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Abstract

By comparison with other areally- and typologically-related languages, the Vietnamese language disposes of a large and diverse set of (non-affixal) grammatical particles that display striking distributional and interpretive parallels with functional heads in familiar Western European languages. Most of these grammatical morphemes are ‘multifunctional’ in the sense that their meaning is largely—in some cases, exclusively—determined by their clausal distribution; alternatively, by their configurational relationship to other grammatical morphemes. In this paper, I document the distribution of these particles, working down the clausal spine: I then present a set of analyses of those cases where particles interact with one another, with each group considered in its own terms. Following this presentation, I briefly consider some broader implications of these analyses: it is suggested that a more satisfactory explanation of Vietnamese grammar can be found if it is assumed that grammatical meaning inheres in syntax, rather than in lexical representations.

Keywords

Vietnamese phrase-structure; Multifunctionality; Syntactic Cartography; Outer vs. Inner Aspect

Introduction

This paper¹ offers a cartographic study of Vietnamese clause structure. Although the empirical coverage of the paper is broadly commensurate with that of preceding versions, its goals are more modest: for the most part, it aims at purely observational, at best descriptive, adequacy, in the sense of Chomsky (1965). Through a systematic exposition of the distribution and interpretation of grammatical morphemes—both above and within the thematic verb phrase (or predicate phrase)—the primary goal of the article is to establish a body of syntactic facts that any more adequate theoretical analysis should be able to account for.

Vietnamese is a particularly rewarding language to study since it exhibits ambiguous, and contrary, morphological and syntactic properties. A naïve consideration of Vietnamese sentences from the perspective of Western Indo-European languages suggests that Vietnamese is an archetypal ‘isolating’ language variety (see, for example, Whaley (1997)) in as much as it is devoid of bound inflectional morphology, and—aside from a (proclitic) reflexive element—also lacks any bound derivational morphology (causative, passive, (de-)transitivizing morphemes) that might plausibly be considered to be syntactically active; *cf.* Baker (1985, 1988). Temporal relations are generally expressed through tense adverbials and conjunctions, or inferred contextually; as we shall see, transitivity alternations are handled highly analytically. However, even though it completely lacks affixation,

¹ The research reported here, which summarizes work over many years, would not have been possible without the invaluable assistance of Vietnamese colleagues, especially Trang Phan, and Trinh Tue, whose comments and criticisms have significantly improved my understanding of this language.

Vietnamese has a rich inventory of grammatical morphemes—albeit these are optionally expressed: yet just in case these elements are syntactically projected, their distribution and interpretation is strikingly familiar from a Western perspective, and correspondingly alien from the point of speakers of other South East Asian languages, especially Sinitic varieties (see also Alves (1999)).

Viewed in a more universalist light, Vietnamese reveals itself as a near-perfect blend of the layered functional syntax that was originally motivated by inflectional categories of Western languages—hence the anachronistic terms *‘INFL’*, *IP*, *AgrS*, *AgrO*, etc.—with the syntactic transparency of isolating East Asian languages, whose underlying structure is unobscured by morphologically-driven head-movement. That at least is what is suggested by the data presented here.

Fig. 1 below articulates the layers of grammatical meaning involved in a typical English sentence with past time reference, such as in example (1a); examples (1b) and (1c) show the Dutch and Vietnamese equivalents.

- (1) a. She read the book.
 b. Ze heeft het boek gelezen.
 c. Cô ấy (đã) đọc quyển sách.
 PRN.DEM² (ASP) read CLS. book
 ‘She (has) read the book.’



‘She read the book.’

Tense: PAST

Grammatical **Aspect:** Completive/Perfective

Assertion: marking a claim (indicative mood?)

Lexical Aspect (**Aktionsart**): Accomplishment

Transitive/Causative: [1, 2: (Agent, Theme)]

Root meaning: READ

What's within? Hidden elements of grammatical meaning, in English

10

Intuitively, the English sentence comprises the following elements of grammatical meaning. Starting from the bottom up, we first encounter the core or root meaning of the lexical predicate READ: stripped of its argument structure, READ (inherently) denotes an ACTIVITY of interpretation or information transfer (*cf.* ‘she read the book/my mind/_ to her children/the weather’). The addition of an object—the transitivity of READ—introduces the possibility of a BOUNDED EVENT, though it does not by itself force a change of Aktionsart from activity to accomplishment (*cf.* ‘She read the book for hours at a time.’). The addition of a subject argument implicates a CAUSATIVE meaning of some kind: whereas previously this may have been treated as a primitive thematic relation (‘Agent’, ‘Actor’) borne by the subject DP, most recent syntactic analyses treat this added interpretation relationally, analyzing the subject as an argument of a covert causal predicate, e.g., *v*: see Baker (1997), also Copley & Martin (2015). The examples in (1) also involve ASSERTION VALIDITY in the

sense of Klein (1998): as discussed in more detail below, indicative sentences make a claim that a given proposition holds or held—or does/did not hold, in the case of negative sentences. Finally, tense morphemes serve to situate these meanings relative to the time of utterance in a particular universe of discourse. In the cases at hand, the English preterite form read in (1a), unambiguously marks PAST TENSE, whereas the Dutch present perfect form is ambiguous between a present perfect and a preterite interpretation. As we shall see directly, the Vietnamese sentence in (1c) exhibits the same ambiguity as is found in the Dutch example, thanks to the pre-verbal morpheme *đã*.

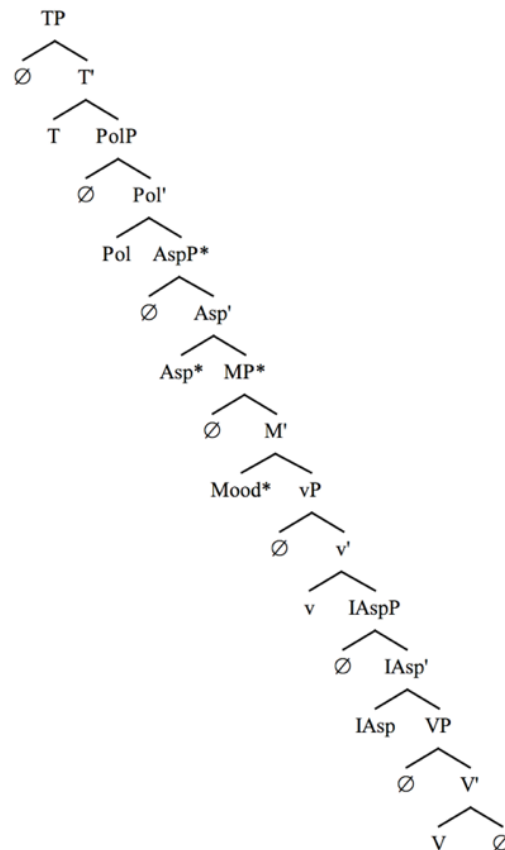
Though few would deny that these hidden meanings are a crucial part of clausal interpretation, the idea that they correspond directly to syntactic functional projections *is* disputed; even more controversial is the idea that this functional architecture is universal. In what follows, however, I will suggest that these ideas are true, and that Vietnamese makes the best possible case for them. Specifically, I will argue for the cartography of Vietnamese given in (2), in which layered functional projections appear in two regions: (i) outside the thematic domain, in what is conventionally termed the IP-domain; (ii) within the thematic vP, which—following Travis (2010)—I will term the ‘Inner Aspect’ domain. (The Kleene Star symbol in (2) denotes iterable projections of the same semantic kind: for example, different sorts of aspectual projection).

The rest of the paper is organized as follows. Section 2 is concerned with functional projections in (2) above the thematic verb-phrase: the first subsection provides motivation for the projection of Tense, (Outer) Aspect and Negation as autonomous syntactic positions, the second part deals with Assertion (Mood) and Modality. In Section 3, the focus is on

justifying the functional heads within the verb-phrase: Inner Aspect and (causative) *v*.

Section 4, which concludes the paper, considers more general implications of the observed multifunctionality of grammatical morphemes in Vietnamese.

(2)



2. IP Syntax in Vietnamese

2.1 Tense, Aspect and Negation

Following Pollock (1989), Chomsky (1989), and innumerable subsequent ‘Split-INFL’ treatments of clausal phrase-structure, I will assume that aspectual auxiliaries in both French and English are initially merged with the predicate phrase prior to merger of Negation and

Tense, and that surface word-order in finite, indicative clauses involving auxiliaries is the result of Asp-T movement. No such movement is observed in English non-finite clauses, where T is filled by *to* (see also Roberts 1993); in French, this movement is optional. French and English are thus primarily distinguished by the lack of main-verb raising in finite contexts, and by the consequent appearance of *do*-support in cases where lowering is blocked, such as negative and emphatic contexts. The paradigms in (3) and (4) below illustrate the parallels and contrasts between these two languages:²

- (3) a. She does not often read letters written by hand.
 b. She has rarely read a letter written by hand.
 c. ?She claims to not have read such a letter.
 d. She may not have read such a letter.
 e. I suggest you not be here when I get back.
 f. For you to have been living there for six years without learning the language is disgraceful.
- (4) a. Elle ne *lit* pas souvent de lettres manuscrites.
 she writes NEG often DET letters handwritten
 ‘She doesn’t often read letters written by hand.’
 b. Elle n’*a* pas récemment *lu* une lettre manuscrite.
 she has NEG recently read a letter handwritten
 ‘She hasn’t recently read a letter written by hand.’

² For present purposes, I ignore the French pre-verbal clitic negation marker *ne*. Pollock (1989) explains its distribution in terms of obligatory Neg-T raising; however, the sole motivation for this move would seem to be to account for its unexpected position. Similarly, I ignore the fact that in English non-finite clauses negation more typically precedes English *to*; cf. (3c) above. It is plausible to think that these anomalies are related.

- c. Elle regrette de ne pas *avoir* lu sa lettre.
 she regrets NEG have read his letter
 ‘She regrets not having read his letter.’
- d. Elle nie absolument (d’) *avoir* écrit la lettre.
 she denies absolutely to have written DET letter
 ‘She absolutely denies having written the letter.’

To determine whether Tense and Aspect are syntactically projected in the same fashion in Vietnamese, one needs first to address the more fundamental question of whether Vietnamese has tense at all. More descriptive literature on Vietnamese offers a full spectrum of views on this matter. At one extreme, one finds the categorical denial of Nguyen (1998: 116)³ who insists that ‘[T]rong tiếng Việt không có phạm trù thì... [In Vietnamese, there is no tense]’; at the other end, Lo Cicero (2001) claims that there is a direct correspondence between the French past, present and future tenses and the Vietnamese elements ‘đã, đang, sẽ’:

La correspondance des temps verbaux du vietnamien aux français, si l'on peut dire ainsi, est simple d'une manière générale: ‘đã’ exprime les temps du passé, ‘đang’ — ou sans ‘đang’ — le présent, et ‘sẽ’ le futur, ces termes précèdent les verbes vietnamiens. Pour mettre en valeur le moment de l'action, la langue vietnamienne se sert donc de termes ou marqueurs comme ‘đang, đã, sẽ.’⁴

³ See also Cao (1998:10), for a near identical claim.

⁴ ‘Broadly speaking, there is a straightforward correspondence between French and Vietnamese tense systems: đã expresses past tense, đang (or without đang) the present and sẽ the future, each of these elements preceding the [lexical] verb. To indicate the time of an action, Vietnamese thus uses markers such as ‘*đang, đã, sẽ*.’ (2001)

The evidence presented directly below suggests that both of these views are mistaken, albeit Nguyen’s position is closer to being correct, in the literal sense that there are no pure tense morphemes in the language; by contrast, Lo Cicero’s claim can readily be shown to be empirically false. However, just because there are no tense morphemes, this does not mean that there is no TP projection.

Consider first, the examples in (5-7) below, which indicate the distribution of *đã*, *sẽ*, and *đang* relative to three VP-external elements: the clausal negation marker *không* (5), manner adverbials such as *cẩn thận* (‘carefully’) (6), and temporal adverbs, such as *hôm qua* (‘yesterday’) (7). It should be clear that *đã* and *sẽ* display the same distribution as do tensed auxiliaries in English (finite) clauses: *đang* shows more variability, but generally behaves much more like an aspectual auxiliary (*cf.* English progressive *be*) than as a tense morpheme. Notice also that just in negative contexts (5a) *đã* has an exclusively preterite, rather than perfect, interpretation (a point to be returned to directly).

- (5) a. Tôi (đã) không (*đã) làm việc đó.
 PRN PAST NEG ASP do job DEM²
 ‘I didn’t do that.’
- b. Tôi (sẽ) không (*sẽ) làm việc đó.
 PRN FUT NEG FUT do job DEM²
 ‘I will not do that.’
- c. Tôi (đang) không (đang) ăn cơm.
 PRN ASP NEG ASP eat rice
 ‘I am not having a meal.’
- (6) 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 DEM¹
 ‘He (has) read the book carefully.’
- (7) a. *Anh Lài đã hôm qua giúp tôi.
 PRN Lai ANT yesterday help me
 ‘Lai helped me yesterday.’
- b. ?[_{TP} Anh Lài hôm qua đã [_{VP} giúp tôi].
 PRN Lai yesterday ANT help me
 ‘Lai helped me yesterday.’
- c. [_{TOPP} Anh Lài thì [_{TP} hôm qua [_{TP} *pro* đã giúp tôi]]]
 PRN Lai TOP yesterday ANT help me
 ‘Lai, he helped me yesterday.’

With respect to *đang*, the examples in (8) quickly dispel Lo Cicero’s claim that this is a marker of present tense: examples (8a) and (8b) show that *đang* can readily appear in past and future time contexts, respectively, while examples (8c) and (8d) express generic—timeless—assertions. Taken together, these examples confirm that *đang* is an aspectual morpheme, expressing durativity (progressive aspect).

- (8) a. Lúc đó, họ đang chơi quần vợt.
 place DEM² PRN ASP play tennis
 ‘At that time, they were playing tennis.’
- b. Sang năm, vào ngày này, chắc tôi đang làm ở Pháp.
 enter year, enter day DEM¹, sure I ASP work in France
 ‘By this time next year, I shall be working in France.’
- c. Trẻ em đang biết rất nhiều điều không nên biết.
 young PRN ASP know very much thing NEG should know
 ‘Young people know (*lit.* are knowing) a lot of things they shouldn’t.’
- d. Hãy quý những gì mình đang có.
 IMP treasure PL what self ASP have
 ‘Treasure what you have (*lit.* are having).’

The tenseless nature of *đang* is re-inforced by the grammatical examples in (9) and (10), which show that *đang*, just like the English progressive *be_ing*, is fully compatible with

perfect *đã* (9) and future *sẽ* (10a); this directly contrasts with the complementary distribution of *đã* and *sẽ*, exemplified in (10b).

- (9) a. Lúc tôi đến, nó đã đang ngủ rồi.
time I come, PRN ASP ASP sleep already
‘When I came, he had been sleeping.’
- b. Vào giờ này tuần tới tôi đã đang nghỉ mát ở Hawaii rồi.
come hour DEM¹ week next I ASP ASP holiday BE Hawaii already
‘By this time next week I will have been holidaying in Hawaii.’
- (10) a. Đừng gọi điện từ 7 đến 8 giờ. Lúc đó chúng tôi sẽ đang dùng cơm tối.
NEG.IMP call tel. from 7 to 8 hour. time DEM² PL I FUT ASP have. meal
even.
‘Don’t call me between 7 and 8! At that time we shall be having dinner.’
- b. Vào giờ này tuần tới tôi (*sẽ) đã nghỉ mát ở Hawaii rồi.
come hour DEM¹ week next I FUT ASP holiday be Hawaii already
‘By this time next week I will have been on holiday in Hawaii.’

Hence, the distributional evidence of examples (5)-(10) is consistent with the idea that *đã* and *sẽ* are pronounced in T, and that *đang* occupies some lower aspectual position. In so far as *sẽ* has an invariant future interpretation, and appears devoid of aspectual interpretation, I will assume that it is base-generated in this position. (This assumption is further supported by its exclusion from *Yes-No* questions; see below.) By contrast, even though *đã* appears in T, its primary interpretation is not as a past tense marker, but as an aspectual morpheme. On one hand, the future perfect and counterfactual examples in (11) demonstrate that *đã* freely occurs in contexts incompatible with a past tense morpheme...

- (11) 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* be working as a teacher instead.'
- b. Đến cuối năm nay, tôi *đã* ra trường.
arrive end year DEM¹ 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.'

...while the examples in (12) show that outside of negation contexts—compare (5a), and (14) below—*đã* expresses *anteriority* (prior inception). As one expects of an aspectual morpheme, its precise interpretation is sensitive to the properties of the associated lexical predicate: thus, with stative predicates such as *sáng* (12a) addition of *đã* signals a change of state (the sky became brighter prior to the Topic Time); with achievement predicates such as *thắng* (12b), *đã* carries the assertion that the event occurred prior to the utterance time, as well as the implication that it had not occurred previously; whereas with activity and accomplishment predicates (12c-d), *đã* signals that the inception of the event or activity precedes the Topic Time (Klein 1994).

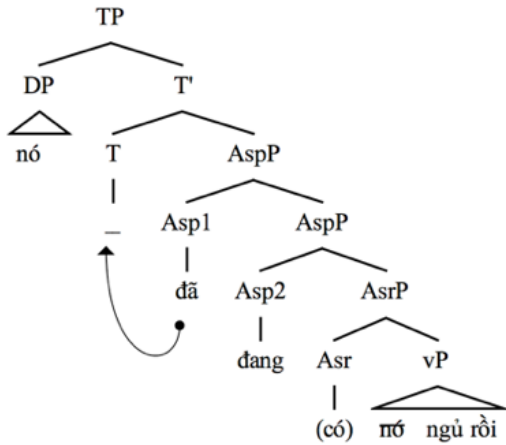
- (12) a. Ngoài đường trời *đã* sáng.
out road sky ANT bright
'It got bright out there.' [from (Trần, K.P. (2008:73)).]
- b. Cuối cùng Andy Murray *đã* thắng cuộc. [from Phan (2013)]
Finally Andy Murray ANT win contest
'Finally, Andy Murray won the contest.'

- c. Tàu đã chạy.
train ANT run
'The train has departed.'
- d. Nó đã viết bài ở văn phòng.
3SG ANT write paper at office
'He wrote a paper at the office.'

Crucially, the perfect/anterior value contributed by *đã* should be distinguished from perfectivity or completion (which is signalled by post-verbal particles, see below): except for achievement predicates, where event completion prior to the utterance time is entailed by their meaning, *đã* does not entail, or even imply completion of the event or situation. This is supported by the absence of any completion entailment in the examples in (13) below (similarly, (12b) may be true of a situation in which the paper has been started, but is still unfinished):

- (13) 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.'

(14)



All of the preceding examples involving *đã* are consistent with the analysis sketched in (14), in which *đã* is initially merged in Asp and subsequently raised to T. On this analysis, the complementary distribution of *đã* and *sẽ* in (15a-b) exactly mirrors the complementarity of modals with finite aspectual auxiliaries or *do*-support in English (15c-d).

- (15) a. Đến cuối năm nay, tôi (*sẽ) đã ra trường.
 arrive end year DEM¹ PRN FUT ANT go.out.school
 'I *shall have* graduated by the end of the year.'
- b. Vào giờ này tuần tới tôi (*sẽ) đã nghỉ mát ở Hawaii rồi.
 come hour DEM¹ week next I FUT ASP holiday be Hawaii already
 'By this time next week I will have been on holiday in Hawaii.'
- c. *She will has graduated by the end of this year.
- d. *Kerry might does indeed know the way to solve this.

To this point, the Vietnamese data are fairly mundane when considered from a theoretical perspective: the interim conclusion must be that Vietnamese does have syntactic tense (TP), but that the position when lexicalized is primarily occupied by an aspectual morpheme. However, matters become more interesting when negative contexts are taken into

consideration. So consider now the interactions and interpretive alternations involving *đã*, the default clausal negation morpheme *không* (‘not’) and its perfect alternant *chưa* (‘not yet’), exemplified in (16)-(18) below, many of which also feature the ‘assertion’ marker *có*.

First, the examples in (16) demonstrate the mutual compatibility of *đã*, *không* and *có* in emphatic declarative clauses. While the distribution of these elements is exactly as predicted, the interpretive restriction (already seen in (5a)) is not: here, the aspectual reading is cancelled, *đã* is exclusively interpreted as a preterite.

- (16) a. Hôm qua anh ấy đã không có đến nhà chị.
 yesterday PRN DEM² PAST NEG ASR arrive house prn
 ‘He didn’t go to your house yesterday.’
 b. Trong bản khai, nó đã không có nói gì đến tổ chức cả.
 in CLS state. PRN PAST NEG ASR say what about organiz. all
 ‘In his statement, he didn’t say anything at all about the organization.’

The observation that *đã* is unambiguously a past time marker in negative contexts is originally due to Trinh (2005), who presents the minimal contrast in (17a) and (17b) below. Trinh (2005) treats this restriction as a case of lexical homophony: on his account, there are two separate lexical entries in the Vietnamese lexicon—perfect *đã*₁ and preterite *đã*₂, each occupying distinct underlying positions. In affirmative contexts, perfect *đã*₁ is taken to be initially inserted under PERF, an aspectual category close to—or just inside—the VP, and raised to T. Negation is assumed to block this raising, leading to the insertion of an alternative morpheme—*đã*₂—directly to the T node, which yields the exclusive preterite reading in negative contexts.

- (17) a. Nó đã đọc sách. [perfect~preterite]
 PRN PAST/ASP read book
 ‘He read books/has read books.’

- b. Nó *đã* không đọc sách. [perfect (negative)]
PRN PAST NEG read book
‘He did not read books./*He has not read books.’
- c. Nó *chưa* đọc sách. [perfect (negative)]
PRN not.yet read book
‘He has not read books.’
- d. Nó *đã chưa* đọc sách. [past perfect (negative)]
PRN PAST not.yet read book
‘He had not read books.’

Duffield (2013a, b) offers an analysis that is very close in spirit to Trinh’s original treatment, but which dispenses with homophony: on the revised (‘multifunctional’) analysis, only one underspecified *đã* is lexically represented: this inherits a *dual* interpretation if inserted in Asp and moved to T, but only has a temporal interpretation if inserted directly into T. Aside from the massive redundancy implied by Trinh’s analysis—as Duffield points out, *đã* is wholly typical of most Vietnamese functional morphemes whose interpretation varies systematically according to their structural position (*không* and *có*, for example, and most of the other functional morphemes discussed in this article likewise have multiple interpretations)—the homophony account fails to explain two cross-linguistic facts. The first observation is that affirmative ‘present perfect’ forms in Modern Romance and Germanic varieties also display perfect~preterite ambiguities: the addition of a temporal adverbial (*gisteren* ‘yesterday’) to the Dutch sentence in (1b), for example, automatically yields a preterite interpretation; with respect to Chinese, Lin (2005) claims that the aspectual particle *le* displays a similar ambiguity. The second point to observe is that other languages also exhibit constraints on negative/perfect interactions—see Matthews (1990), also Miestamo & Van der Auwera (2011): once more in Chinese, *le* appears to be incompatible with both *bu*

(18b) and *meiyou* (18c). Hence, treating the Vietnamese interaction in terms of an arbitrary lexical specification is unsatisfactory at best.

- (18) a. ta qu le faguo.
 3SG go LE France
 ‘He went to France.’/ ‘He has been to France.’
- b. *ta bu qu le faguo.
 3SG NEG go LE France
 ‘He did not go to France.’ (Li 1999:235)
- c. *ta meiyou qu le faguo.
 3SG not.have go LE France
 ‘He hasn’t been to France.’ (Linda Badan, p.c.)

Trinh’s observation in fact needs to be understood as part of a wider paradigm of interactions between past, perfect and negation morphemes in Vietnamese, a paradigm that (minimally) includes the pair of sentences containing *chua* in (17c) and (17d) above. Example (17c) shows that it is wholly grammatical to make a perfect/negative assertions—just as long as *chua* replaces both *đã* and *không*—while the acceptability of (17d) demonstrates that that there is no structural incompatibility between *đã* and *chua*, but makes clear that the negative constraint still holds: rather than the expected perfect interpretation, *đã chua* only admits a past perfect reading (as indicated by the gloss).

Both previous proposals, Trinh (2005) and Duffield (2013a), share the assumption that clausal negation blocks what would otherwise be a licit connection between T and a lower functional head (Asp), (implicitly transferring to Vietnamese the Chomsky/Pollock (1989) analysis of *do*-support as a failure of T-lowering). An obvious embarrassment for both accounts, however, is the fact that double insertion of *đã*—simultaneously above and below

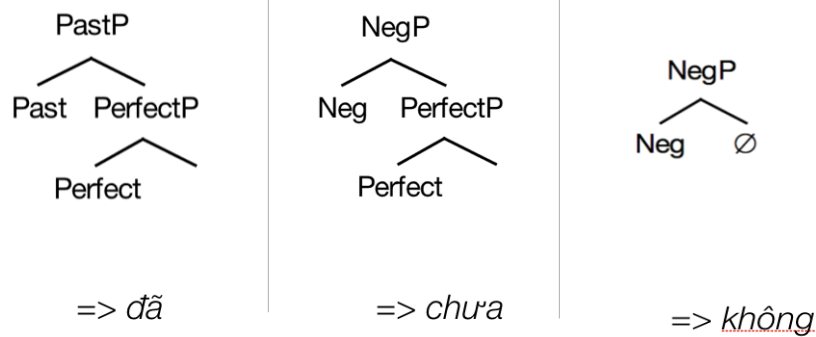
negation—is ungrammatical, as shown by the examples in (19) below: indeed, in contrast to English or French, unraised perfect *đã* is never possible.

- (19) a. *Anh-ấy *đã* không *đã* đến.
 PRN PAST NEG ANT come
 ‘He didn’t come.’
- b. *Anh-ấy *đã* chưa *đã* đến.
 PRN PAST NEG_{PRF} ANT come
 ‘He hadn’t come.’

On previous movement analyses, there is no way to explain this constraint other than through appeal to the avoidance of syntactic haplology, which seems *ad hoc* at best: any appeal to morphological feature-checking seems even more unlikely given the isolating nature of the language. In response, Phan & Duffield (2016, in prep.) offer an alternative Nanosyntactic solution, which covers the data in (15)-(17), and which also explains the impossibility of double-*đã* insertion.

Nanosyntax (Starke 2009, Baunaz & Lander to appear, Caha, to appear) conceives of lexical entries as competing pre-formed syntactic fragments—or L-trees—which can be combined in to derive syntactic representations (S-trees) in a one-to-many fashion; that is, a given L-tree may fit a larger or smaller set of structural nodes. The various principles that determine which L-tree best satisfies a particular section of a syntactic build—*Superset Principle*, *Cyclic Override Principle*, *Elsewhere Principle* etc.—account for collocational restrictions, and cases of morphological suppletion, while dispensing with the need for head-movement operations. In the case at hand, the lexical entries (L-trees) for *đã* and *chưa* and *không* are as in (20) below; the relevant Nanosyntactic principles are given in (21):

(20)



- (21) a. Superset Principle. An L-tree can match more than one S-tree: for a successful match, the L-tree must be the same size or larger than the S-tree (Caha 2009, 2014);
- b. Elsewhere Principle. When more than a single L-tree can lexicalize an S-tree, the L-tree with the fewest unused features is chosen;
- c. Principle of Cyclic Override. Assuming that derivation is built bottom-up, later, higher-level spellouts cancel out previous, lower-level spellouts (Lander 2016).

Phan & Duffield (in prep.) offers a fuller account of the Nanosyntax approach to Vietnamese. Here, it suffices to consider how the analysis derives: (a), the ambiguity of *đã* in affirmative contexts (17a); (b), the preterite-only interpretation in negative contexts with *không* (17b); and (c) the blocking effects of perfect *chưa* (17c,d).

- In the case of affirmative perfect contexts, only PerfectP is projected. The lexicon offers two ways of spelling out the perfect: *đã* or *chưa*: by the Superset principle, both L-trees for *đã* in and *chưa* in (20) are supersets of S-tree

PerfectP). The Elsewhere Principle resolves the competition: the L-tree for *đã* wins out since it has fewer unused features. PerfectP spells out as *đã*.

- As for the preterite interpretation of *đã* in affirmative contexts, two derivational steps are involved:
 - At the first step, we also begin from PerfectP; as before, the best match in the lexicon is the L-tree of *đã*, so PerfectP is spelled out by *đã*.
 - Next, PastP is inserted on top of PerfectP. There is an L-Tree match for the whole trunk PastP>PerfectP in the lexicon, which is spelled out by *đã*, overriding the first spellout. **đã đã* is ruled out by the principle of Cyclic Override.
- In case of past negative contexts involving *không*, there are once again two steps in the derivation of this section:
 - Beginning with NegP, there are two matches in the lexicon: *không* or *chưa*. The Elsewhere Principle resolves the competition: the L-tree for *không* involves fewer unused features, thus NegP spells out as *không*;
 - Next, PastP is built on top of NegP (there being no match for the whole trunk section PastP>NegP in the lexicon). Here, the lexicon only allows one scenario: NegP is spelled-out by *không*, PastP is spelled-out by *đã*. This yields the correct word order (*đã* precedes *không*), with the right interpretation (*đã* is interpreted as preterite only).
- Perfect negative contexts involving *chưa* also involve several steps in the derivation:

- For perfect negative *chura* contexts (example 17c), the derivation starts from PerfectP: the best match in the lexicon is the L-tree of *đã*, so PerfectP is spelled out by *đã*. The derivation continues, building NegP on top of PerfectP: for this, there is one match for the NegP>PerfectP in the lexicon, spelled out as *chura* (the L-tree for *chura*). This higher spell-out *chura* cancels out the previous spell-out *đã* (so **chura – đã* is ungrammatical due to the Cyclic Override principle).
- In case of past perfect (17d), PastP is built on top of NegP>PerfectP. There is no match for the whole trunk in the lexicon. Here, the lexicon only allows one possibility: NegP>PerfP is spelled-out by *chura*, and PastP is spelled-out by *đã* (by the Superset Principle). **Double-đã* (19) is ungrammatical due to Cyclic Override principle.

To a first approximation, this analysis derives the paradigm in (17): for further details, see Phan & Duffield (in prep.). On the understanding that certain issues concerning *không* remain unresolved, we can now turn attention to functional categories situated lower within the IP domain, specifically, those concerned with Assertion, Mood and Modality.

2.2 Assertion, Mood and Modality

For Klein (1998), the notion of Finiteness is viewed as composite of two separate concepts: Tense and Assertion (aka ‘Assertion validity’): whereas Tense expresses the time of a given event or situation, Assertion ‘marks the claim — the fact that the situation described by the utterance indeed obtains, in contrast to the opposite claim. Klein 1998:xx).’ (In other frameworks, assertion validity seem to be close to the notion of ‘realis’, or event

actualization; see, for example Desclés (2016)). Klein draws attention to the intonation contrasts given in (22) to (24) below: these show that in English, emphasis placed on finite auxiliaries may contrast either tense (22b) and/or assertion validity (22c), whereas emphasis on tensed verbs serves only to contrast tense and/or lexical meaning (23b,c); in order to focus assertion validity in sentences without aspectual auxiliaries, *do*-support must be invoked, as in (24). As discussed in Duffield (2007, 2013), these paradigmatic distinctions imply that *do*-support is more than a ‘Last Resort’ strategy to save Tense inflection; within the Pollock/Chomsky (1989) framework adopted here, they also imply that—unlike tense features—assertion features may not be lowered (even in the absence of negation).

- (22) The book **was** on the table.
 b. The book is on the table.
 — No, the book **was** on the table.
 c. The book was not on the table.
 — No, that’s wrong, the book **was** on the table.
- (23) a. John loved Mary.
 b. John **loved** Mary, but he doesn’t love her now.
 c. John **loved** Mary, but he didn’t adore her.
- (24) The idea that he didn’t love her is plainly wrong:
 — John (really) **did** love Mary.

Exactly this (pure) assertion function is expressed in affirmative Vietnamese sentences by the preverbal particle *có*, which is the next element encountered after Tense>Negation>Aspect, moving down the clausal spine. The examples in (25) demonstrate the contrastive function of *có*, including its compatibility with sentential negation (25b); those in (26) reinforce the point that *có* occurs relatively low in the clause, even below the progressive auxiliary *đang*, but still above manner adverbials (26c):

- (25) a. Anh có mua sách!
PRN ASR buy book
'He DID buy the book!'
- b. Anh *không* có mua sách!
PRN NEG ASR buy book
'He did NOT buy the book!'
- c. Bà *đâu* có phải là người Hành-thiện!
PRN DAU ASR right cop person Hanh-Thien
'She is NOT a native of Hanh Thien, I tell you!'
- d. Có (chứ!)
ASR (exclamative)
'(He) did (indeed)!'
- (26) a. Tôi (*đã*) có (**đã*) gặp anh Phòng một lần từ thời còn ở Tiên Phước.
I ANT ASR ANT meet PRN Phòng one time from time still be.LOC Tien
Phuoc
'I met Phòng once when I was still in Tiên Phước.'
- b. Tôi biết là [chị (*đang*) có (**đang*) yêu một người].
I know COMP PRN PROG ASR PROG love one person
'I know that she's in love with someone.'
- c. Anh ấy đã (?có) cẩn thận (?có) đọc quyển sách này.
PRN.DEM ANT ASR carefully ASR read CL book DEM¹
'He (has) read the book carefully.'

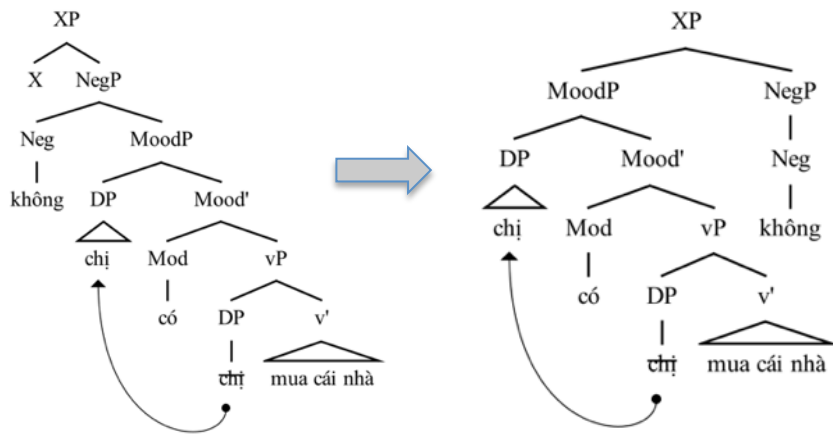
These data thus provide further *prima facie* evidence for the structure in (14) above. A question that arises at this point, however, is whether assertion (validity) is best viewed as an atomic property, or as one feature of a multivalued functional node. The latter conclusion is suggested by the fact that *có* exhibits even greater multifunctionality than English auxiliary *do*: as illustrated by the examples in (27), *có* also appears in *Yes-No* questions (27a), as a stand-alone light verb (\approx 'have') (27c), and as an existential predicate in (27d) (with unraised subject; note the clause-initial position of the future morpheme *sẽ*, indicating an

empty {Spec, TP}). What is more, *có* also occurs in negative imperatives, as will be seen directly:

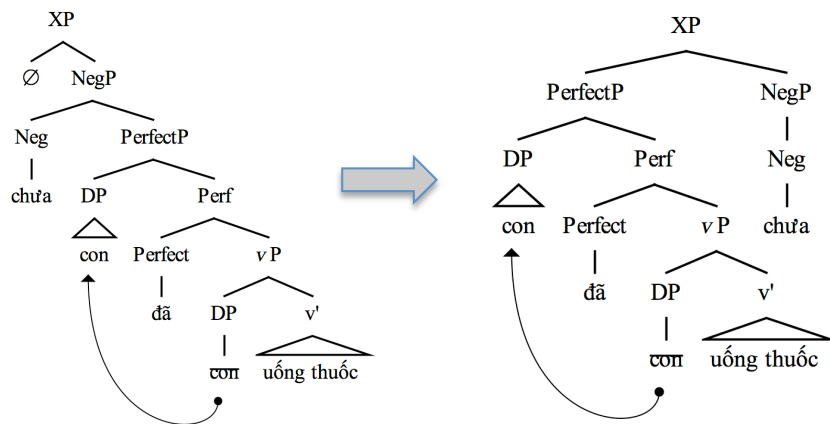
- (27) a. Chị (có) mua cái nhà không.
 PRN ASR buy CL house NEG
 ‘Did you buy the house?’ (*not* ‘You didn’t buy...’)
- b. Con uống thuốc chưa?
 PRN drink medicine not.yet
 ‘Have you taken your medicine?’
cannot mean ‘You [child] have not taken your medicine.’
- c. Cô ta sẽ có quá nhiều tiền mà không thể đếm được hết.
 PRN FUT HAVE so much money RM not can count can all-up
 ‘She will have so much money that she won’t be able to count it.’
- d. Sẽ có người cần anh. (song title)
 FUT exist person need you
 ‘There will be someone who needs you.’

Notice in passing the (obligatorily) final position of the negation morpheme *không* in construction with *có* in *Yes-No* questions. A similar brace construction is observed with *đã...chưa* in (27b): significantly, in contrast to indicative constructions *cf.* (17d), *đã* in *Yes-No* questions has a perfect, rather than past perfect, interpretation). Although space constraints preclude full discussion of this Neg~Q alternation, which is analyzed in Duffield (2013a), the facts presented there are most consistent with the phrasal movement analyses sketched in (28) and (29) below:

(28)



(29)



These analyses are hardly immune to criticism: see, for example, Nguyễn Đình Hoà (1997), Law (2015), for alternative accounts. The treatment in (29) of (perfect) *đã...chưa* in (27b) is also hard to reconcile with the Nanosyntactic derivation of *chưa* perfect structures, such as

(17c) above.⁵ Given this, it seems likely that this analysis should be re-thought. Whatever supercedes it, however, will need to capture the intuition that medial and clause-final *không* are instances of the same multifunctional morpheme, arguably of the same functional projection. This is strongly suggested by the fact that there are no negative *Yes-No* questions in Vietnamese (in direct contrast to tag questions), as evidenced by the paradigm in (30):

- (30) a. Anh ấy không đến *không/(có) phải không?
 PRN DEM NEG come NEG ASR right NEG
 ‘Isn’t he coming?/He isn’t coming, is he?’
- b. Bạn chưa xem phim này *không/(có) phải không?
 friend NOT.YET see film DEM NEG ASR right NEG
 ‘Haven’t you seen the film yet?/You haven’t seen the film yet, have you?’
- c. *Mày không có xu nào không/(có) phải không?
 PRN NEG have money which NEG ASR right NEG
 ‘Haven’t you got any money?/You haven’t any money, have you?’

It should be clear that this constraint follows directly from the analyses in (28) above, as does the fact that preterite *đã* is excluded from *Yes-No* questions: this is shown by the minimal contrast between (31a) and (31b = 16a).⁶

⁵ The two analyses can be reconciled, but one would need to assume that *chưa* is attached only after the PerfP has been raised out of the scope of NegP (otherwise the Cyclic Override Principle should cancel the lower *đã*). If that were the case, however, then the Elsewhere Principle would seem to favor insertion of *không*, rather than *chưa*, as the realization of bare negation.) There is thus an obvious analytic tension here, which must be resolved.

⁶ It seems very likely—as Nguyễn Đình Hoà (1997) supposes—that *Yes-No* questions developed diachronically from alternate bi-clausal ‘Yes-or-No’ questions involving predicate reduplication, and in which *có* functioned as an emphatic affirmative marker (‘indeed-VP (or) not-VP’): that is to say, the original construction involved ellipsis under identity of the second predicate phrase; see also Law (2015). However, final *không* now appears

- (31) a. Hôm qua anh ấy (*đã) có đến nhà chị *không*?
 yesterday PRN DEM² PAST ASR arrive house prn NEG
 ‘Did he go to your house yesterday.’
- b. Hôm qua anh ấy đã *không* có đến nhà chị.
 yesterday PRN DEM² PAST NEG ASR arrive house prn
 ‘He didn’t go to your house yesterday.’

Returning now to the other functions of *có*, the examples in (27) imply that *có* expresses a mixture of modal (Mood) and argumental properties: on the one hand, it is often interpreted as a *realis* marker Duffield (2013b), at the same time, as discussed in Duffield (2007, 2011), *có* seems to function as an ‘Event Argument’, where the presence of *có* in a sentence implies a specific event or situation (stage-level property). Klein’s own discussion (1998: xx) of the concept of assertion validity suggests that it should alternate with other modal (Mood) features. He writes:

‘It is plausible to assume that tense only marks that some arbitrary time span, for which we keep the term TT, placed somewhere on the time axis, and that either ASS) or, depending on the particular illocution, some other “modality marker” assigns a special function to this time span. So, TT can be the time span for which a claim is made, but it can also be the time span at which some obligation is put into force (or *in whichever way we want to analyse the role of the imperative*) [emphasis mine].’

With this in mind, it is interesting to observe that imperative morphemes in Vietnamese occupy a sentence-medial position very similar to that of *có*: to the right of the subject, (apparently) immediately above the predicate phrase. The examples in (32) illustrate the

fully grammaticalized within a monoclausal structure in Modern Vietnamese, so some alternative treatment is required.

distribution of the affirmative imperative markers *hãy* and *cứ* (32a,b), as well as the negative imperative *đừng* *chớ* (32c); see also (10a) above.

- (32) a. (Các anh) *hãy* đọc bài này!
 PL PRN IMP read lesson DEM¹
 ‘Read this text!’
- b. (Anh) *cứ* hỏi!
 PRN IMP ask
 ‘Go ahead. Ask!’
- c. (Anh) *đừng* nói to!
 (PRN) NEG.IMP talk loud
 ‘Don’t speak loudly!’

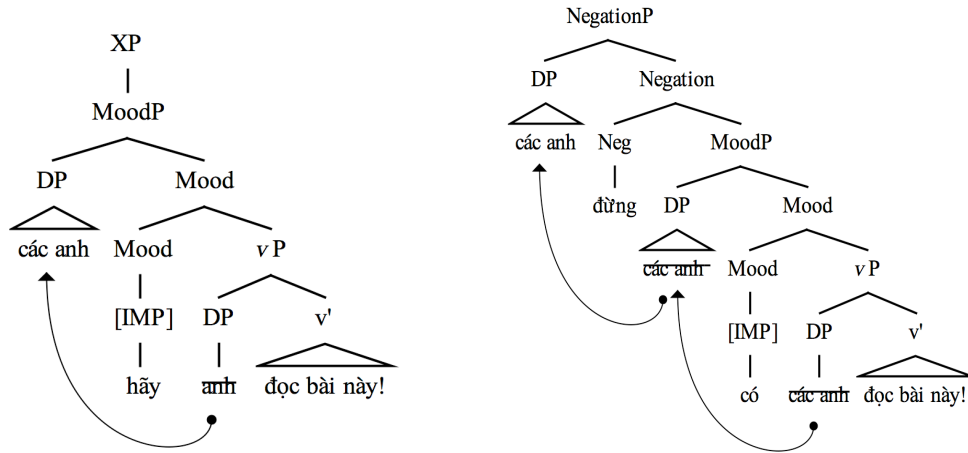
Klein’s speculation regarding Mood implies that *có* should be in complementary distribution with imperative morphemes. It turns out though that this is only true of affirmative imperatives: negative imperatives, as in example (33c) below, are perfectly compatible with *có*, suggesting something like the phrase-structure trees in (34):

- (33) a. *Các anh *hãy có* đọc bài này.
 PL PRN IMP ASR read lesson DEM¹
 ‘(you_{pl}) Read this text!’
- b. *Anh *cứ có* hỏi.
 PRN IMP ASR ask
 ‘Go ahead. Ask!’
- c. (Anh) *đừng/chớ có* nói to!
 PRN NEG.IMP ASR talk loud
 ‘Don’t speak loudly!’

Hence, though it may be no more than coincidence, Vietnamese *có* finds a further parallel with English *do*-support in imperatives: excluded, in most English varieties, in affirmative contexts (%‘Do come and see me next week’), but obligatory in negative contexts (‘Don’t be an idiot!’/*‘Be not an idiot’). Nevertheless, exactly why *do*-support is necessary in

English negative imperatives, but not, say, in subjunctive contexts ((3e) above), remains unclear: see Pollock (1989), cf. Henry (1995).

(34)



Now, if it is correct that (indicative) *có* and (imperative) *hãy* occupy the same low ‘modal’ position, one might wonder about the position of root modal auxiliaries (*nên*, *được*, *phải*) which also appear low in Vietnamese structure, below negation (35a), and which—in contrast to English—are fully compatible with both temporal (35b) and aspectual auxiliaries (35c,d):

- (35) a. Những ai yêu bóng.đá thì (*nên) không (nên) bỏ lỡ clip này.
several who love football TM should NEG should miss clip DEM¹
‘Those who love football, (they) should not miss this clip.’
- b. Tôi (*nên) sẽ (nên) làm gì nếu bị sa.thải?
PRN should FUT should do what if PASS fire
‘What should I do if I get fired?’
- c. Lẽ ra lúc này họ (*nên) đã (nên) đi rồi.
right out when DEM PRN should ANT should go already
‘He (should) have left already.’

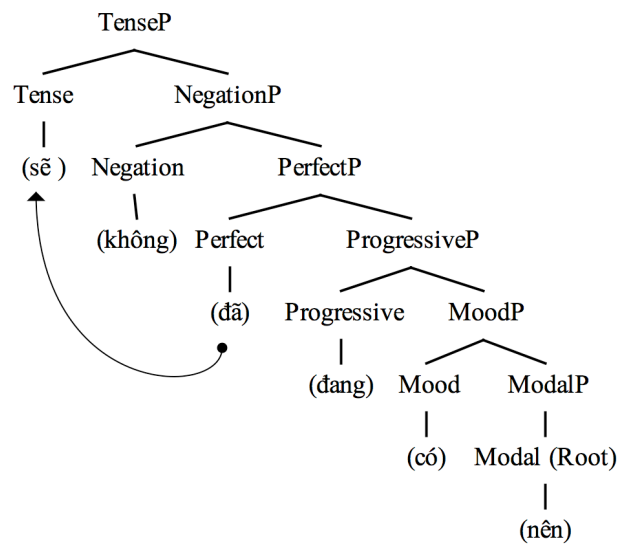
- d. Lẽ ra lúc này mình (?nên) đang (nên) làm một thứ gì đó.
 right out time DEM PRN should DUR should do one thing what DEM
 ‘I should have been doing something at the moment/by now.’

Once again, the simplest assumption, *viz.*, that Mood and modals compete for the same structural position, proves to be incorrect. This time however, the shift is in the opposite direction: as the *Googled* examples in (36) attest, interrogative *có* appears to the left of root modals:

- (36) a. Em có nên mua Audi A4 2010 không ạ?
 PRN [+Q] should buy Audi A4 2010 NEG EXCL
 ‘Should I buy a 2010 Audi A4?’
 b. Em có nên bỏ chồng không?
 PRN [+Q] should leave husband NEG
 ‘Should I leave my husband?’

On the continuing assumption that indicative, interrogative and imperative *có* instantiate the same functional node, the position of root modals implies the existence of one final functional position, immediately above the thematic predicate phrase. Combining all of these distributional facts yields the extended IP-cartography in (37) (with the proviso that some projections are mutually exclusive):

(37)



This concludes the basic description of the Vietnamese IP-domain. Before examining functional categories within the thematic domain—that is to say, to the right of the underlying subject—it is worth paying some more attention to modal auxiliaries since they exhibit two interesting properties: first, as indicated by the examples below, they are the only functional categories that may appear both pre- and post-verbally in indicative clauses; second, they offer near-canonical examples of grammatical multifunctionality in the sense of Travis, Bobaljik & Lefebvre (1998):⁷

‘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

⁷ The quotation appears in a grant application submitted by the authors cited: for a variety of reasons, the idea was not subsequently developed.

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 & Lefèvbre 1998).’

Consider, then, the paradigm for *được* (\approx CAN) in (38), from Duffield (1998, 1999):

- (38) 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.’

The examples in (38) demonstrate how Vietnamese word order clearly disambiguates different readings of modal *được*: where the modal appears pre-verbally, the only available reading is deontic, whereas in immediately post-verbal position (before the object noun-phrase), the reading is aspectual (perfective), instead of modal.⁸ A point worth mentioning in passing is that unlike post-verbal modals, which compete for a single functional slot, pre-verbal modals are iterable: where this happens, the higher modal (further to the left) is interpreted epistemically (epistemic>deontic), as in (39):

⁸ For present purposes, I set aside the post-VP occurrence of *được* (38c). The main justification for this is that whereas all of the other modal auxiliaries participate in the pre-verbal/postverbal alternation—see examples (39)–(41) below—*được* is the only modal auxiliary to occur after the VP. For analyses of final *được* see Duffield (1998, 1999), Phan & Duffield (in prep.); cf. also Simpson (1999), Simpson & Wu (2000), for a similar phenomenon in Thai.

- (39) 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))

What is especially interesting about post-verbal *được* (38b) is that its modal meaning seems to have been almost entirely bleached in this position: as the examples in (40) illustrate, modals that have distinct semantics in pre-verbal position are interpreted in exactly the same way whenever they are inserted post-verbally (as asserting that a particular event actually took place):

- (40) 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.’

At first glance, this reading of the post-verbal modal might seem to be no more than ‘actuality entailment’ in the sense of Bhatt (1999), which arises quite generally when ability modals combine with perfective aspect. So, for example, whereas (41a) only expresses potential, (41b) suggests that the event was in fact realized.

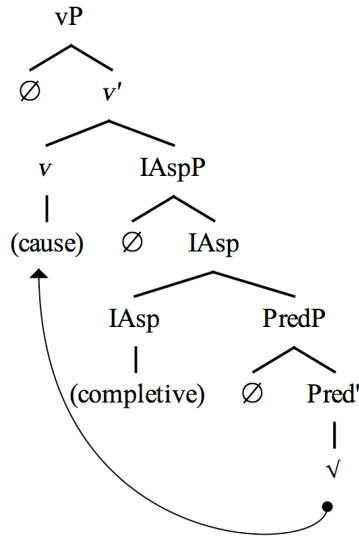
- (41) a. Quang is able to buy the house.
- b. Quang was/has been able to buy the house.
- c. Quang was/has been able to buy the house (for some time), but in the end he (has) decided against it.

On the basis of the cancellability of this inference in English (41c), Hacquard (nd.) argues that the effect is an implicature, rather than an entailment. Vietnamese, however, supports Bhatt’s original label, since consultants are agreed, for example, that (40b) and (40c) both mean that the woman got the job: any ambiguity in the English translation is removed by the fact that the potential reading is expressed by a post-VP modal (compare 40c). Whatever the correct label may be, there is a consensus that perfective—as distinct from perfect—aspect is involved. As will be discussed directly, it is unsurprising from a cartographic perspective that perfective aspect is associated with a position immediately to the right of the lexical verb, what—adopting the label of Travis (2010)—I will refer to as ‘Inner Aspect.’

3. *vP-internal Functional Syntax*

In this penultimate section, I turn attention to those aspects of hidden meaning first mentioned at the outset, that are most intimately associated with the argument structure of the thematic core: (working this time from the bottom up) (i) the boundedness introduced by specific objects, and (ii) the causativity reading implicated by the (underlying) subject DP. The facts presented below suggest that these semantic properties are directly mapped to functional structure, as in (42) below. Once again, thanks to the isolating character of Vietnamese, this mapping is perfectly transparent in particular grammatical constructions.

(42)



Let us first consider the position of post-verbal perfective (or completive) morphemes in Vietnamese, a set that including *xong* ('finish'), *ra* ('out') and *hết* ('end, up'); see Phan (2013) for more extensive discussion. For purposes of illustration, we focus on the first of these elements. As shown by the alternation in (43) below, completive particles may either precede (43a) or follow (43b) the object noun-phrase (here, the bare noun *sách* ('books')). Though both orders are permitted, the change has immediate interpretive consequences: where the object appears to the left of the completive particle, it is obligatorily interpreted as specific (in spite of the absence of any determiner). This constraint is also reflected in the impossibility of fronting overtly marked non-specific indefinites such as *một cái xe* ('one car'), as shown in (44):

- (43) 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.'
- (44) a. *Nó sửa một cái xe *xong* rồi.
PRN fix one CL car PTC already
'He finished fixing one car.'
- b. Nó sửa *xong* một cái xe rồi.
PRN fix PTC one cls car already
'He finished fixing one car.'

These interpretive contrasts find obvious and immediate parallels with sentences in Germanic languages involving telic particles. In Dutch, for example, as discussed in Van Hout (1996, 2000), Thrift (2003), only specific objects may precede the telic particle *op* (\approx Vn. *hết*).⁹

- (45) a. *Het meisje eet koekjes *op*.
the girl eats cookies PTC
'The girl eats up cookies.'
- 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.'

In previous analyses of OBJECT-PTC word order in Germanic (e.g., Borer 1994, Van Hout 2000, Johnson 1990, Travis 2010) it has been assumed that the specific object has been raised from its base position to the Specifier of the aspectual projection headed by the telic

⁹ The Dutch~Vietnamese parallelism is not complete, since Dutch does not tolerate leaving indefinites below *op* (*in situ*) in finite clauses (**Het meisje eet op koekjes*). Presumably, this is ruled out for independent reasons, perhaps having to do with Case.

particle. The fact that finite verbs in Dutch raise out of the thematic domain—Dutch being a Verb second language—as well as the complications that arise from restructuring in infinitival constructions (Wurmbrand (2001) leave it unclear whether this aspectual projection in Dutch is *external* to vP, as more generally assumed, or *internal*, as diagrammed in (42) above. Travis (2010) argues for the latter position: if this is correct, then the Vietnamese and Dutch facts are directly assimilable to one another.

The minimal contrasts in (46) offer further evidence of the aspectual function of *xong*, in demonstrating that telic particles (46b) and quantified objects (46c) play an equal and complementary role in signalling an entailment of completion. (Example (46a), where no such entailment is observed, reinforces the claim, made earlier, that preverbal *đã* is a perfect, not perfective marker: that is, it signals inception, not completion.)

- (46) 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 examples just cited (43-44, 46) thus provide *prima facie* support for a vP-internal aspectual projection in Vietnamese, such as that diagrammed in (42). Given this, an observational question that now is whether this aspectual head is the same position occupied by the post-verbal modals exemplified in (40) above.

This turns out not to be the case. As discussed in Phan (2013), post-verbal modals¹⁰ are fully compatible with post-verbal *xong*, *ra*, *hết* etc. Upon reflection, this is perhaps unsurprising since the two elements serve different semantic functions: as Phan points out, unlike completive particles which are restricted to lexically atelic predicates, post-verbal modals are more correctly described as *resultative* particles. The examples in (47) below show that where both elements are projected, they appear in a fixed order (completive precedes resultative):

- (47) a. Cuối-cùng nó cũng lau (*được) xong (được) cái bàn.
 final PRN also wipe RES ASP RES CL table
 ‘He finally finished wiping down the table.’
- b. Họ đã tìm (*được) ra (được) cách chữa bệnh AIDS
 3p PRN seek RES out RES way treat disease AIDS
 ‘They have found the cure for AIDS.’

While this ‘resultative-last’ constraint is unremarkable from a cross-linguistic perspective, see for example, Nicol (2002), it is nonetheless striking just how transparently the span of events (and situations)—from anticipation (*sẽ*) to inception (*đã*) to duration (*đang*) to completion (*xong*), to result (*được*)—is iconically reflected in the cartography of Vietnamese clauses; cf. Rizzi (2002), Cinque & Rizzi (2008), Ramchand (2008), also Haiman (1980, 1984).

Before concluding this examination of the functional syntax of Vietnamese, it is necessary (for the sake of completeness) to consider the realization of the higher *v* node diagrammed in

¹⁰ It should be acknowledged that post-verbal resultative CAN is an areal phenomenon—see, for example, Enfield (2001, 2005), Cheng & Sybesma (2004); also Simpson (1998), Simpson & Wu (2000), for clause-final CAN in Thai.

(42), which, at least since the work of Hale & Keyser (1993) has generally been taken to license the ‘external’ argument, or ‘underlying subject’ argument in regular finite clauses. The Vietnamese examples considered thus far have all involved active, non-ergative, and *inherently* causative, predicates: in all of these cases, I will assume the same V-*v* raising analysis that is normally assumed for English.¹¹ But what about contexts where cause is not inherent, and is added in the course of the syntactic derivation? In the absence of derivational morphology, how does Vietnamese do causativization?

Vietnamese has two analytic causative constructions: an unrestricted bi-clausal construction involving the light verbs *làm* and *cho* (literally ‘make give’) and a mono-clausal construction involving just the first of these bare causative predicates (*làm* only). The examples in (48) and (49),¹² which feature the reciprocal anaphor *nhau* as DP₂ subject, offer direct evidence of this bi-clausal vs. monoclausal contrast: cf. Kwon (1994). Example (48b) shows that *làm cho* patterns with *muốn* (‘want’) in selecting a clausal complement: here, the DP₁ subject antecedent *họ* is unable to bind *nhau*, while the lower verb *khóc* (‘cry’) can be modified by a modal *phải*. Conversely, in (49b), the lower subject under *làm* may be bound

¹¹ An obvious difference between the two languages is that this internal verb-raising ‘skips’ the Asp node—and any other vP-internal functional categories, in Vietnamese apparently in violation of the Head Movement Constraint (Travis 1984). This could be viewed as a significant problem, unless—as seems reasonable—the HMC is taken only to apply to movement steps that are morphologically-driven. As an aside, it is plausible to think that the distributional and interpretive differences between Cantonese post-verbal *dak* (Cheng & Sybesma 2004) and Vietnamese post-verbal *được* can be derived according to whether V incorporates with the modal head on its way to *v* (Yes in Cantonese—V-R-*v*, No in Vietnamese V-*v*); see Duffield & Phan (in prep.).

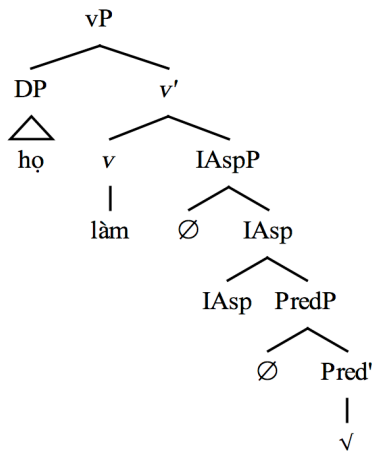
¹² The data in (48) and (49) are originally due to Tue Trinh (pers. comm.).

by *họ*; on the other hand, the lower predicate must now be bare. ((49c) shows that the re-introduction of *cho* blocks A-binding.)

- (48) a. Họ muốn [là [John/*nhau sẽ sống hạnh phúc]]
 they want COMP John/e.o. FUT live happy
 ‘They want John/each other to live happily.’
- b. Họ làm [(cho) [John/*nhau phải khóc]].
 they make give John/e.o. must cry
 ‘They made John/Each other have to cry.’
- (49) a. ?Họ nhìn thấy nhau làm việc.
 they see e.o. do work
 ‘They saw each other working.’
- b. Họ làm nhau (*phải) khóc.
 they make each other must cry
 ‘They made each other cry.’
- c. *Họ làm [cho [nhau khóc]]
 they make give e.o. cry
 ‘They made each other cry.’

Postponing any further analysis of the bi-clausal construction, consider now the possibility that simple *làm* is a pure lexicalization of (causative) *v* in (42), with DP₁ in its specifier, as in (50).

(50)



This analysis immediately yields the prediction that transitive and strongly unergative predicates cannot be embedded under simple *làm*, since the projection needed to license their (DP₂) subjects is already filled by DP₁ (underlyingly). As the examples in (51), from Duffield (2011), show, this prediction is fully borne out: in direct contrast to parallel cases where *cho* is inserted, all of these examples are markedly unacceptable:

- (51) a. *Tôi làm [đưa con gái *giúp* anh ấy].
 I make CL CL girl help PRN DEM
 ‘I make the girl help him.’
- b. *Tôi làm [đưa con gái *nhảy*].
 I make CL CL girl dance
 ‘I make the girl dance.’
- c. *Tôi làm [đưa con gái *hát*].
 I make CL CL girl sing
 ‘I make the girl sing.’
- d. *Tôi làm [đưa con gái *ngủ*].
 I make CL CL girl sleep
 ‘I make the girl sleep.’

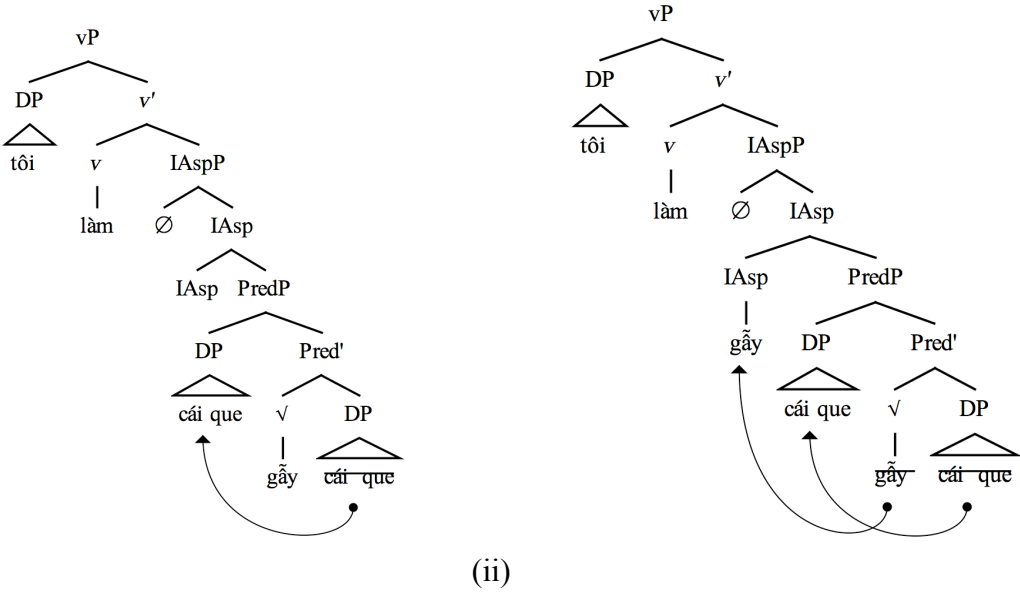
At the other end of the thematic spectrum, where the sole argument of the lower predicate is a pure (change of state) Theme—as in the case of *gãy* (‘break’) or *rách* (‘tear’)—simple *làm* causatives are fully grammatical: in such cases, as shown in (52) and (53), an alternation is observed between a (preferred) post-verbal position for DP₂ and a marginal—though still acceptable—pre-verbal position:¹³

- (52) a. Tôi làm gãy cái que.
 I make break CL stick
 ‘I broke the stick.’
 b. Tôi làm rách tờ giấy.
 I make torn CL paper
 ‘I tore the sheet of paper.’
- (53) a. ?Tôi làm cái que gãy.
 I make CL stick break
 ‘I broke the stick.’
 b. ?Tôi làm tờ giấy rách.
 I make sheet paper torn
 ‘I tore the sheet of paper.’

In principle, there are a number of different ways of deriving this alternation: it might be that the object shifts within the lower VP, as in (54.i) below; alternatively, the object might be base-generated in {Spec, VP}, while the verb optionally raises to Asp (54.ii); or, given the possibility of a resultative phrase below Asp, transitive predicates may generally raise this far (54.iii) (with optional raising of DP₂ to {Spec, Result} or {Spec, Asp} (54.iii). Other analytic combinations cannot be excluded.

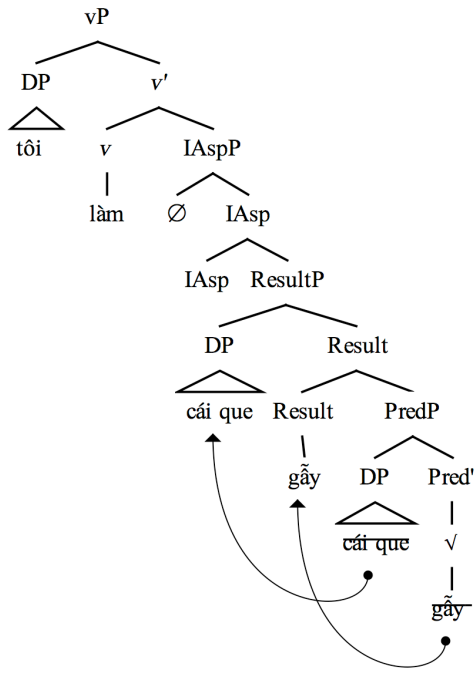
¹³ In this respect, Vietnamese diverges from its neighbors: Chinese shows no unergative-unaccusative split in causatives: Thai, Lao, Khmer, and Burmese disallow inversion quite generally.

(54)



(i)

(ii)



(iii)

However the alternation affecting Themes is ultimately resolved, all of the analytic options presented above offer a position for a DP₂ argument ‘halfway’ between an Agent (the argument of a CAUSE head) and a Theme (the argument of a root predicate/root+RESULT in (54.iii)): if CAUSE/*V* can license its own argument, then there is no conceptual reason that ASP should not be able to do the same. In fact, this is precisely what is argued in Travis (2000, 2010), on the basis of the Malagasy data in (55) and (56) below involves the transitivizing prefix *–ha–* (Phillips 2001).

- (55) a. mijery ‘to look at’ ~ mahajery ‘to notice’
 b. mandinika ‘to examine’ ~ mahadinika ‘to remark’

Travis and Phillips observe that this Malagasy prefix participates in two kinds of derivational alternation: when attached inside an already transitive atelic stem such as *mijery* (‘look at’) (55a), its effect is to alter the meaning to that of a bounded event (where the subject is construed as an Experiencer instead of an Agent). By contrast, when *–ha–* added to an intransitive predicate such as *tsara* (‘beautiful’) the result is a transitive construction whose subject is necessarily non-agentive—an ‘inadvertent cause’ (Duffield 2011, 2014a); hence, *voninkano* (‘flowers’) (56b) but not *Rabe* (56c) (man’s name) can make the house beautiful.

- (56) a. Tsara ny trano. [from Travis (2000)]
 beautiful the house
 ‘The house is beautiful.’
 b. Maha-tsara ny trano ny voninkano.
 PRES.a.ha.beautiful the house the flowers
 ‘The flowers make the house beautiful.’
 (literally, ‘..beautified the house’)

- c. *Maha-tsara ny trano Rabe.
 PRES.a.ha.beautiful the house Rabe
 ‘Rabe make the house beautiful.’

If the same functional projection that licenses inadvertent causes in Malagasy is active in Vietnamese, then it would be expected that the arguments of unaccusative (and other weakly agentive) predicates would occur in this position: in simple *làm* causatives, unaccusative DP₂ subjects should be licensed, but only pre-verbally—in contrast to the Theme DP₂s in (52). Once more, this prediction is directly borne out, as evidenced by the contrast between examples in (57) and (58) below, which work in just the opposite direction from those in (52) and (53) above:

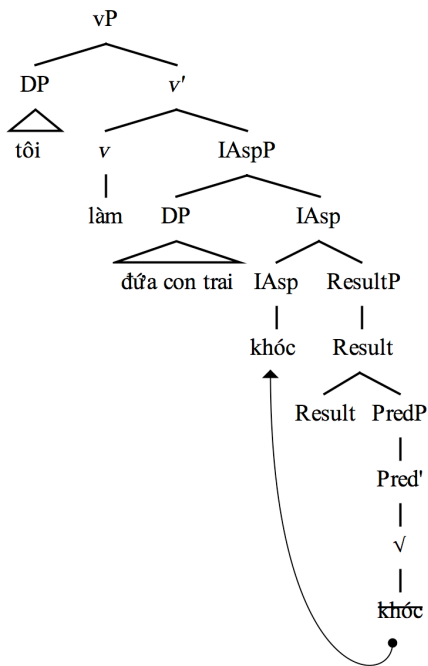
- (57) a. ??Tôi làm *ngã* thang-be.
 I make fall boy
 ‘I made the boy fall.’
 b. ??Tôi làm *biến-mất* thang-be.
 I make disappear boy
 ‘I made the boy disappear.’
- (58) a. Tôi làm thang-be *ngã*.
 I make boy fall
 ‘I made the boy fall.’
 b. Tôi làm thang-be *biến-mất*.
 I make boy disappear
 ‘I made the boy disappear.’

Notice, further, that it is possible to embed an unergative predicate such as *nhảy* (‘dance’) under a *làm* causative just as long as its DP₂ subject is construed as non-agentive/non-volitional: thus, though one cannot make a girl dance or sing (*51b, c), it is quite possible to make a boy cry or laugh (non-volitionally) (59a,b), or even to make a puppet or doll dance

(59c). Once again, as required by the phrasal architecture in (60) below, the non-volitional argument may only appear pre-verbally (assuming a bar on argument lowering).

- (59) a. Tôi làm đứa con trai khóc.
 I make CL CL male cry
 'I made the boy cry.'
- b. Tôi làm đứa con trai cười.
 I make CL CL male laugh
 'I made the boy laugh.'
- c. ?Tôi làm con búp-bé nhảy/hát.
 I make CL puppet dance/sing
 'I make the puppet dance/sing.'

(60)

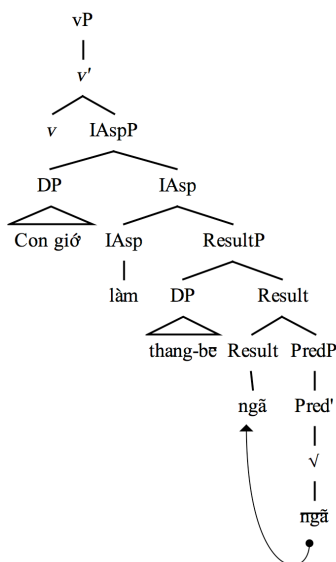


Observe, finally, that the structure in (60) permits an explanation of the fact that *làm*-causatives are also acceptable where both DP₁ and DP₂ are construed non-agentively: the

grammaticality of examples such as those in (61)—which proved an embarrassment for previous analyses, in which only {Spec, IAsp} was available (Duffield 2011)—can now be handled if {Spec, Res} is also allowed to license arguments, as in (62):¹⁴

- (61) a. Con gió làm thang-be ngã.
 CLS wind make CLS boy fall
 ‘The wind blew the boy over.’
 b. Cái chuyện đó làm thang-be cười.
 cls story dem make boy laugh
 ‘The story made the boy laugh.’

(62)



¹⁴ It will not escape close attention that *làm* lexicalizes *v* in the trees above, whereas in (62) below, it lexicalizes Asp. This is not as *ad hoc* as it may at first appear, since Vietnamese causatives typically have a much more inadvertent character than English analytic causatives. This inadvertence is also holds true of Thai causatives—see Vichit-Vadakan (1976)—and may be a more widespread areal phenomenon.

4. Conclusion

As noted at the outset, the principal goal of this paper has been to provide an observationally adequate description of Vietnamese phrase-structure. By systematically plotting the distributions and varying interpretation of functional categories in Vietnamese, all of which are expressed as free morphemes, it has been possible to construct a detailed cartography of the ‘IP-domain’ above the thematic predicate phrase, as well as to chart the functional structure to the right of the lexical verb.

Two properties of the description are especially noteworthy. First, from a crosslinguistic perspective, it is striking how directly the order of free grammatical morphemes in Vietnamese aligns with functional projections established on the basis of diverse languages with richer inflection. The other, more theoretically interesting, point concerns the prolific multifunctionality of grammatical morphemes in Vietnamese: with very few exceptions, each of the functional morphemes discussed above¹⁵ can lexicalize more than one—usually several distinct syntactic positions; when they do, their interpretation is significantly altered. It should be clear that multifunctionality is a phenomenon, not a theory: though I have argued elsewhere that this phenomenon is best handled in terms of ‘Anti-Projection’ (Duffield 2014c), that is evidently not the only conceivable approach. But whatever tack is taken, it should be one that meets the empirical challenges set by the data presented here.

¹⁵ There are many others besides these, including especially the *wh*-NPI-universal quantifier elements *ai*, *gi*, *etc.* and the copula-complementizer-topic marker *là*. See Duffield (2013b, 2014c) for further discussion.

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