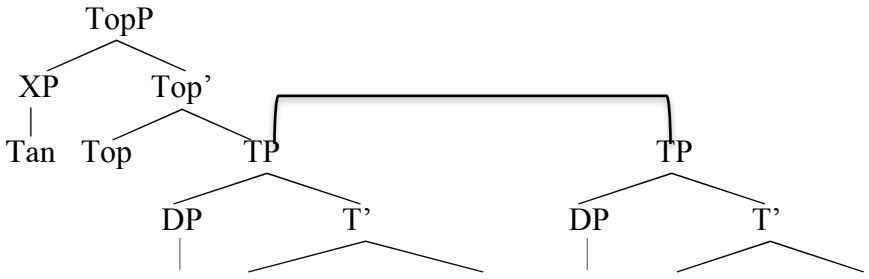
b. '?[*What,* do you know, [was her maiden name ~~was~~ ~~*what*~~]]?'

b.' '?[*What* was her maiden name ~~was~~ ~~*what*~~], do you know?'

This re-analysis is also more in spirit with Mary-Beth Clark's (1992) observation about Vietnamese in one of the most significant papers on the language in recent decades. She writes:

> 'Ideas in Mainland South East Asia tend to be expressed in seemingly co-ordinate or sequential units in a linear fashion, rather than in clause-within-clause constructions. These units are frequently unmarked by conjunctions. Therefore, when conjunctions are used, they signal the likelihood that the speaker wishes to make some point about the relationship between the clauses involved with that construction. *Some constructions do not have meanings that are restricted enough to be quite clear about the relationship being expressed* (Clark 1992: 91, emphasis mine).

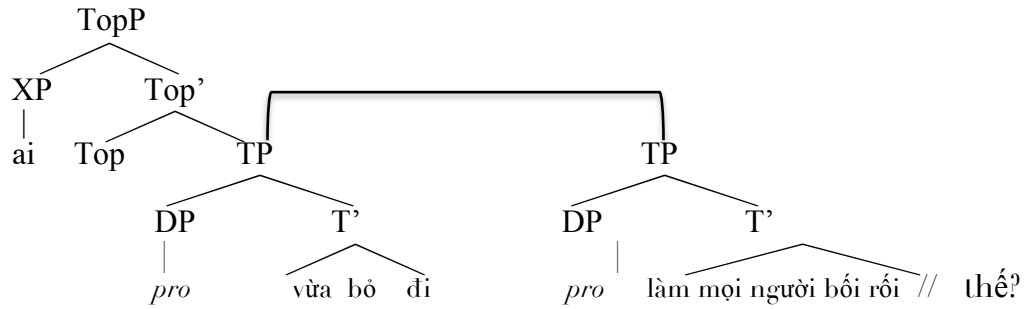
(43) a.



pro vừa chụp hình con hổ *pro* đã dọa ai // *thế*?

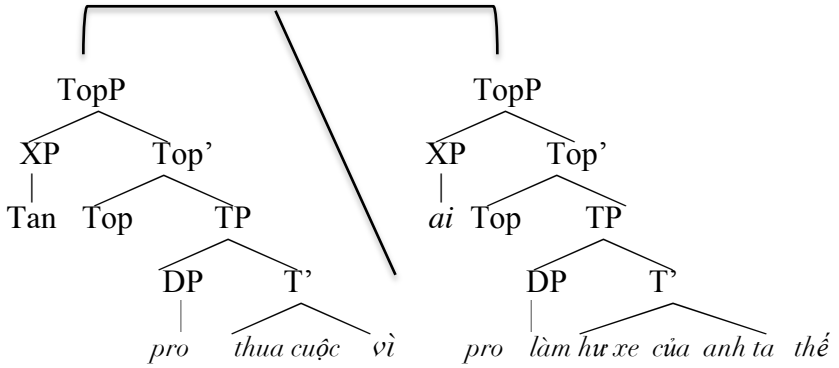
'Tan, (he) (just) took a picture of a tiger, and (then) who did (he) [= Tan] scare?'

b.



"Who just left, and embarrassed everyone (by doing so)?"

c.



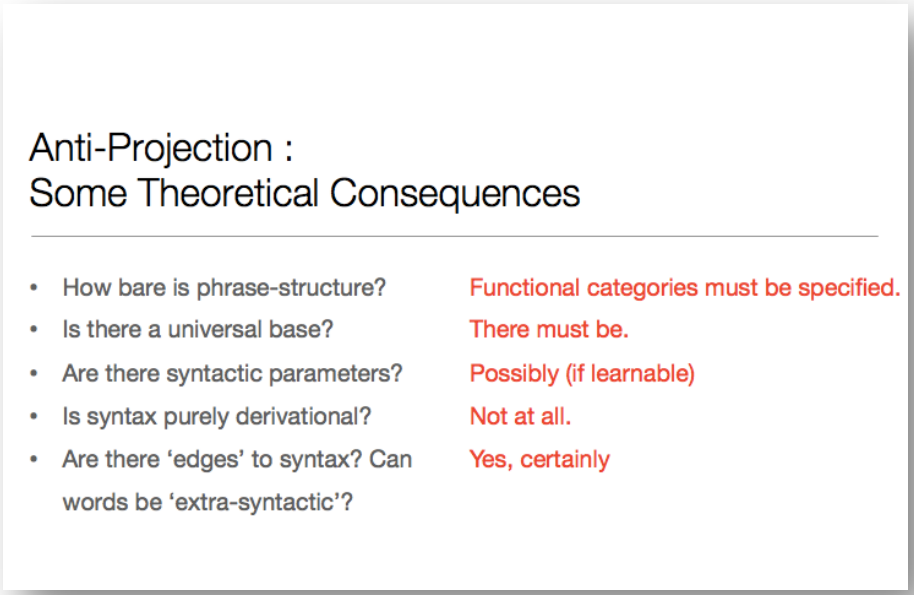
'Tan lost the race because … *who* damaged his car?'

Our theoretical prejudices may lead us to ignore, or downplay the significance, of Clark's insight – having spent 50 years investing in developing tools to deal with hierarchical structure, there is an understandable reluctance to view linear relationships for what they are – but that is our loss. The behaviour of *thế* and other discourse particles force us to recognise that there are many elements in utterances that are lexical – *thế* is a Vietnamese word, not an English one, *innit* is an English word (I think!) – but which are not syntactic: it follows that syntax cannot be a projection of lexical properties, at least not exhaustively.

VI

Over the previous sections, I have examined data that support a multifunctionality approach to functional categories, and which in turn

inveighs against the more traditional lexicalist assumptions that have been forced upon generative analyses by the Projection Principle (or vice versa perhaps). In place of syntactic Minimalism, in this paper I hope to have made a prima facie case for lexical Minimalism a lexicon stripped of functional homonyms and abstract formal features and for Anti-Projection. As could be expected, this inverse view of the relationship between syntax and the lexicon leads to a set of answers to the big questions of syntactic theory that are diametrically opposed to the standard responses of current Minimalism, viz:



Epilogue

I'll end where I started, with a consideration of lexical categories. The final extracts, from Monty Python and Elvis Costello, at once demonstrate the instability of syntactic categories (viz. 'revolutionary leaflets',) in conversational English: it also provides an answer to one of the questions on my Part 1 Tripos on a June day 30-odd years ago: what was *Sartre* on about?

At YouTube https://www.youtube.com/watch?v=crIJvcWkVcs

From 7:00-8:39

Mrs Sartre: Oh, I say, you're not a Marxist are you, Mrs Conclusion?
Mrs Conclusion: No, I'm a Revisionist!!
Mrs Sartre: Oh, good…I mean, look at this place…I'm at my wits end...revolutionary leaflets everywhere…one of these days, I'll *revolutionary-leaflets* him…If it wasn't for the goat, you couldn't get any other propaganda!

Monty Python, *Mrs Premise & Mrs Conclusion visit the Sartes*.

You snatch a tune,
You *match* a cigarette…
Elvis Costello, *Watching the Detectives* (1977)

What we call the beginning is often the end.
And to make an end is to make a beginning.
The end is where we start from.
T.S. Eliot.

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