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SYNTAX OF VIETNAMESE ASPECT

by

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Abstract

The aim of this thesis is two-fold: to develop an articulated Vietnamese clause structure in two syntactic domains: VP-external and VP-internal in the spirit of generative grammar, and to see how this functional architecture is supported empirically from the perspective of second language acquisition.

To address theoretical issues, on the one hand, it brings together interesting semantic and syntactic contrasts of aspectual morphemes in Vietnamese, i.e., the distributional and interpretative independence of Vietnamese tense and aspect as well as the way they interact with other syntactic phenomenon such as negation, quantification and definiteness. On the other hand, it reveals to what extent the mechanisms that Vietnamese recruits to encode aspect are different from those employed in Indo- European languages and other areally-related languages, especially including Chinese.

Based on a detailed semantic-syntactic investigation of Vietnamese aspect, the thesis sets out the properties that need to be acquired by Chinese learners. It distinguishes between those properties which are acquirable without difficulties and those that are 'problematic' in order to verify the proposed Vietnamese functional clause. It also sets out to validate some recent hypotheses in the realm of second language acquisition.

The thesis is organized as follows. Chapter 1 sets out the theoretical approach of the thesis. Chapter 2 systematically reviews a set of semantic and syntactic studies on aspect that are relevant to the discussion. Chapter 3 lays out previous research on Vietnamese tense and aspect as points of departure for my proposals. Chapters 4 and 5 are devoted to an analysis of how tense and aspect are realized in Vietnamese both pre- and post-verbally. Chapter 6 provides a brief comparison between Vietnamese and Chinese aspectual systems, focusing on the particular properties investigated in the following chapter. Chapter 7 presents a set of experiments examining Chinese learners' acquisition of Vietnamese aspect-related constructions, these shed light on current generativist hypotheses about second language acquisition. Chapter 8 concludes the thesis.

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Contents

List of Tables

List of Figures

List of Abbreviations

ADV = Adverb

ANT = Anterior

AGR_O = Object Agreement

AGR_S = Subject Agreement

AJT = Acceptability Judgement Test

AP = Adjective Phrase

ARS = Assertion

ASP = Aspect

ASP_Q = Aspect of Quantity

AT = Agent Trigger

BP = Bare Plural

BT = Benefactive Trigger

$CAUSE_e$ = Eventive Cause

CLS = Classifier

CMPL = Completive

COMP = Complementizer

COP = Copula

CP = Complementizer Phrase

DEM = Demonstrative

DET = Determiner

DP = Determiner Phrase

DUR = Durative

EP = Event Phrase

EXC = Exclaimer

EXT = Existential

fe = Event's final boundary

FOC = Focus

FUT = Future

IAspP = Inner Aspect Phrase

ie = Event's inital boundary

IMP = Imperative

INF = Infinitive

IP = Inflection Phrase

IT = Instrument Trigger

LOC = Locative

LT = Locative Trigger

MN = Mass Noun

NEG = Negation

OAspP = Outer Aspect Phrase

PART = Partitive

PASS = Passive

PERF = Perfect

PFV = Perfective

PLR = Plural

POL = Polite

POSS = Possessor

PP = Preposition Phrase

PREP = Preposition

PRES = Present

PRN = Pronoun

PROG = Progressive

PRT = Particle

PRT.Q = Question particle

Q<occ> = Quantity of Occasion

RM = Relative clause marker

RP = Result Phrase

RT = Reaction Time

SMT = Sentence Matching Test

SPEC = Specifier

TAM = Tense, Aspect, Modality

ThT = Theme Trigger

TOP = Topic

TSit = Situation Time

$TSit_f$ = Final stage of Situation Time

$TSit_i$ = Intial stage of Situation Time

TT = Topic Time

TU = Utterance Time

TVJT = Truth Value Judgement Test

VP = Verb Phrase

1s = Fisrt person singular pronoun

1p = First person plural pronoun

2s = Second person singular pronoun

2p = Second person plural pronoun

3s = Third person singular pronoun

3p = Third person plural pronoun

Chapter 1: Introduction

1.1 Aims of the thesis

The purpose of this thesis is two-fold: to develop an articulated Vietnamese clause structure in two domains — IP domain and VP domain —[1] in the spirit of generative grammar; and to examine how this functional architecture is supported empirically from the data of second language acquisition.

Addressing the theoretical issues, the thesis aims to bridge the gap between the more traditional descriptive literature on Vietnamese and current generative approaches. Vietnamese Aspect is well-documented in the traditional descriptive literature but has received relatively scant attention from generative approach. Generative grammar provides us with tools and foundations to sort out unresolved problems of Vietnamese Aspect; Vietnamese data, on the other hand, provide evidence about the realization of Aspect cross-linguistically.

Having articulated a detailed syntactic proposal about Vietnamese Aspect, the thesis investigates the formal properties that need to be acquired by Chinese learners in order to obtain native-like competence. Based on that, the findings of the experiments will contribute to our understanding of one of the most fundamental questions in the realm of second language acquisition, namely, whether second language learners' grammars (Interlanguage) are constrained by Universal Grammar (UG).

1.2 Theoretical assumptions

1.2.1 Cartographic approach

This study adopts the "Cartographic approach" to language structure, mostly closely associated with Guglielmo Cinque and Luigi Rizzi (e.g. Cinque 1999, Cinque 2002, Belletti 2004b, Cinque 2006, Cinque & Rizzi 2008, Cinque & Rizzi 2010). Under this approach, it is assumed that there is an extended array of rigidly ordered functional projections in the clause.

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[1] See Duffield (2009b, 2013b) for an analysis of the extended CP domain in Vietnamese.

This assumption not only enables us to introduce into the structure finer syntactic distinctions than are available in a classical Minimalist phrase-structure (for instance, Tense vs. Aspect, VP-external Aspect vs. VP- internal Aspect, IP-external Modality vs. IP-internal Modality, etc.), but it also offers us a useful means with which to examine cross-linguistic similarities and variation. By hypothesis, all languages share the same underlying hierarchy of functional projections, and differ only in which functional projections they morphologicalise.[2] Also note that although a language might not overtly express a certain functional category, `the functional projection was nonetheless taken to be structurally present' (Cinque 1999:141) in this language. These working assumptions will help to shed some lights on the syntactic representation of Aspect in Vietnamese, in both VP-internal and VP-external domains, and from both internal and cross-linguistic point of view.

One of the early works that established the foundations for the Cartographic approach is Pollock's (1989) paper on the existence of a 'split IP' structure in English and French. Pollock proposed that IP is not a single simple node as previously understood, but comprises at least two functional projections; T and an additional functional projection situated above V but below T. His fundamental claim stems from the difference in the placement of French thematic verbs with respect to sentential adverbs and negation in finite and non-finite contexts. Specifically, whereas finite lexical verbs in French can move over both sentential adverbs and the negative adverbs 'pas':

(1)   a. 'Jean embrasse$_i$ **souvent** t_i Marie.'

            kiss   often
         'Jean often kisses Marie.'

      b. 'Jean (n') aime$_i$ **pas** t_i Marie.'

            NEG like   not [3]
         'Jean doesn't like Marie.'   (Pollock 1989: 367)

non-finite lexical verbs behave differently: they are able to appear on either side of sentential adverbs, but cannot cross sentential negation:

(2)   a. 'Parler$_i$ **à peine** t_i l'italien   après cinq ans d'étude dénote   un

         manque de don pour les langues.'
          Speak.INF hardly DETItalian   after five years DET.study   indicate   DET
          lack PREP gift for DETlanguages
           'To hardly speak Italian after five years of hard work means you lack a gift
      forlanguages.'   (Pollock 1989: 378)

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   b. '*Ne posséder$_i$ **pas**   t$_i$ de voiture en   banlieue r   end   la vie difficile'

       NEG to-own not   a car   in suburbs   makes the life difficult
   'Not to own a car in the suburbs makes life difficult.'   (Pollock 1989: 374)

Given the assumption that adverbs basically do not move, i.e., adverbs are base generated in the same position across languages,[4] in order to provide a uniform analysis in both two types of sentences, Pollock is led to claim that French infinitive thematic verbs undergo short verb movement to an intermediate syntactic position lying between the placement of the negative adverb and VP-initial adverbs, namely Agr(eement)P.

(3)

What Pollock proposes is a more articulated phrase structure in which the traditional Infl is fragmented into three independent elements, Tense, Negation (when it is present) and Agreement, each heading their own maximal projections. Although details about the Agr functional category have been recently revised (Chomsky 1989, Iatridou 1990), Pollock's analysis remains relevant, in particular for its claim that there is at least one functional head located between V and T, as well as for the assumption that the invariant position of negation and adverbs offers a diagnostic to detect this articulated functional phrase structure.

Based on the cross-linguistic ordering constraints of adverbs, and of bound and free functional morphemes which express Tense, Aspect, and Modality, Cinque (1999) proposes an extended IP structure as follows:

(4)
[Mood$_{speech\ act}$ [Mood$_{evaluative}$ [Mood$_{evidential}$ [Mod$_{epistemic}$ [T(Past) [T(Future)
[Mood$_{irrealis}$ [Mod$_{necessity}$ [Mod$_{possibility}$ [Asp$_{habitual}$ [Asp$_{delayed}$ [Asp$_{predispositional}$
[Asp$_{repetetive\ (I)}$ [Asp$_{frequentive\ (I)}$ [Mod$_{volitional}$ [Asp$_{celerative\ (I)}$ [Asp$_{terminative}$
[Asp$_{continuative}$ [Asp$_{perfect\ (?)}$ [Asp$_{retrospective}$ [Asp$_{proximative}$ [Asp$_{durative}$ [Asp$_{generic/progressive}$
[Asp$_{prospective}$ [Asp$_{inceptive\ (I)}$ [Mod$_{obligation}$ [Mod$_{ability}$ [Asp$_{frustrative/success}$
[Mod$_{permission}$ [Asp$_{conative}$ [Asp$_{completive\ (I)}$ [Voice [Asp$_{celerative\ (II)}$ [Asp$_{inceptive\ (II)}$
[Asp$_{completive\ (II)}$ [Asp$_{repetetive\ (II)}$ [Asp$_{frequentive\ (II)}$]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]] (Cinque
1999, 106; 2001, 153).

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[4] Cf. Cinque 1999.

With the cartographic approach, my thesis thus also aims to test the validity of Cinque's (1999) proposal[5] in light of evidence from Vietnamese.

Not least, the Cartographic approach is chosen throughout the thesis because it nicely fits with the analytic nature of Vietnamese**.** Despite being an isolating language, Vietnamese possesses a comparatively large set of functional morphemes, all of which exhibit rigid ordering constraints. Consequently, functional categories which are usually fused together in more commonly-studied synthetic languages can be separated out at the surface order in Vietnamese. That is to say, on the one hand, Vietnamese provides reliable supporting evidence for the articulated structure proposed by the Cartographic approach. On the other hand, once an extended cartographic structure is assumed, some interesting semantic and syntactic contrasts of aspectual morphemes in Vietnamese (i.e., the distributional and interpretative independence of Vietnamese tense and aspect as well as the way they interact with other syntactic phenomenon such as negation, quantification and definiteness) are brought into the spotlight, and a number of unexplained properties fall into place. Furthermore, the approach enables us to see to what extent the mechanisms that Vietnamese employs to encode aspect are different from those recruited in Indo-European languages, as well as in other areally-related languages such as Chinese.

To conclude, using the cartographic approach, the thesis aims to address three fundamental questions:

> (i) What sort of Aspect-related projections are there in Vietnamese IP and VP domains?

> (ii) What hierarchical orders are these Apect-related projections arranged?

> (iii) Are the functional sequences of the IP and VP structures that have been revealed to exist cross-linguistically also lexicalized in Vietnamese?

1.2.2 Multifunctionality

Another theoretical assumption that will be helpful for us when working with Vietnamese data is the notion of multifunctionality (Lefebvre and Massam 1988, Travis et al. 1998, Duffield 2007, Duffield 2009a). In Duffield's formulation, the essential idea is that certain functional categories may be lexically (radically) underspecified, deriving their interpretation not from the lexicon but from the syntactic position to which they are projected.

In Vietnamese, it is often the case that the same morphological form can be used in different contexts to express different meanings. For instance, one of the morphemes that will be central to our study is 'được' (can, obtain, get), whose interpretation varies depending on where it appears in the clause: pre-verbal *được* corresponds to the deontic modal CAN, sentence-final *được* is interpreted as an abilitative modal, while positioning *được* immediately postverbally yields a purely aspectual (achievement) reading:

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[5] Please note that in Cinque's functional sequence, there are several types of Aspect which can be base generated in more than one functional position (Asp$_{repetitive}$, Asp$_{frequentative}$, Asp$_{celerative}$, Asp$_{inceptive}$, Asp$_{completive}$ for instance). I will return to this shortly.

(5) a. 'Cô ấy **được** kiếm việc.'   Deontic modal
        3S DEM[6] obtain seek job
        'She is allowed to seek a job.'

     b. 'Cô ấy kiếm việc **được**.'   Abilitative modal
        3S DEM seek job obtain
        'She is able to seek a job.'

     c. 'Cô ấy kiếm **được** việc.'   Achievement
        3S DEM seek obtain job
        'She found a job.'

                        (Examples from Duffield 1999, in prep.)

Traditionally, these elements have been treated as lexically polysemous. In a multifunctional approach, this polysemy is taken to be derived from syntactic configurations rather than arbitrary lexical features.

A multifunctional functional category (MFC) is interpreted as:

> '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 . . . [different senses [of a multifunctional item] follow from the different head positions in which it occurs.' (Travis et al. 1998: 2–3)
> (cited from Duffield 2007:767)

From this perspective, the same morpheme can be interpreted differently depending on where it is initially merged in the structure.[7]

This perspective has been well illustrated by other languages. For instance, in Chinese, the word 'sheme' can be construed as interrogative word, existential quantifier and universal quantifier in different environments (see Cheng 1991, Aoun & Li 1993):[8]

(6) a. 'Hufei chi-le **sheme** (ne)'   interrogative word
           eat-ASP what PRT.Q
        'What did Hufei eat?'

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[6] 'DEM' is often part of a third singular pronoun. This follows a general pattern of Vietnamese DP in which 'DEM' always stays at the leftmost position of the DP. This is an interesting point, for demonstratives are normally expected to occur to the left of the lexical noun in a strictly head initial language like Vietnamese. To offer an explanation for this abnormality is beyond the scope of this thesis. Readers are referred to Duffield (in prep.), Nguyen, Tuong (2004) for a raising analysis of the final demonstratives, and also Sybesma & Sio (2008) for a similar observation in the Zhuang language.

[7] This idea is recently further developed in Borer (2005)'s 'exo-skeletel''s approach. Based on a class of 'variable-behaviour' verbs, Borer proposes that, contra conventional belief, the lexical root plays no role in determining the formal properties (most notably, argument structure and category type) of an element. It is the syntactic environment that the lexical item occurs that comes into play. Here I adopt a weaker viewpoint in which the inherent lexical root and the syntactic environment can be both at work, i.e., my data are in favour of the position that the semantic interpretation can be shaped by the syntactic structure; but at the same time not totally excluding the role of the lexicon (see also Van Hout 2004, Tungseth 2006, Ramchand 2008, Nossalik 2009 for a similar viewpoint).

[8] See also Gill & Tsoulas (2009) for further evidence of 'indeterminate pronoun' in Korean and Japanese.

    b. 'Qiaofong   mai-le   **sheme** ma'   existential quantifier
                    buy-ASP what PRT.Q
      'Did Qiaofong buy anything?'

    c. 'Botong **sheme** dou chi'   universal quantifier
                what   all eat
      'As for Botong, he eats everything.'   (Cheng 1991:113-116)

Also in Talagog and in Malagasy, Travis (2010) argues that there is only one causative morpheme in these languages, and its realization varies either as the lexical causative or the syntactic causative depending on where it is generated in the phrase structure. If it is below EventP, it belongs to L-syntax and is the lexical causative (LC). If it is above EventP, then it must be joined to the verb via S-syntax and is the productive causative (PC):

(7)   V - E - V -
    Malagasy: an_{PC} - f - an_{LC} -
    Tagalog: pag_{PC} - pa - pag_{LC} - (Travis 2010:189)

A similar treatment can be applied to Vietnamese: for instance, to the anterior morpheme 'đã', the negative 'không', the assertive 'có', the telic 'xong', etc., which will be discussed in greater length in the following chapters. However, the remarkable property of Vietnamese (discussed in Duffield 2007, 2013a) is that changes in interpretation are not only a question of which other licensing elements are present (e.g. force, scope marker, negation, etc.), but also directly co-vary with changes in position. For instance, in the example of Chinese in (6c), in order to receive a universal quantifier reading, 'shenma' must be outside of the scope of 'dou' (all). [9] In addition to those cases of 'relative multifunctionality', Vietnamese also has examples of 'rigid multifunctionality' (in the sense of Duffield 2013a), in which the semantics of a lexical item is fully determined by its base generated position. [10] For example, 'là' can either appear in the copula position or in the complementizer position or a topic marker:

(8) a. Mẹ   tôi   là   giáo viên.
        Mother 1S COP teacher
        'My mother is a teacher.'

    b. Bác sĩ nói với tôi là   anh ấy sẽ   ổn thôi.
        Doctor say PREP 1S COMP   3S DEM   FUT fine PRT
        'The doctor said to me that he will be fine.'

    c. Nó   làm thế là   tốt.
        3S   do   that TOP good
        'It is good that he did that.'

---

[9] A similar effect is also observed in the case of 'indeterminate pronoun' in Korean and Japanese (see Gill, Harlow & Tsoulas 2004).

[10] See Scott (2002) for a similar classification of those adjectives which can appear in different positions in the functional hierarchy.

As can be seen from these examples, the core meaning of 'là' is null, so its meaning entirely depends on its clausal position[11].

The next question is that what this multifunctionality means under the cartographic approach. Dealing with variable adverb positioning, Cinque (1999, 2006) clearly excludes a homonymy approach and claims that one and the same adverb can be base-generated in different positions of the functional sequence. For instance, 'cleverly' (or 'stupidly', 'foolishly') can be interpreted differently depending on the positions it is merged in the functional sequence:

(9)   a. 'John has cleverly answered their questions.'

       b. 'John has answered their questions cleverly.'
                                 (Cinque's examples 1999:83)

In (9a), 'cleverly' is merged in the specifier of the deontic Modality head, therefore it obtains a subject-oriented interpretation; whereas in (9b), it is base generated in a lower syntactic position, i.e., in the specifier of the Voice head, it has a manner reading. Interestingly, the two can simultaneously occur in the same sentence:

(10)   'John has cleverly answered the questions cleverly/foolishly.'
                                 (Dékány's example 2011:15)

Similarly, adverbs like 'frequently', 'often', 'rarely' can occur in two distinct points of the functional sequence: one above and one below 'suddenly':

(11)   a. 'She frequently was suddenly (being) rejected by publishers.'

       b. 'She suddenly was (being) frequently rejected by publishers.'

       c. 'She rarely/often/frequently was suddenly (being) frequently rejected by the
       publishers.'
                                 (Cinque's examples 2006:125)

Cinque also suggests that these adverbs have a core meaning, and they are 'underspecified with respect to the two positions, hence compatible with both' (Cinque 2006:125), which is very much in the same spirit with the notion of multifunctionality defined above. To conclude, in the cartographic approach, the multifunctionality stems from merger in

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[11] It may be that the set of fully (rigid) multifunctional elements ('là' for example) is smaller in quantity than the set of partially (relative) multifunctional elements: if we only consider one case, namely, 'là', the multifunctional approach might seem to have little advantage over the homophony approach. But if we place 'là' in a larger context, I think the multifunctional approach is preferred over the homophony approach. 'Là' and other rigid multifunctional elements still share the same crucial characteristic as other partial multifunctional elements, namely, different positions correspond to different interpretations. Together, these elements highlight an important role played by word order in isolating analytic languages like Vietnamese: word order not only reflects grammatical functions, but also does some semantic work (i.e., we can know what these elements means by looking at their position in the clause). That is to say, the multifunctional approach not only allows us to capture the commonality of these elements in Vietnamese in an insightful and consistent way but also succeeds in representing the typical typological characteristic of Vietnamese.

different position of the functional sequence. Crucially, adopting Duffield's insights (2013a), this multifunctionality suggests a different conception of Minimalism in opposition to the standard mainstream Minimalism: 'Minimalist Lexicalism' or 'Rich syntax - Poor Lexicon' Minimalism; and its consequence is Semantic Syntax: 'meaning inheres in, and is read off of, syntactic representations' Duffield's 2013a:3) (see also Marantz 2005, Borer 2005). With those interesting typological characteristics, Vietnamese not only fits very well into a hierarchically ordered universal template set out by recent cartographic proposals, it also facilitates a new understanding of the theory of UG.

1.3 Outline of the thesis

The remainder of the thesis is organized as follows:

Chapter 2 systematically reviews semantic and syntactic treatments of Aspect (including both Viewpoint Aspect and Situation Aspect), which are of importance to the discussion. I adopt Klein's (1994) time-relational theory of Viewpoint Aspect, in which Viewpoint Aspect is brought on a par with Tense; and further show how the semantics of Tense and Viewpoint Aspect are represented syntactically (Demirdache & Uribe-Etxebarria 2007). Also, I adopt a compositional approach to Situation Aspect and demonstrate how this compositionality is reflected in syntax (Travis 2010).

Chapter 3 starts the discussion on Vietnamese by laying out previous research on Vietnamese Tense and Aspect. This chapter aims to point out exactly what properties need to be taken into consideration in any appropriate analyses of Vietnamese Aspect, which will serve as points of departure for my proposals in the following chapters.

Chapters 4 and 5 are devoted to our analysis of how tense and aspect are realized in Vietnamese both pre- and post-verbally. The purpose of the two chapters are to see to what extent the existing theories of Aspect can be applied to Vietnamese,[12] and to show how the data from an under-studied language like Vietnamese can contribute to theory of Aspect in general; and most importantly, to reveal the cartography of Vietnamese clause structure.

Chapter 6 provides a brief comparison between Vietnamese and Chinese aspectual systems in order to put forward what aspect-related properties are worth investigating in experiments.

Chapter 7 examines Chinese learner's acquisition of Vietnamese Aspect-related constructions in order to validate the availability of UG in second language acquisition.

Chapter 8 summarises and ends the thesis.

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[12] This distinguishes my study from traditional grammars where analyses of tense/aspect found in the literature of more commonly studied languages are adopted without considering the applicability of these analyses to Vietnamese (see chapter 3 for detailed discussion).

Chapter 2: Theoretical background

2.1 Introduction

The thesis offers an integrated syntactic-semantic account of Vietnamese temporal and aspectual system within the framework of generative linguistics. In this chapter, I summarise some previous linguistic proposals concerning the syntax and semantics of tense and aspect, considered separately.

What should be pointed out before proceeding to the literature overview is, however, the matter of terminology. In the extensive research of aspect, despite many disagreements, a fairly standard assumption has been that there exist (at least) two kinds of aspect. Semantically, these are known as Viewpoint Aspect (or grammatical aspect) and Situation Aspect (or lexical aspect, Aktionsart): the former essentially gives temporal perspective to the situation, such as whether the situation is viewed in its entirety or in its partial stages (see Vendler 1957, Comrie 1976, Tenny 1987, Verkuyl 1989, Smith 1997 amongst others), while the latter is basically concerned with inherent temporal properties of the event[1] or situation denoted by the predicate. In this thesis, I proceed from the assumption that both kinds of Aspect are represented syntactically: Viewpoint Aspect is represented inside the inflectional zone of the clause (i.e., VP-externally) while Aktionsart is taken to be represented within the lexical domain of the clause (i.e., VP-internal). Following Travis (2010), Viewpoint Aspect will be referred to as Outer Aspect, while Situation Aspect will be referred to as Inner Aspect.

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[1] In this thesis, I use 'event' in a broad sense of this word, which is equivalent to 'eventuality' (Bach 1981) and 'situation' (Smith 1997) in other terminologies, i.e., it refers to all sorts of situations including states, activities, accomplishments and achievements. Please note that in some other terminology systems the term 'event' only includes telic situations (accomplishments and achievements) (for instance, Comrie 1976, De Swart 1998).

2.1 The semantics and syntax of Tense and Outer Aspect

2.1.1 The semantics of Tense and Outer Aspect

A significant initial distinction should be drawn between Tense and Outer Aspect.

a. Reichenbach (1947)

The simplest and most intuitive interpretation of tense is to place the situation time at one of three points on a time axis: before, simultaneous with, or after the point of speech. In his widely-known work "Elements of Symbolic Logic" (Reichenbach 1947), however, Reichenbach points out that tenses in fact involve 'a rather more complex structure' (Reichenbach 1947/2004: 526), and proposes an analysis in terms of a three-place structure of tenses (S: the point of speech, E: the point of event, R: the point of reference) with two main temporal relations between these entities: simultaneity and precedence.

To illustrate, it does not suffice to represent the following sentence if merely based on a direct relation between S and E:

(1)   'Peter had gone.'   (Reichenbach's example 1947/2004: 526)

Not only does the sentence fix the point of event (i.e. the time that Peter went) to the point of speech, but it also fixes to the point of reference, which is situated between the point of speech and the point of event, the position of which is dependent on the context of the speech. Nor is it possible to capture the minimal contrast between (2a) and (2b) by relying solely on E and S:

(2)   a.   ' I saw John'

       b.   'I have seen John'   (Reichenbach's examples 1947/2004: 527)

Comparing the two sentences, Reichenbach notices that the event in both (2a) and (2b) takes place prior to the point of speech, but in (2a) it is located with respect to a reference point 'situated in the past', while in (2b) it is '**seen** (…) **from** (…) a point of reference which coincides with the point of speech' (Reichenbach 1947/2004:527, emphasis mine). They may respectively be diagrammed as in (3a) and (3b):

(3)   a.   Simple past: E,R_S[2]   (, means 'simultaneity' _ means 'precedence')

       b.   Present perfect: E_R,S

---

[2]The diagrams can be read as follows: In the simple past in (3a), the point of the event is simultaneous with the point of reference, and they both precede the point of speech. In the present perfect in (3b), the point of event is also prior to the point of speech, but the reference time is simultaneous with the point of speech.

Note that although Reichenbach himself labels his account as the tenses of verbs, from his words **'seen from'**, he seems to have in mind a kind of aspectual interpretation in the sense of different ways of seeing/viewing events.

The introduction of the R point is perhaps the most distinctive and insightful feature of Reichenbach theory, as argued by Horstein (1990) and others. Reference time is truly grammatically significant: in principle, it forms part of every tense representation. Reichenbach, however, does not define what he exactly means by R, and does not express clearly either about the temporal nature of R-time (point vs. interval) or as to which time point is used as the reference time. In other words, he still leaves open the defining criterion of the notion of reference time. Moreover, as convincingly pointed out by Giorgi & Pianesi (1997), the relationship between S, R, E is not ternary but actually consists of two independent binary relations, acknowledged by Reichenbach himself, as follows:

> **Relation 1**: 'The position of R relative to S is indicated by the words 'past', 'present' and 'future'.

> **Relation 2**: The position of E relative to R is indicated by the words 'anterior', 'simple' and 'posterior', the word 'simple' being used for the coincidence of R and E'
> (Reichenbach 1947/2004:531).

To be precise, only Relation 1 represents a temporal relation. Relation 2 indicating the contrast between simple form and the so-called expanded form in English is actually understood to be an aspectual opposition. Therefore strictly speaking, Reichenbach does not clearly distinguish tense from aspect. However, it is important to note that his new terminologies, i.e., 'anterior past', 'anterior present', 'anterior future', etc. (instead of past perfect, present perfect, future perfect, etc. in traditional names) clearly imply that aspect can be also interpreted in terms of temporal notion (before, after, simultaneous with).

b. Comrie (1976, 1985)

In an effort to more clearly distinguish between tense and aspect, Comrie (1976) focuses on the ways they are concerned with time. For Comrie, tenses represent the relationship between the time of the situation to some other time, in most cases referring to the actual moment of speaking. In his account, the absolute tenses are analysed in terms of only two temporal parameters: the moment of speech (abbreviated as S), and the situation time (abbreviated as E), with the exclusion of reference time R:

Present   E simul S
Past   E before S
Future   E after S

Aspects, on the other hand, do not locate the situation with respect to any other time indications, but instead look at the 'internal temporal constituency' of the situation (Comrie 1976:5). These can be morphologicalized differently cross-linguistically, for instance; through inflectional/derivational morphemes, auxiliaries, or periphrastic constructions.

Since tenses anchor situations either at the same time, prior to, or subsequent to the present moment, tense is generally viewed as a deictic category. By contrast, aspect is considered

non-deictic, in as much as the treatment of the internal temporal structure of a situation is independent of any relationship to the time lines. In brief, for Comrie tense and aspect differ in so far as the former is 'situation-external time', whereas the latter is 'situation-internal time' (Comrie 1976:5).

Comrie also proposes the hierarchical taxonomy of aspectual categories as follows:

(4)

Perfectiv   Imperfective

Habitual   Continuou

Nonprogressive   Progressive
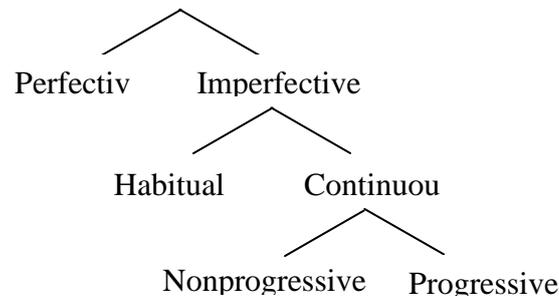
Classification of aspectual oppositions (adapted from Comrie 1976:25)

The first distinction between perfective and imperfective is outlined in his system as follows: perfective represents the 'lack of explicit reference to the internal temporal constituency of a situation' (Comrie 1976:21), in other words, the perfective views the situation as a complete[3] entity, where alternatively, the imperfective explicitly deconstructs the situation into its internal components. Imperfectivity, in its turn, can be sub-grouped into different categories: habitual and continuous (or also known as durative). Habitual ('used to' constructions in English, for instance, *He used to take out the garbage every Tuesday morning*) indicates a situation 'which is characteristic of an extended period of time' (Comrie 1976:27), not as a temporary property of the moment as in the continuous aspect.[4] According to Verkuyl (1999), the semantic difference between the progressive and the habitual further lies in how many occasions on which the event takes place are referred to by them. While the progressive refers to one occasion during which the situation holds, the habitual designates more than one occasion on which the situation applies. That is to say, Aspect is not only concerned with the internal structure of the event but also with the number of occasions on which the event takes place. Verkuyl's additional point to Comrie's aspectual system will be further discussed in the following sections.[5]

In spite of the simple and clearly presented distinction between tense and aspect, the exclusion of the notion of reference point in Comrie's theory has been subject to much subsequent criticism. For example, Klein (1994) argues against the deictic approach and

---

[3] As Comrie (1976:18) noted, the word in his definition is 'complete', not 'completed' as the use of 'completed' only highlights the completion or the end of the situation, whereas referring to the termination is only one of the possible interpretations of the perfective form (even though it is the key semantic element to differentiate perfective from imperfective). The defining feature of perfective is that it gathers all parts of the situation (the beginning, the middle, and the end) as a single whole. Keeping this understanding in mind, in the following chapters, it will be argued that the Vietnamese anterior morpheme 'đã' is not a perfective marker. In contrast, 'đã' is argued to have an imperfective meaning component.

[4] Please note that for habitual aspect, each occurrence of the event can be conceived as a whole complete event, but it is the habit that is not considered as temporally delimited.

[5] Please note that there is no place for Perfect in Comrie's classification of Aspect, the reason will become clear shortly.

offers cases that indicate this theory of tense and aspect cannot be adequate. Consider for instance:

(5)   '(They found John in the bathtub). He was dead.' (Klein 1994:22)

The situation in question is John's status of being dead. Because John is still dead at the time of the utterance, a speaker stating *he was dead* does not intend to convey that the time of his being dead was BEFORE the time of the uttered sentence. In fact, the speaker wants to 'make an ASSERTION' about some time in the past (here, the time at which John was found in the bathtub) and it is precisely this time that precedes the time of utterance.

From examples of this type, Klein draws the conclusion that 'Tense does not express a temporal relation between the time of situation and the time of utterance; rather, it expresses a relation between the time of utterance and some time for which the speaker wants to make an assertion', in Klein's terminology, the TOPIC TIME (Klein 1994:24). For Klein too, Aspect is not really a non-deictic category as assumed in the canonical view since what we interpret as the completedness of a situation in a given context actually depends on the particular way in which the situation is linked to a reference time point. This means that the primary factor distinguishing tense and aspect is not the presence or absence of the time relational or of deixis property, but rather tense and aspect crucially differs in which particular time parameters located by them.

c. Klein (1994)

Having thus criticised the traditional analysis, Klein (1994) proposes an alternative time-relational analysis, which puts aspect in parallel to tense. In particular, 'both tense and aspect are defined in terms of temporal relations such as *before, after, simultaneous* they only differ in what is related to what' (Klein 1994:3). There are three distinguished times: the time at which the utterance is made (TU), the time period at which a situation holds true (T-SIT or time of situation) and 'the time to which an assertion is confined' (TT or topic time, or assertion time) (Klein 1995:687). Tense for Klein applies to the relation between TT and TU, while Aspect, on the other hand, concerns the relation between TT and T-SIT. The following diagram shows an example of the representation of major tense and aspect categories in this framework:

(6)   TENSE: Present tense: TU INCL   TT
                 Past tense: TU AFTER   TT
                 Future tense: TU BEFORE   TT
        ASPECT: Imperfective: TT INCL   TSit
                 Perfective: TT AT   TSit
                 Perfect: TT AFTER   TSit
                 Prospective: TT BEFORE   TSit

Klein preserves the three-parameter insight of Reichenbach, but further clarifies reference time as topic time, or assertion time. Also, Klein's formal representation of Aspect nicely captures the intuition that the function of viewpoint aspect is to pick up a time interval within the situation time, as stated by Smith (1997):

'Aspectual viewpoints function like the lens of a camera, making objects visible to the receiver [...] Only what is visible is asserted[...]'   Smith (1997:61,62)

Let's consider one of Klein's examples:

(7) a. 'She was taking a purse from his pocket.'

    b. 'She took a purse from his pocket. ' (Klein 1994: 40,46)

The situation at issue here is the taking of a purse from his pocket (by her). TSit is the time during which she was taking a purse from his pocket, and TT is the time span to which the speaker's claim is narrowed down. Both TSit and TT differ from TU, which is the time at which the speaker produces the sentence. (7a) and (7b) can be diagrammed on the timeline as follows, where ++++ represents the situation time, [ ] represents the topic time, ⏐ represents the utterance time, and ⟶ represents the time axis:

(8) a. She was taking a purse from his pocket

++++++[+++++++++]++++++++++   ⏐

⟶

TT within TSit,   TT   <   TU

    b. She took a purse from his pocket

[+++++++++]   ⏐

⟶

TT include TSit,   TT   <   TU
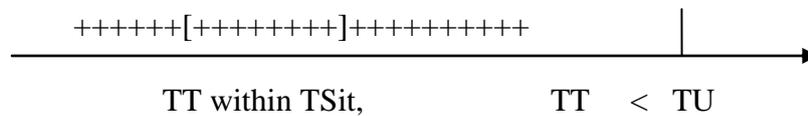
In both (8a) and (8b) the TT is placed prior to TU (TT BEFORE TU), and therefore past tense is obtained. However, this is aspect, i.e., the relation between the TT and TSit that differentiates the two sentences. In (8a), the progressive aspect localizes the TT within the TSit (TT INCL TSit), i.e. all the speaker intends to say is that there was some time span within which she was performing the action of taking a purse from his pocket, whether this action completed is left open. By contrast, in (8b), the target state was reached within the TT (TT AT TSit), her action was clearly completed, hence the perfective aspect. As should be clear, this analysis treats aspect in terms of the same kinds of temporal relations as it does tense, thus eliminating the temporal vagueness of more traditional interpretations of aspect.

Having transformed the traditional intuition into a more formal compositional treatment, Klein's theory offers a clear-cut distinction between perfect and perfective, which is relevant to our discussion. In Comrie's approach, although they are both types of aspect, they are defined in different criteria: the perfective is concerned with a particular way of 'representing the internal temporal constitution of a situation', yet the perfect 'tells us nothing directly about the situation itself, but rather relates some state to a preceding situation' (Comrie 1976:52), which makes the perfect closer in meaning to tense than to aspect in his account. Therefore, Comrie's two-parameter theory of Tense and his deictic approach to Aspect cannot provide a clear-cut definition for perfect. Based on the assumption that aspect in essence is relational, Klein treats perfect and perfective equivalently: while perfective locates TT at TSit, perfect anchors TT after TSit, as shown in (6). This formalization captures the intuition that the basic requirement of the perfective

is that the situation as a single whole must be complete before the reference time, whereas the perfect only requires that the situation takes place prior to the reference time.[6]

So far, we have seen a great deal of theoretical motivation for the time-relational analysis of tense and aspect. We will show how this analysis accounts for language-specific features in Vietnamese in the following chapters.

2.1.2 The syntax of Tense and Outer Aspect

Keeping Klein's semantic analysis of tense and aspect in mind, the next question focuses on how to represent these notions syntactically. Many researchers (Arche 2006, Demirdache & Uribe-Etxebarria 2007, for instance) have attempted to translate into syntax the semantic correlation between Tense and Outer Aspect. Since these researchers have developed their proposals based on Stowell's (1993, 2007) work, it is useful to review Stowell in the first place.

a. Stowell (2007)

Following Zagona (1990), Stowell (1993, 2007) proposes that tense is constructed of syntactically related semantic components. In this view, tenses are dyadic predicates with two time-denoting arguments. Its external argument is the utterance time (UT) and is taken to be covert and occupies the [Spec, TP] position. Its internal argument indicates the time of the event (ET)[7] and is represented structurally as the complement of T. This is schematically shown as in (9):

(9)
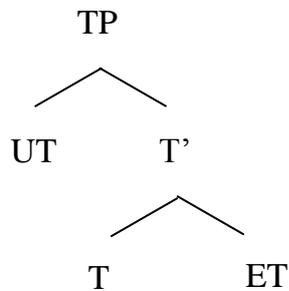
```
                    TP
                   /  \
                 UT    T'
                      /  \
                     T    ET
```
                                          (Stowell 2007:439)

A few things need to be clarified at this point.The first question that may arise concerns the specific syntactic category of the arguments of T - UT and ET, as they are not comparable to the common category names applied to TP, DP, etc. Stowell claims that the two arguments of Tense have a categorical status different from both DP and VP. The label he chose is 'ZP' (Z standing for Zeit 'time' in German), which shares the same internal structure as other referential categories. Z heads ZP and can select either a V or an aspectual projection AspP as its complement. The structure in (10) shows a covert UT as null ZP_1 (correspondent to PRO), and an overt ET being ZP_2:

---

[6] See chapter 3 for relevant discussion in Vietnamese.
[7] Stowell clearly states that his 'usage of the term ET corresponds more closely to Klein's (1994) notion of Topic Time (TT)' (Stowell 2007:442).

(10)

```
                    TP
                  /    \
              ZP₁       T'
               |       /   \
             PRO     T      ZP₂
                    PAST   /   \
                         Z      VP
                               /△\
                              ...V ...
```
$$\text{(10)}$$

(Stowell 2007:441)
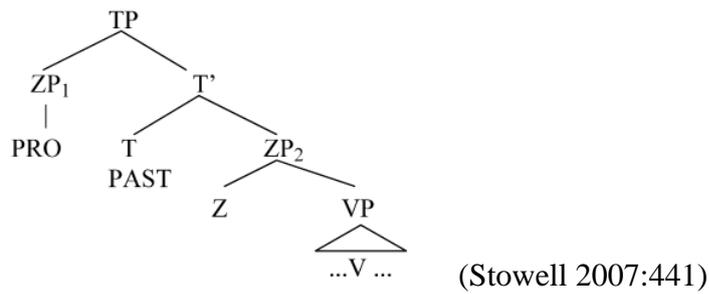
Second, it can be seen from (10) that Stowell's analysis puts a temporal projection ZP_2 lower in the structure than Tense, hence providing a version of Event Phrase in Travis's (2010) sense, which will be discussed at length later on.[8]

Third, looking at the tree in (10), one might ask where the traditional DP subject is located since the PRO-ZP_1 occurs in exactly that position which is widely assumed to accommodate the DP subject, namely in the Specifier position of TP. With respect to this, Stowell simply assumes that the DP subject raises from VP to a higher position skipping the whole TP, without giving any further explanation on what this higher position really is.[9]

It can be seen that in his proposal, the main interest is only in the structure of Tense; nothing much is said about how to tease apart Outer Aspect from Tense, nor about how to syntactically represent Outer Aspect on a par with Tense.

b. Demirdache & Uribe-Etxebarria (2007)

Demirdache & Uribe-Etxebarria (D&U-E) extend Stowell's proposal of Tense to Aspect, and therefore supply a uniform structure for Tense and Outer Aspect, as in (11):

(11)

```
              TP
            /    \
        UT-T      T'
                /    \
              Tᴼ      ASP-P
                     /     \
                 AST-       ASP'
                   T       /    \
                        ASPᴼ     VP
                                /    \
                             EV-T     VP
```

(D&U-E 2007:4)

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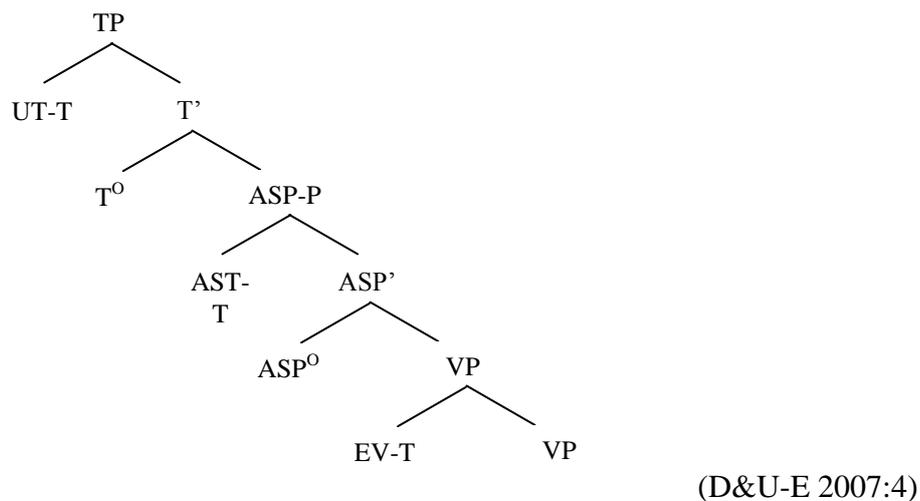
[8] I thank Nigel Duffield for this observation. See also Rosen (1999) for other proposals that place Event itself as an independent entity in the syntax.

[9] All I got to say at this point is that Stowell's assumption is actually supported from Vietnamese point of view, for the Vietnamese DP subject is able to move across TP to [Spec, TopicP]. Interested readers are referred to Cao (1992), Duffield (2009b), Trinh (2009) for further discussion.

Taking Klein's (1994) insights as the starting point, D&U-E propose that the functional heads ASP^0 and T^0 are both dyadic predicates that take two temporal arguments. Tense anchors the time of utterance- its external argument, with respect to the Assertion time, its internal argument. On the other hand, the Assertion time is the external argument of Asp^o. Aspect orders this assertion time with respect to the time of the event (EV-T), as expressed by VP. Essentially then, Outer Aspect is syntactically located in a lower position than Tense.

Accordingly, both Tense and Aspect are spatio-temporal ordering predicates with the meaning of AFTER, BEFORE or WITHIN.

(12)

	AFTER *(Subsequence)*	WITHIN *(Inclusion)*	BEFORE *(Precedence)*
Tense	Past	Present	Future
Aspect	Retrospective/Perfect	Progressive	Prospective

(D&U-E 2008:1795)

Let's consider the following pairs of sentences in (13):

(13) a. 'Terri had eaten lunch.'

   b. 'Terri has eaten lunch.'   (Examples of D&U-E 2007: 341)

The time of the situation (Terri eat lunch) in (13a) is rendered as completed before the AST-T position. The AST-T is then subsequently ordered after the UT-T and thus provides the past perfect reading. The present perfect (13b) shares the same structure but with a WITHIN T^0:

(14)
Past Perfect   *Present Perfect*
a. 'Terri had eaten lunch.'   b. 'Terri has eaten lunch.'
a'.   b'.
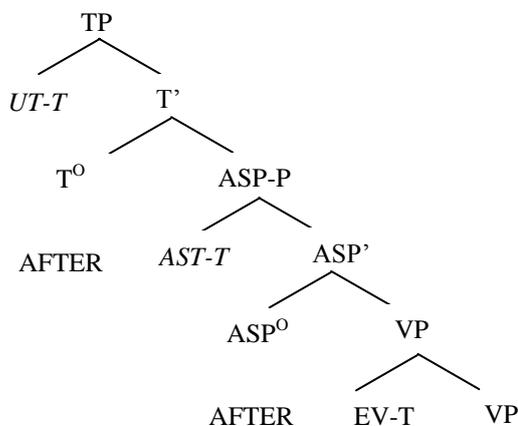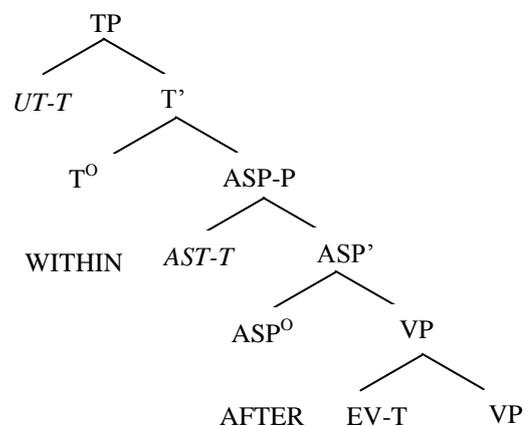
An interesting property of D&U-E's account focuses on the distinction between perfect aspect and perfective aspect. Perfect aspect presents the event as completed (or at least some parts of the event taking place) prior to the assertion time, i.e., where the AST-T is

placed after the EV-T; whereas the perfective aspect depicts the event as a whole including both its beginning and end, i.e., where the AST-T and the EV-T are cotemporal. Vietnamese data will show that it is important to make this distinction.

D&U-E (2007) further endorse an extended VP shell structure which is able to capture a more specific event structure. The complex event-structure in (15) is assigned to the VP, where each sub-event has its own running time.

(15) $[_{VP1}$ EV-T1 $[_{VP1}$ V$^O[_{VP2}$ EV-T2 VP2]]]
         (VP1 = Process/Activity; VP2 = Result State)   (D& U-E 2007:11)

Since VP is decomposed into VP_1 and VP_2, the EV-T is also articulated into EV-T1 and EV-T2. This complex event-structure allows D&U-E to consistently examine different derived interpretations of the present perfect. For the perfect essentially means AFTER, it focuses on any time after EV-T1 in (15). If the situation of this time is *'after the final bound of EV-T2'* (D&U-E 2007: 341), an existential reading present perfect is formulated (the perfect expresses the existence of some past event preceding UT-T). On the other hand, if the perfect focuses on the stretch of time '*immediately after the final bound of EV-T1 – that is, EV T2'* (D&U-E 2007: 341) – then a universal/continuative interpretation of the present perfect is constructed (the perfect signals some past event that continues up until UT-T). For instance:
(16)   Amina has lived in Ottawa since 1996.   (D&E-U 2008:1804)

The existential reading of (16) is that there was at least one point in the period running from 1996 and finishes at UT-T in which Amina lived in Ottawa. Under the universal/continuative construal, Amina's residency in Ottawa stretches from the beginning to the end of a period beginning in 1996, and containing a UT-T.

What can be drawn from the above discussion is that the event time (or situation time) is actually not a single whole as traditionally defined, but might involve more than one temporal interval, since the event itself is complicated in its internal temporal structure. Consequently, Aspect does not need to make visible all parts of the situation, but only some parts of it.[10] This will be more clearly illustrated when we start our discussion on Vietnamese Outer Aspect.

c. Arche (2006)

Another interesting proposal which will also help to shed some light on the intricate behavior of Vietnamese Tense and Aspect is Arche (2006). Along the line with Stowell (1993, 2007) and Demirdache & Uribe-Etxebarria (2007), Arche assumes that Outer Aspect, like Tense, is an ordering predicate which orders the TT with respect to TSit. However, what makes her study stand out is that she translates into the syntax Verkuyl's insight that Outer Aspect is not only concerned with locating the situation with regard to the assertion time, but also with the number of occurrences of the situation. That is to say, on the one hand, Aspect is an ordering predicate (AFTER, BEFORE, WITHIN), and on the other hand, Aspect is also a 'quantifier over Occasions'.

Arche represents different kinds of Aspect in the structure as follows:

---

[10] Cf. Musan's (2001) modification of Klein's theory .

(17)

a. Progressive

```
        AspP
       /    \
      TT    Asp'
           /    \
         Asp   Q<occ>
                /    \
          (within)    \
                   1    walk
```

b. Perfective

```
        AspP
       /    \
      TT    Asp'
           /    \
         Asp   Q<occ>
                /    \
          (after)     \
                   1    walk
```

c. Imperfect habitual

```
        AspP
       /    \
      TT    Asp'
           /    \
         Asp   Q<occ>
                /    \
          (within)    \
                  >1    walk
```

d. Imperfect continuous

```
        AspP
       /    \
      TT    Asp'
           /    \
         Asp   Q<occ>
                /    \
          (within)    \
                   ∃    be blond
```
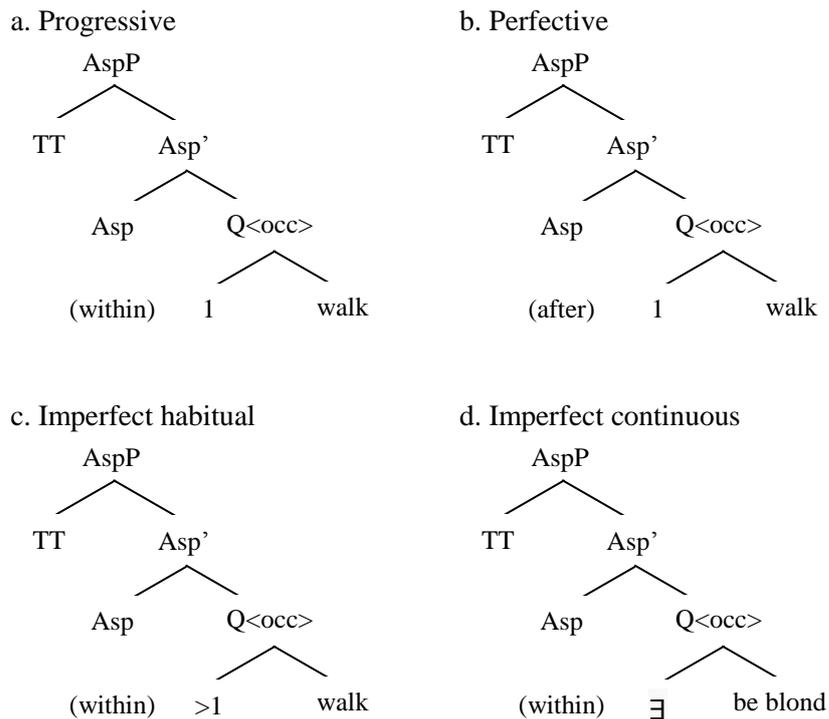
(Arche 2006: 159-160)

What is relevant to our discussion is that there is one more functional head that is projected in the structure: the Q<occ>P (Quantity of Occasions Phrase). Again, this is positionally and interpretationally equivalent to the Event Phrase of Travis (2010).[11]

To sum up, what can be drawn from the above discussion on the syntax of Tense and Outer Aspect is the crucial insight that both temporal and aspectual domains can be identified by the same ordering predicates (AFTER, BEFORE, WITHIN), and thus achieve a unified syntactic structure of TP and OuterAspP.[12] Bearing that in mind, we can make sense of the fact that in Vietnamese, the TAM markers 'đã' (anterior), 'đang' (durative) can easily move from the aspectual domain to the temporal domain while their interpretations vary consequentially.

Having sketched a brief outline of ways of representing Outer Aspect, I turn now to the other kind of Aspectual relation, namely, what is traditionally termed Lexical Aspect.

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[11] See chapter 4 for how the projection of Q<occ>P or EP sheds some light on the puzzle of Vietnamese pre-verbal aspectual markers.

[12] The idea that there is a parallel between different syntactic domains can be further elaborated from the work of Guéron (2008) (between spatial vP and temporal IP), Ramchand (2008) (between vP, OuterAspectP, and TP), or of Borer (2005) (between NP and VP), etc.

2.2 The semantics and syntax of Inner Aspect

2.2.1 The semantics of Inner Aspect

2.2.1.1 Predicate type classification

We have seen that Outer Aspect or Viewpoint Aspect provides a certain amount of information necessary for the interpretation of the temporal boundaries of the event, but it is also widely accepted that another type of aspect - Inner Aspect (or lexical aspect, situation aspect, Aktionsart in other terminology systems) - also plays a role in the temporal interpretation of the utterance. Outer Aspect indicates "***actual*** boundaries" of the event's temporal structures; Inner Aspect, on the other hand, encodes "***potential*** boundaries" (Smith 1997, Slabakova 1999, Nossalik 2009, amongst others), which are in many languages encoded in the verb form or inside the verb phrases.

The departure point for our illustration is Vendler's well-known classification of verb types, which has had an enormous influence on the linguistic research in the domain of aspect (Vendler 1957). His original idea was to create 'time schemata' of wide application to characterize different classes of verbs. The verbs of English are divided into four classes depending on such properties as temporal duration, temporal termination, and internal temporal structure or change:

- 'For activities: "A was running at time t" means that time ***instant*** t is on ***a*** time stretch throughout which A was running.
- For accomplishments: "A was drawing a circle at t" means that t is on ***the*** time ***stretch*** in which A drew that circle.
- For achievements: "A won a race between t1 and t2" means that ***the*** time ***instant*** at which A won that race is between t1 and t2.
- For states: "A loved somebody from t1 to t2" means that at ***any instant*** between t1 and t2 A loved that person.'

<div align="center">(Vendler 1957:149, emphasis mine)</div>

Put another way, these classes can be schematically expressed as below:

(18)   State   ——————   love, contain, know
             Activity   ~~~~~~~~   run, walk, play
             Accomplishment   ~~~~~~~x   make a chair, walk to school
             Achievement   x   die, drop, win the race

<div align="center">(adopted from Li & Shirai 2000:330)</div>

According to this schema, simple states do not feature an internal structure during the time span over which they apply (e.g. *love, know, be smart*). Activities are dynamic events that involve internal change and continuous duration but also lack natural endpoints (e.g. *walk, run, work, writing papers*). Accomplishments also contain the Activities' sense of continuous duration, but dissimilate in the sense that they feature a bound point of temporal termination (e.g. *draw a picture*, *bake the cakes*). Achievements, finally, have an

instantaneous conclusion or endpoint, without featuring the sense of duration found in the other two events (e.g. *arrives, die, recognise*).

Apart from Vendler's four-way classification, there are also other systems of categorization of different types of eventualities. For instance, researchers like Tenny (1987), Sybesma (1999) do not distinguish between achievements and accomplishments, given that they only differ in terms of 'the duration of the event which precedes the result' (Tenny 1987:20), and so draw only a three-way distinction. Others, for example Comrie (1976), Smith (1997) extend Vendler's classification adding one more category, namely, the class of 'semelfactive' verbs (e.g., *cough, tap, knock*) which resemble achievements with respect to punctuality, but differ from achievement in that semelfactives encode no endpoint. Van Valin (2006) further splits up achievements into those with agents and those without agents.[13]

However, as pointed out by Rosen (1999), what is more crucial to our understanding of how events are encoded in the grammar is not the classification of event types itself, but a set of temporal features that underlie the classification. The standard assumption is that there are two main features that are relevant to the situation type classification:

	-dynamic	+dynamic
- telic	State	Activity
+telic	Achievement	Accomplishment

Studies on temporal features have widely agreed on the two-way distinctions among the four types of predicate: dynamicity[14] and telicity.[15] It is an important basis on which syntacticians project and develop a structure of functional heads associated with event structures, which will be focused in the following sections.

2.2.1.2 Inner Aspect is compositional

Another important question concerns where this lexical aspectual information comes from. Is it lexically encoded or syntactically compositional? Even though Vendler's classes are referred to as verb classes, it should be apparent that in order to determine lexical aspect, looking at verbs alone does not suffice. As remarked by Verkuyl (1972), the presence and type of object also count. In particular, dynamic telic verbs and dynamic atelic verbs are marked as different partly because the objects of telic verbs are compulsory and 'quantized' (Verkuyl's terminology) while those of atelic verbs are optional and non-quantized.

The examples in (19) illustrate that the existence of a quantity object always results in dynamic telic events (at least, in English), as evidenced by their ability to be modified by *in*-adverbials.

---

[13] See Rosen (1999) for a review of other classification systems of different predicate types.

[14] One of the crucial defining criteria of dynamic predicates is that they involve volitional subject (see Iatridou et al 2003, Nossalik 2009). The following chapters will show how volitionality is given a privileged status in the syntactic structure.

[15] Telicity has been defined differently in the literature. It either refers to a potential endpoint/ a culmination point (Smith 1997, Ramchand 2003, Travis 2010) or a change or state (Rothstein 2004, Nossalik 2009). I follow the former understanding of telicity since it fits better to Vietnamese data.

(19) a. 'Arthur planted [a protective circle of mushrooms] around the house in one day.'
              Singular indefinite   Telic

      b.   'Edmund ate [the box of Turkish Delights that the Queen gave him] in 5 minutes.'
              Singular definite   Telic

          c. 'Susan read [the engravings on the door] in 2 minutes.'
              Plural definite   Telic

          d. 'The magician produced [two maps of Narnia] in an instant.'
              Numeral   Telic
                          (Examples of Nossalik 2009:33)

The data in (20), in contrast, indicate that if the object is missing or does not denote a specific quantity, the predicates are interpeted as atelic:

(20) a.   'Shasta waited for them *in 2 days/ for 2 days.'
              No object   Atelic

      b.   'Lucy drank tea *in ½ an hour/ for ½ an hour.'
              Mass noun   Atelic

      c.   'Arthur saddled horses *in 10 minutes/for 10 minutes.'
              Bare plural   Atelic
                          (Examples of Nossalik 2009:34)

Among the other factors determining the situation type of a sentence, the presence and type of object is of greatest importance. Therefore, any syntactic analysis of lexical aspect has to take into consideration the question of how the internal argument can affect the telicity of the whole predicate-phrase.

What is more, in English, according to Nossalik (2009), the lexical aspect of the predicate can be influenced by the addition of the goal phrase XP (as in (21)), or of a particle (as in (22)), or by the type of construction involved (e.g., resultative construction, as in (23)), etc.[16]

(21) a. 'He pushed a cart *in 3 hours/ for 3 hours.'   Atelic

      b. 'He pushed a cart <u>into the garage</u> in 3 hours/ *for 3 hours .'   Telic

(22)   a. 'I wrote the reports up.'   Telic

          b. 'I drank **up** the wine.'   Telic

(23)   a. 'Robin ran asleep (i.e., she ran while she was asleep) *in 10 minutes/for 10 minutes.'   Atelic

---

[16] The readers are referred to Nossalik (2009:32) for a comprehensive analysis of the computation of English telicity.

     b.   'Kim danced wet with sweat *in 5 minutes/for 5 minutes.'   Telic

<div align="right">(Borer 2005: 229)</div>

Evidently, these sentences indicate that lexical aspect is compositionally determined. These elements contributing to the computation of lexical aspect of the sentence are named 'delimiting elements' by Tenny (1987). In particular, the three main delimiting elements proposed by Tenny (1987) are: verb particles, resultatives, and the dative argument in double object construction. Subsequently, Slabakova (1999) refers to these as aspect-related constructions and argues that they are related manifestations of the same parameter setting when she applies this analysis to second language acquisition.

Summarising the discussion thus far, for present purposes I will simply assume that there are four main types of predicates in Vietnamese: states, activities, achievements, and accomplishments, with two-way distinctions: dynamicity and telicity. The next concern is the question of what diagnostic tests are available to distinguish them in Vietnamese.

2.2.1.3 Diagnostics

Although there are plenty of dynamicity and telicity diagnostics provided in the literature (see Dowty 1979, Robinson 1995, Nossalik 2009), caution must be taken in their application. Here, I only concentrate on the diagnostics that might work for Vietnamese.

a. Dynamicity diagnostics

   (i)   The progressive diagnostic

The progressive is usually employed as an operational test to make a distinction between states and achievements on the one hand, and accomplishments and activities on the other. This test is motivated by the characteristics that the latter involves periods of time, while the former only holds at short instants. Applying Vendler's use of the progressive test, to answer the question, "What were you doing?", (24a, b) are perfectly acceptable sentences, but (24c, d) sound odd:

(24) a.   I was running   Activity

        b.   I was writing the reports   Accomplishment

        c.   *I was knowing the solution   State

        d.   ?I was finding the answer.[17]   Achievement

However, application of this diagnostic to Vietnamese yields some unexpected results. The progressive marker 'đang' is not only compatible with activities and accomplishments, but also with typical stative predicates, as shown by the examples in (25):

---

[17] (24d) can be acceptable in certain contexts, i.e., where achievements can include some sort of development process (i.e., the process which precedes or leads to the culmination point). It is this process that can be conceived as in progress as pointed out by Pustejovsky (1988), and consequently, these achievements are able to progressivize. They are often treated as coercion.

(25) a. Tôi đang chạy   Activity
        1s   DUR   run
        'I was running.'

     b. Tôi đang viết thư   Accomplishment
        1s   DUR write letter
        'I was writing a letter.'

     c. Chúng tôi đang biết   rất ít   về   AIA[18]   State
        PLR   1S   DUR know very little about
        'We know (lit: knowing) very little about AIA.'

More examples of the progressive 'đang' with stative predicates are given in (26):

(26) a. Hội những người **đang** muốn tìm một nửa còn lại.
        group PLR   people DUR want search one half remaining
        'The group of those who want to look for their other halves'

     b. Gần nhà tôi **đang** có mấy căn hộ cho thuê đấy.
        Near house 1S DUR have several apartment   PREP let PRT
        'There are some apartments to let near my house.'

This fact, however, is not greatly surprising from a cross-linguistic point of view. For instance, although English verbs of inert perception like *see* and *hear* normally do not have the progressive forms, these forms are completely grammatical in Portuguese:

(27) a. '* I am seeing you there under the table.'

     b. '* You aren't hearing.'

(28) a. 'Estou te vendo la embaixo da mesa.'[19]

     b. ' voce nao esta owindo.'   (Comrie's examples 1976:35)

This clearly implies that more tests should be employed if one wants to differentiate between [-process] vs. [+process] predicates in Vietnamese.

    (ii)   *The 'xong'(finish) complement diagnostic*

Another dynamicity test can be better applied is the combinability of predicates with the post-verbal element 'xong' (literally means: finish) (following Uesaka 1996).[20] Given that one is only able to finish doing something that has a temporal duration, 'xong' can only

---

[18]Source: http://www.baomoi.com/Chung-toi-dang-biet-rat-it-ve-AIA/45/1514711.epi (accessed 13/12/2012)

[19]According to Jacqueline Gueron (p.c), perhaps in Portuguese, stative "hear" may be construed as "listen to" under progressive, just as in English, "I see John" is stative but 'see' takes on an active meaning in "Mary is seeing (i.e. going out with) John". However, this is not the case for Vietnamese. The stative verbs in progressive form still preserve their ordinary meanings.

[20] Borer (2005) also uses this *Finish* Complement Test, but as a telicity diagnostic. See Nossalik (2009:26) for convincing arguments that this complement test should be considered as a diagnostic of progressivity instead.

occur as complement of activity and accomplishment predicates, but not of state and achievement predicates:

(29) a.   Tôi chạy xong rồi   Activity
           1s   run   finish already
           'I finished running.'

      b.   Tôi viết thư xong rồi   Accomplishment
           1s   write letter finish already
           'I finished writing the letter.'

      c.   *Tôi biết xong   rồi   State
            1s   know finish already
            * 'I finished knowing.'

      d.   *Anh ấy chết xong rồi   Achievement
            3s DEM die finish already
            *'He finished dying.'

b. *Telicity diagnostics*[21]

(i) The progressive-past entailment diagnostic

In English, the progressive-past test is based on the observation that as for atelic predicates, the use of the past progressive form can entail the simple past form, while there is no such entailment for telic predicates, as shown by the contrast in (30):

(30) a. 'Peter was eating apples.   ENTAIL   Peter ate apples.'

     b. 'Peter was eating an apple. NOT ENTAIL   Peter ate an apple.'
                           (Nossalik's examples 2009:25)

Therefore, 'eat apples' is atelic, whereas 'eat an apple' is telic.

The same effect holds true for Vietnamese.

(31) a. 'Họ **dang** đi trên đường cái. ENTAIL Họ **đã** đi trên đường cái'
         3P   DUR go on road main   3P ANT go   on road main
         'They were going on the main road.'   'They went on the main road.'

      b.   'Họ **dang** đi đến trường. NOT ENTAIL Họ **đã** đi đến trường.'
           3P DUR go to school   3P ANT go   to   shool
           'They were going to school.'   'They went to school.'
                       (Cao's examples 2003:551)

---

[21] One of the most common telicity diagnostics is the compatibility of the predicate with 'for X time'/'in X time' adverbials. This diagnostic, however, does not work well for Vietnamese. See Verkuyl et al (2005) for how this test might work out 'differently in different languages' (2005:6). Also, see Ramchand (2008) for the reason why 'for X time' and 'in X time' are actually sensitive to different things, and why therefore, 'notions of telicity based on these common diagnostics are seriously flawed' (Ramchand 2008:221). For this, I do not use the 'for X time'/'in X time' to identify telic predicates in Vietnamese.

Therefore, 'đi trên đường cái' in (31a) is atelic, whereas 'đi đến trường' in (31b) is telic.

   (ii) The conjunction diagnostic

The conjunction test relies on the fact that truly telic predicates entail completion, therefore the combination between a telic predicate and a phrase expressing that the described event is unfinished leads to a contradiction, whereas such a combination is felicitous for atelic predicates:

(32) a. *(Yesterday) He ate three apples and hasn't finished eating them yet.
       *Telic + Unfinished

      b. He ate apples and hasn't finished eating them yet.
        Atelic + Unfinished

A similar test can be applied to Vietnamese:

(33) a. *Nó **đã** ăn ba   cái bánh nhưng chưa xong/hết**[22]**   *Telic + Unfinished
         3S ANT eat three   CLS cake but   NEG FINISH/END
        *'He ate three cakes, but he hasn't finished eating them yet.'

      b. Nó **đã** ăn   bánh   nhưng chưa xong/hết   Atelic + Finished
        3S ANT eat   cake   but   NEG FINISH/END
        'He ate (some) cakes, and he hasn't finished eating them yet.'

It can be seen that examples in (33) form a minimal pair contrasting only in the quantization of the object: 'ăn ba cái bánh' (eat three cakes) is telic, while 'ăn bánh (eat cakes) is atelic. This aspectual effect of the object will be further discussed in the chapters to come.

To sum up, Inner Aspect is not considered as an inherent property of particular lexical predicates, instead it is best viewed as a compositional property of the verb-phrase, as other lexical elements contained within the verb-phrase, including the object NP as well as other independently projected post-verbal particles, contribute equally to determining aspectual interpretations.

2.2.2 The syntax of Inner Aspect.

In contrast to the relatively rich evidence in support of Viewpoint Aspect being syntactically projected within inflectional zone of the clause, evidence for the syntactic encoding of lexical aspect is considerably more sparse. This is since it is often morphologically obscured and its interpretation is conditioned by other factors including type of verb, the presence and quantization of object, the type of prepositional complement, and so forth.

---

[22] The sentence is ill formed in the sense that 'he ate three cakes, but he hasn't finished eating all **three of them** yet'. Note that it is, however, still acceptable in the contexts where he has eaten three cakes, but there are still more cakes to eat, so his activity of eating cakes is not done yet.

Recent studies have, however, provided evidence in favour of the view that both types of aspect are projected in the syntax, despite having different realisations. Inner Aspect has been located in the syntax under different labels; e.g., Travis's (2010) Inner Aspect projection, Borer's (2005) Quantity projection, or Van Hout & Roeper's (1998), and Ritter & Rosen's (1993, 2000) AgrO (Object Agreement) projection.[23]

Importantly, semanticists' insightful observations of the lexical aspect have been integrated into syntactic investigations of the VP structure (Hale & Keyser 1993, Pustejovsky 1991, Ramchand 2003, Rothstein 2004, Borer 2005). The idea, in a nutshell, is that differences in lexical aspect interpretation arise from different structural bases: either by assigning different features (Travis 2010) or positioning different functional projections into the syntactic structure (Ramchand 2003, MacDonald 2006, Nossalik 2009).

2.2.2.1 Ramchand (2003, 2008)

One of the most interesting attempts to correlate morpho-syntactic structure with the semantics of event structure in an intimate way is found in the work of Ramchand (2003, 2008). Pursuing the intuition that lexical, semantic and syntactic generalizations are all driven by the same set of abstract primitives, Ramchand (2003) attempts to construct a verbal decompositional structure which is shared crosslinguistically. In her proposal, the eventive construction of predication in a language consists of (maximally) a causing subevent, a vital process, and a result state, which are represented syntactically in what she calls 'first phase syntax'[24] as the following tree:

(34)

---
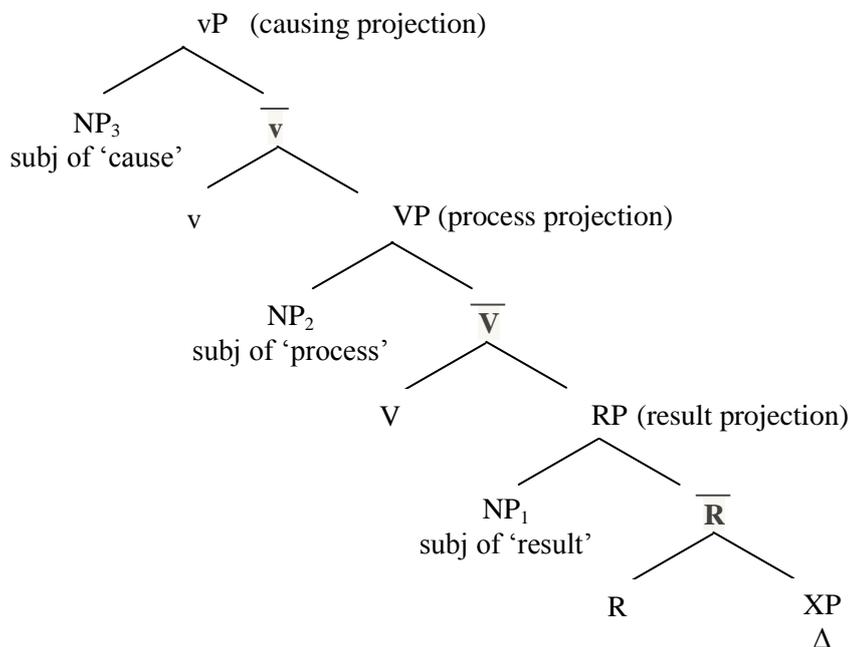
[23]Van Hout's proposal (along the line with Ritter & Rosen's) is crucially based on the significant relation between Object Case/Agreement and Telicity. Since Case distinctions are not overtly realized in Vietnamese, in this thesis, I do not follow this line of analysis.

[24] 'First-phase' is used in the sense that the vP is a 'first' verbal phase, and it is equivalent to 'l-syntax' (lexical-syntax of Hale & Keyser 1993, in opposition to s(yntactic)-syntax.

(Adopted from Ramchand 2003)

As can be seen from the tree, the verb phrase contains three projections corresponding to three sub-parts of the whole event. The interpretation of (34) is given in (35):

(35) a. 'vP introduces the causation event and licenses different types of external argument   ('subject' of cause)

b. VP specifies the nature of the change or process and licenses the entity undergoing change or process ('subject' of process)

c. RP gives the 'telos' or 'result state' of the event and licenses the entity that comes to hold the result state ('subject' of result)'.   (Ramchand 2003:18)

Consider the sentence in (36) where the syntactic features on the verb are maximal:

(36) 'John defused the bomb.'
(37) Cause-Process-Result: x defused y
(38)
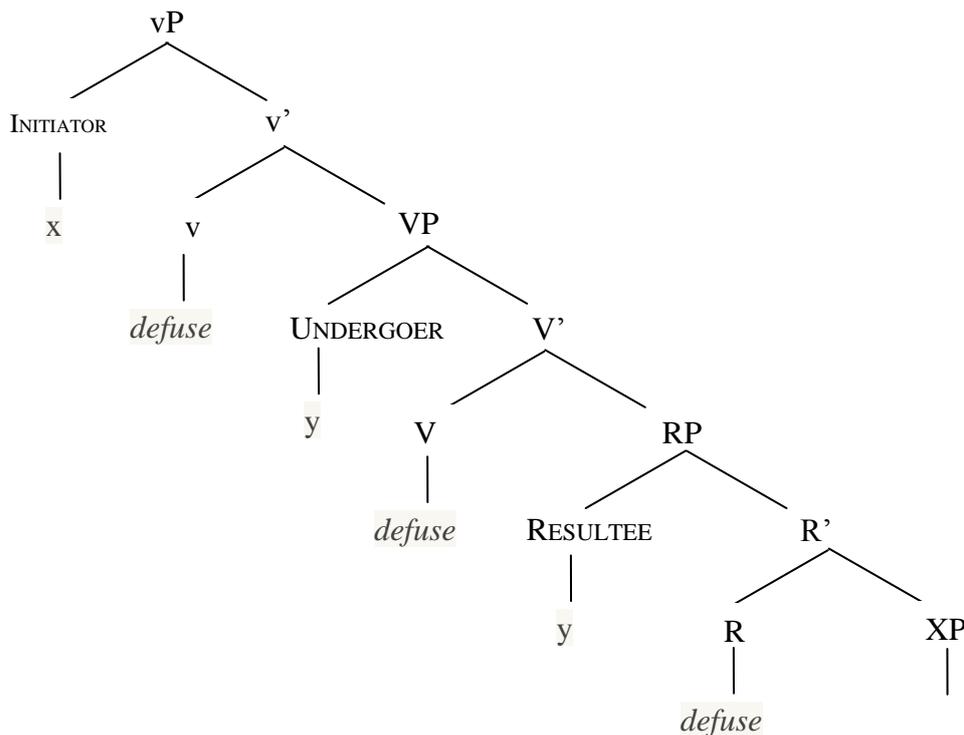
(Ramchand 2003:29)

The verb in question is base generated as the head of R and moves through V to v. The DP 'the bomb' raises from Spec, RP to Spec, VP. Note here that 'the bomb', through undergoing the act of defusing, also achieves the final state of being defused and thus, 'the bomb' indicates both the 'subject' of result and the 'subject of process'. The DP 'John' merges in Spec,vP and is understood as the 'subject' of cause. In this case, we have an accomplishment/result transitive verb.

According to Ramchand, the only obligatory projection is the (intermediate) V head indicating the process portion of the event, vP and RP are generally optionally realised

depending on the predicate type. Crucially, the hierarchical sequence between the functional heads must be well-kept. Consequently, different predicate types have different functional projections in the structure. For instance, sentences like (39), the inchoative counterpart of the causative (36), only bear VP and RP projections:

(39) The bomb is defused.

Conversely, for a transitive activity sentence as in example (40), only vP and VP are licensed:

(40) John pushed the cart.

The relationship between three projections is the locus of differences among syntactic proposals of Inner Aspect. Representing the syntactic structure of 4 types of aktionsart, some researchers who share the same stance as Ramchand, such as Borer (2005), Nossalik (2009) claim that four types of lexical aspect are laid out by different phrase structures. Others (especially Travis 2010) advocate for a different view that all 4 types share the same phrase structure, which consists of three projections: two VP shells and one functional category intervened between the two. Specification of each type, however, is shaped by features assigned into these projections. Researchers like MacDonald (2006), on the other hand, argue that specification of each predicate type is determined by both structure and features. Each of them will be discussed in details.

2.2.2.2 Nossalik (2009)

Nossalik (2009), following Borer (2005),[25] also proposes that different predicate types have different VP structures. Specifically, dynamic predicates differ from non-dynamic predicates because the former structurally involves a causative vP projection, while this projection is absent in the latter's structure. Likewise, given that telicity is purely a matter of the presence or absence of Asp_QP (Aspect of Quantity) in the structure, only telic predicates contain an Asp_QP, while atelic ones lack this projection.

As a consequence, simple states are VPs only because of its non-dynamic and atelic nature. For instance, the phrase structure of (41a) is (41b):

(41) a.   John loves Mary
      b.

```
              VP
             /  \
           DP     V'
        HOLDER   / \
                V   DP/AP
```
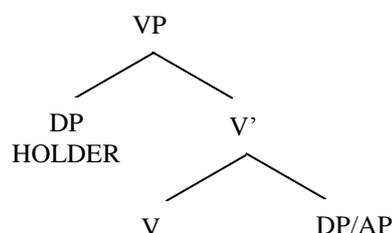
Achievements are non-dynamic, but atelic. Therefore, unlike states, they contain an Asp_QP projection.

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[25] Nossalik's is chosen over Borer's for Borer is concerned with a wide range of event-related properties that go far beyond the domain of Inner Aspect. Here I only confine myself to the syntactic proposals that specifically focus on Inner Aspect.

(42) a. John died.

    b.

$$
\begin{array}{c}
\text{Asp}_Q\text{P} \rightarrow \text{telic} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{UNDERGOER} \qquad \text{Asp}_Q\text{'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{Asp}_Q \qquad\qquad \text{VP} \\[4pt]
\text{BECOME} \quad \swarrow \qquad \searrow \\[2pt]
\text{THEME} \qquad \text{V'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{V} \qquad\qquad \text{AP}
\end{array}
$$
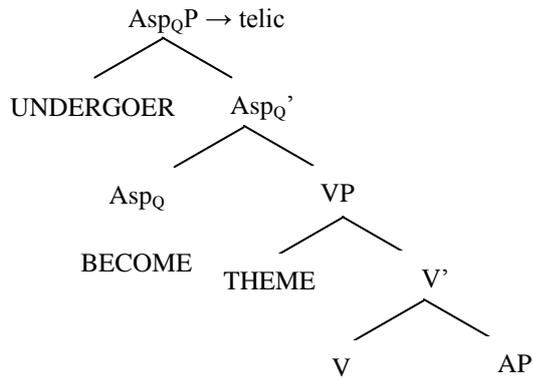
Activities, in contrast, are dynamic but atelic. Instead of Asp_QP, they project a causative vP functional head:

(43) a. John is running.

    b.

$$
\begin{array}{c}
\text{vP} \rightarrow \text{dynamic} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{INITIATOR} \qquad \text{v'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{v}^{\circ} \qquad\qquad \text{VP} \\[4pt]
\text{CAUSE} \quad \swarrow \qquad \searrow \\[2pt]
\text{THEME} \qquad \text{V'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{V}^{\circ} \qquad\qquad \text{AP}
\end{array}
$$
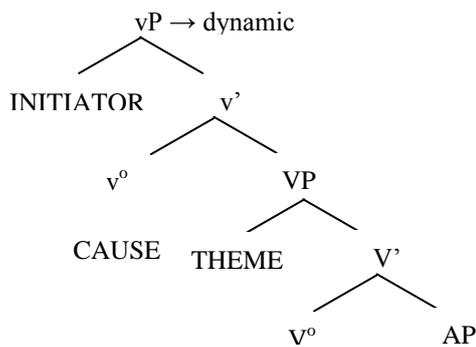
Finally, accomplishments are the most complex events and hence contain all of the three projections:

(44) a. John ate the apple.

    b.

$$
\begin{array}{c}
\text{vP} \rightarrow \text{dynamic} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{INITIATOR} \qquad \text{v'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{v}^{\circ} \qquad \text{Asp}_Q\text{P} \rightarrow \\[2pt]
\text{CAUS} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{UNDERGOER} \qquad \text{Asp}_Q\text{'} \\[2pt]
|\textbf{quantity}| \\[4pt]
\text{Asp}_Q{}^{\circ} \qquad \text{VP} \\[4pt]
\text{THEME} \qquad \text{V'} \\[4pt]
\swarrow \qquad \searrow \\[2pt]
\text{V}^{\circ} \qquad\qquad \text{AP}
\end{array}
$$
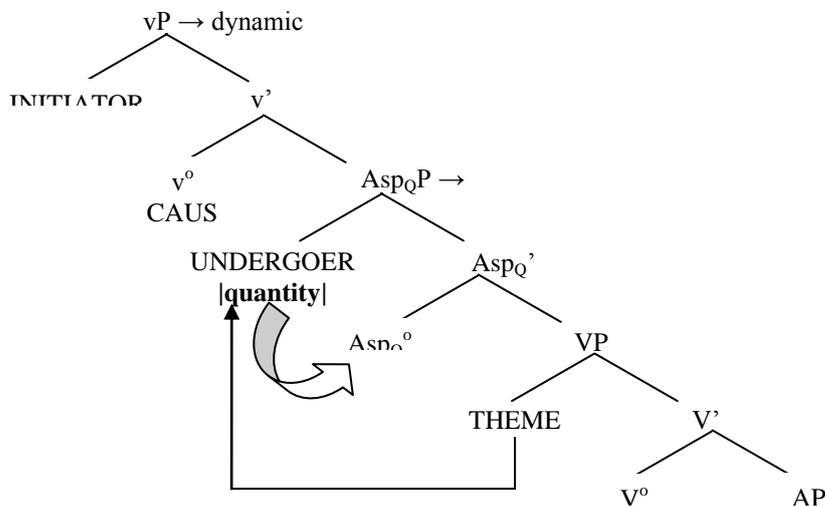
According to Nossalik, telicity of an accomplishment predicate is calculated compositionally: the verb obtains its telicity from a quantized DP in [Spec, Asp$_Q$P],[26] via AGREE.[27]

One thing to note about Nossalik's representation, which is also consistent with Ramchand's (2008), is with respect to argument roles. In (44), we have a clear hierarchy of thematic roles: the highest argument, which is in the specifier of causative vP, is perceived as an INITIATOR. THEME is the structurally lowest argument, which is merged within the VP. In accomplishments (for instance, John ate the apples), the [+q] direct object ('the apples' is definite) first merges into THEME, then moves into [Spec, Asp$_Q$P], which is interpreted as an UNDERGOER, i.e., the argument that goes through a change of state (being eaten by John), to agree with Asp$_Q$ and give rise to a telic predicate. Vietnamese data, as will be shown in the following chapters, are directly in favour of this thematic hierarchy.

2.2.2.3 MacDonald (2006, 2010)

MacDonald (2006), in a slightly different syntactic representation of Inner Aspect, claims that both the existence of Asp projection and event features play role in deriving different types of aspectual predicates. In particular, a syntactic distinction within English can be formed between states and non-states depending on whether or not the AspP is projected between the two VP shells.

(45)
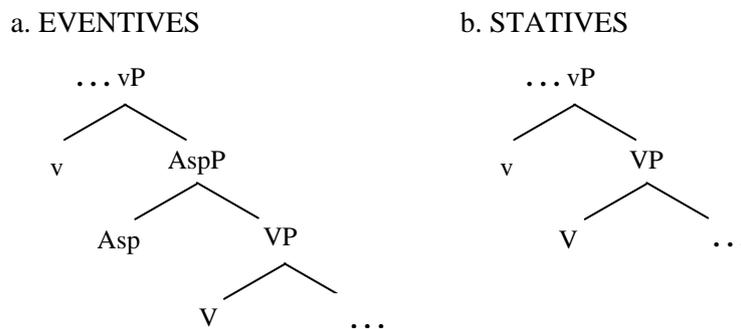
(MacDonald 2006:8)

On the other hand, the existence of event features, which indicate whether the event has an inital stage or a final stage (abbreviated as <ie> and <fe> respectively) is argued to differentiate three types of eventive predicates in the syntax. If we are to assume that a predicate has two event features, i.e. both a beginning and an end, then the predicate is to be acknowledged as telic. An atelic predicate, on the other hand, features less than two event features. Accomplishments differ from activities in the following way:

---

[26] Please note that [Spec, Asp$_Q$P] is a moved position, as the DP object is initially merged in [Spec, VP] and then moves to [Spec, Asp$_Q$P] to agree with the verb. This view is also shared by Ramchand & Svenonius (2002), and Travis (2010).

[27] Also note that according to Nossalik, the Agreement direction in English is downwards, while it is upwards in Russian. I will return to this point in section 2.2.2.5.

(46)

       a. ACCOMPLISHMENT   b. ACTIVITY

```
        ...vP                               ...vP
        /   \                               /   \
       v    AspP <ie>                      v    AspP <ie>
            /    \                              /    \
          Asp   VP<fe>                        Asp    VP
                 /  \                                /  \
                V   ...                             V   ...
                |
              <fe>
```
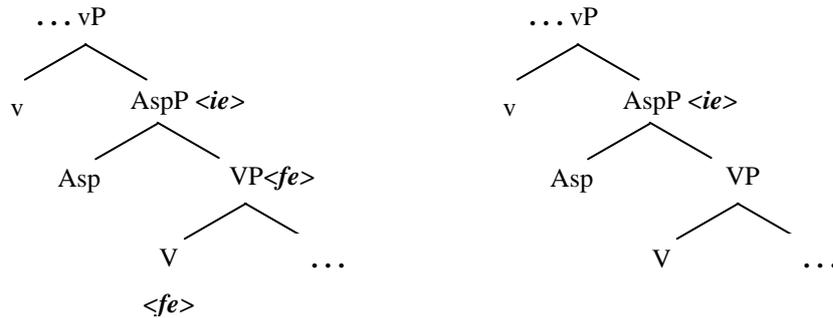
(MacDonald 2006:9)

Finally, accomplishments and achievements are distinguished according to the criterion that accomplishments have each event feature on different heads, which results in a duration between the initial and the final stages of the event, in contrast, the event features of achievements appear on the same head, therefore the event is punctual:

(47)

ACHIEVEMENT

```
        ...vP
        /   \
       v    AspP <ie>
            /    \
          Asp    VP
          / \    / \
       <fe> <ie> V  ...
```

(MacDonald 2006:9)

What brings MacDonald's account closer to our discussion is when he puts forward that there exists a 'structural domain of aspectual interpretation' and points out what and what does not belong to that domain.

(48)

```
              ...vP
              /   \
            vP    (PP-location)        Do not contribute
           /  \                        to aspectual
      (MN/BP)  v'                      interpretation
             /   \
       (CAUSE)   AspP
                /    \
              Asp    VP
                    /  \
              (MN/BP)  V'
                      /  \
                     V   PP-Goal
                         /    \
                     (P_Goal) (BP)
```

Contribute to aspectual interpretation

(MacDonald 2010:79)

According to MacDonald (2010), it is only the elements which feature lower in the structure than AspP, including the internal argument DP's (either mass nouns or bare plurals, abbreviated as MN and BP respectively in (48),[28] goal PPs and bare plural complements of goal Ps, that can determine the aspectuality of the predicate.[29] To illustrate, both mass noun and bare plural direct objects ([-q] DPs) give rise to atelic interpretation of the predicate in (49b) (50b) examples:[30]

(49) a. 'John ate an apple   *for ten minutes.'   telic

      b. 'John ate <u>cheese</u> for ten minutes.'   atelic

(50) a. 'John drank a pitcher of beer *for ten minutes.'   telic

      b. 'John drank <u>beer</u>   for ten minutes.'   atelic

(MacDonald's examples 2010: 71, 74)

Moreover, only bare plural DPs (not mass noun DPs) can derive a 'sequence of similar event' interpretation of the predicate (51a), i.e., within ten minutes John drank one bottle of beer, he drunk another in the next ten minutes, and this continued for an hour straight:

(51) a.   'John drank bottles of beer in ten minutes (for an hour straight).'

      b.   'John drank beer *in ten minutes (for an hour straight).'
(MacDonald's examples 2010:74)

A goal PP can function to telicize an atelic predicate:

(52)   'John carried the bag <u>into the bedroom</u> in/*for ten minutes .'
(MacDonald's example 2010:72)

The 'sequence of similar event' interpretation is also available in case of bare plural DPs as the complement of goal Ps:

(53)   'John carried the bag into <u>bedrooms</u> in ten minutes (for an hour straight).'
(MacDonald's example 2010:75)

Conversely, the aspectual interpretation of the predicate is not influenced by any elements that feature in a structurally higher position than AspP, such as external arguments (either as mass nouns, or bare plurals), location PPs and CAUSE. For example, the predicate is still telic in spite of of the [-q] feature of a mass noun external argument:

---

[28] In MacDonald's (2010), mass noun DPs and bare plural DPs show distinct aspectual interpretation and distribution.

[29] Please note that in Travis (2010), the structure is slightly different. Not all of the elements under the scope of AspP can contribute to the aspectual computation. Specifically, THEME in its merged position, i.e., [Spec, V$_2$P] is excluded from the computational domain of Inner Aspect as the object can measure out the event only when it raises from its base-generated position to [Spec, AspP]. Travis makes it clear that 'ASP only has access to its own SPEC, its complements and the complements within its complements' [Travis 2010:118-119).

[30] All of the examples in this sub-section are cited from MacDonald (2010).

(54) 'Wildlife ate the bag of trash in ten minutes/*for ten minute.'
                    (MacDonald's example 2010:74)

It is also not possible for the bare plural external arguments DP to evoke the 'sequence of similar event' reading of the predicate, i.e., (55) cannot be rendered as within ten minutes one animal ate a bag of trash, a second animal ate a bag of trash in ten minutes, and this continued for an hour straight:

(55) 'Animals ate the bag of trash in ten minutes *for an hour straight.'
                    (MacDonald 2010:79)

Whereas a goal PP can turn an atelic predicate into a telic predicate, a location PP cannot:

(56) 'John carried the bag at the park *in/for ten minutes.'

The same holds true for CAUSE since CAUSE presents an external argument causer, which is higher than Asp. As in (57b), the addition of John does not affect the aspectuality of the predicate, both *in*-adverb and *for*-adverb are still compatible:

(57) a. 'The soup cooled for 10 minutes/ in 10 minutes.'

    b. 'John cooled the soup for 10 minutes/ in 10 minutes.'
                    (MacDonald 2010:78)

In a nutshell, whether an element can have an aspectual effect to the predicate depends on its position relative to AspP in the structure. This point will become important when we start our analysis of Vietnamese Inner Aspect in the chapter 5.

2.2.2.4 Travis (2010)

Finally, in Travis's (2010) representation, all four predicate classes share the same structure, i.e., having 3 projections, as follows:

States: Achievements

(58)   (59)
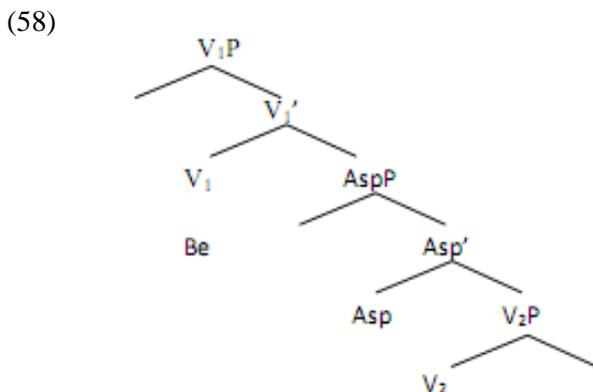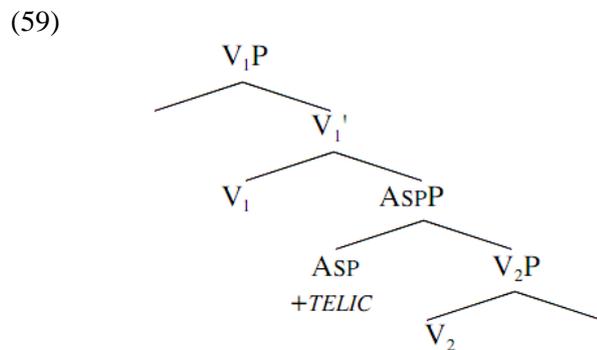
Achievements also project a V_1 as states, but they further have +TELIC feature in ASP. Similarly, accomplishments and activities basically have the same structure, but differ only in the computation of ASP.

Accomplishments:[31]
(60)
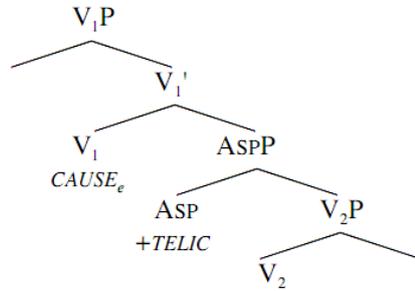
Activities:
(61)
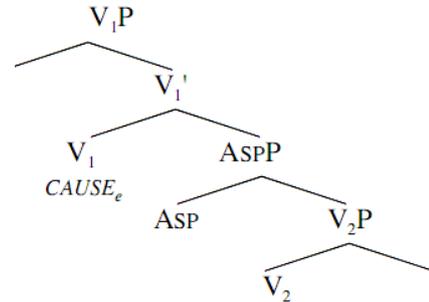
(Travis 2010:119-120)

The similarity in the architecture of the four predicate types allows the flexible shift among them. For example, a predicate can move back and forth between the two types, activity and accomplishment, only with a change in [+/-q] feature of the DP object.

(62) Activity ⟶ Accomplishment

   a. 'Mary pushed the cart down the road *in 3 minutes/!for3 minutes.' Activity

   b. 'Mary pushed the cart into the garage !in 3 hours/*for3 hours.' Accomplishment

(63) Accomplishment ⟶ Activity

   a. 'Mary built a cart !in 3 hours/*for3 hours.' Accomplishment

   b. 'Mary built carts *in 3 hours/for3 hours.' Activity

(Travis's examples 2010:121)

Therefore, the difference between the four types of predicate is not determined by the structure, but by feature specification. This claim makes Travis' proposal differ from others' proposals (Ramchand 2003, MacDonald 2006, Nossalik 2009, etc) in which different predicate types are assumed to derive structurally from different functional projections present in the syntactic representation of the predicate phrase.

One thing that makes Travis' account of Inner Aspect particularly relevant to the discussion of Vietnamese is her claim that the syntactic projection of Inner Aspect allows us to introduce into the structure a finer distinction between the base positions of two types of Cause arguments. These are realised as Intentional Causers ([Spec, V_1]) and Inadvertent Cause ([Spec, InnerAsp]).

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[31] Please note that in (60) and (61), the operator in V_1 is CAUSE$_e$, standing for Eventive Cause (or Intentional Causer), which is to be distinguished from to stative cause (or Inadvertent Cause). We will return to discuss this distinction shortly.

(64)

```
                    V₁P
                   /    \
   INTENSIONAL CAUSER    V'₁
                        /   \
                      V₁     InnerAspP
                            /        \
            INADVERTENT CAUSE         InnerAsp'
                                     /        \
                               InnerAsp        V₂P
                                              /    \
                                                    V'₂
                                                   /   \
                                                 V₂     THEME
```
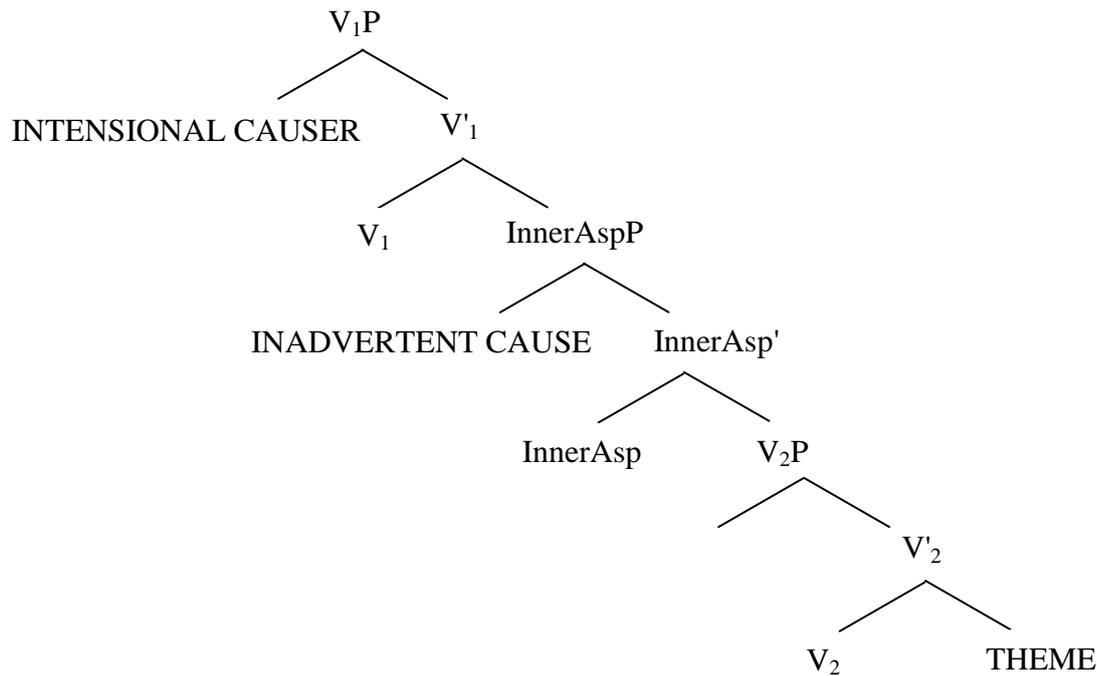
The main reason to claim this distinction comes from the morphology of Malagasy. The prefix –(a)ha (which appears as maha- in the present tense), serves to telicize the predicate, i.e., its presence turns an activity into an achievement, and therefore is taken to be base generated in InnerAsp:

(65) a. mijery 'to look at'   mahajery 'to notice'   √ *JERY*

     b. mandinika 'to examine'   mahadinika 'to remark'   √ *DINIKA*
        (Travis 2010:214)

This morpheme also has a causativizing function: its addition to an unaacusative eventive predicate gives rise to a causative reading, and crucially, this must be interpreted as a non-agentive cause:

(66) a. 'Tsara   ny   trano.'
         beautiful DET house
       'The house is beautiful.'

     b. 'Mahatsara   ny trano ny voninkazo.'
        PRES.A.HA.beautiful   DET house DET flowers
       'The flowers make the house beautiful.'   (Travis 2010:222)
     c.   NO AGENT
       '* Mahatsara   ny trano Rabe.'
         PRES.A.HA.good   DET house
       'Rabe makes the house beautiful.'   (Travis 2010:225)

To account for this constraint, Travis argues that –ha, as the head of InnerAspP, cannot license (Intentional) Agent, which is assumed to merge in a higher position – [Spec, V1]. -Ha can only license the argument that is base generated in its specifier position, namely

non-intentional Cause. One implication of this analysis is that contra the standard twofold classification Agent vs. Theme, it is in favour of a three-way thematic contrast of VP-internal arguments: Intentional Cause (prototypical Agent) > Non-intentional Cause > Theme, in which Non-intentional Causes are projected independently, and structurally lower than 'Intentional Causers', but higher than Theme. The Vietnamese data will show that this distinction goes beyond simply interpretational effects, and really has a structural consequence.[32]

2.2.2.5 Cross-linguistic variation on Inner Aspect

Given the articulated VP structure, the next question is how to account for the parametric variation in the realization of Inner Aspect crosslinguistically. Each of the proposals above has a distinct way to deal with cross-linguistic variation.

Nossalik (2009), following Borer (2005), argues that even though both English and Russian have the projection of Inner Aspect in their phrase structure, the direction of Agreement between the telicity head and the direct object in its specifier position can be parameterized. In English, it is downwards, i.e., English accomplishments acquire their telicity indirectly from a [+q] DP via Spec-Head agreement; on the other hand, in Russian, the direction is upwards, in other words, in Russian, an aspectual morpheme within Asp_Q^0 passes on the [quantity] feature to the accomplishment, where it is subsequently passed down the structure to the DP in [Spec, Asp_QP] as a result of Spec-Head agreement. The intuition behind this telicity parameter is that the most important factor in determining the telicity of the predicate is the direct object in English, while it is the telic prefixes in Russian.

With respect to this, Vietnamese, on the one hand, seems to be in common with Russian in marking telicity morphologically overtly (i.e., telicity must be guaranteed by the presence of certain telic particles), and also share with English, on the other hand, in the role of the internal argument in the computation of telicity (i.e., even without the presence of telic particles, the numeral DP can still render telicity).[33] The telicity parameter proposed by Nossalik might work well for the contrast between English and Russian, but it is much less clear on whether Vietnamese is categorized as using direct or indirect telicity assigning mechanism.[34]

MacDonald (2006, 2010), on the other hand, explains the variation between the two languages by proposing that English and Russian actually have different phrase structure: English has the projection of Inner AspP in their phrase structure whereas Russian lacks of this projection. He also provides three diagnostic tests for the presence of Inner Aspect in a given language:

(67) i. The ability of noun phrases to determine the telicity of the predicate.

    ii. A particular iterative interpretation elicited by bare plurals.

    iii. The ability of (goal) prepositions to turn an activity predicate into an accomplishment predicate.

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[32] See Duffield (2011) for application of Travis's proposal in English.
[33] Please see chapter 5 for detailed discussion on Vietnamese.
[34] According to Filip (2004), this type of telicity parameter over-generates even in English and Russian.

English shows all three properties (as many other languages do: Spanish, German, Hungarian, Finnish), while Russian (and Slavic more generally, although Bulgarian is a special case) does not.

Again, difficulty can be found in applying these diagnostics into a language rather than English and Russian. For example, MacDonald assumes that 'this same mapping (i.e. the mapping from object to event, my clarification) does not seem to present in ... Chinese' (MacDonald 2006:3), which means Chinese should be classified as a language that lacks the Inner Aspect projection. Closer investigation of Chinese, however, reveals a picture that is more subtle than this. As convincingly argued by Soh & Kuo (2005), Chinese DP's cardinality does bring about telicity of the predicate.[35] That is to say, all the three diagnostics proposed by MacDonald must be treated with care if one wants to apply it into a given language.

Despite lots of differences, Nossalik and MacDonald, both concerned with the difference between English and Russian, share the same idea that the telicity parameter is only confined to one single Inner Aspect phrase, which is sandwiched between the two VP layers. Perhaps it is the reason why their proposals are hard to apply to languages where telicity is encoded outside of this Inner Aspect phrase.

In contrast, Ramchand and Travis's accounts allow much more flexibility and diversity in encoding telicity cross-linguisticlly.

Ramchand (2008) argues that her VP-internal decompositional structure (InitiateP>ProcessP>ResultP) is universal, languages vary only in the 'size' of the lexical items. Accordingly, telicity markers can be an instantiation of the ResultP in one language (for example, telic particles in Germanic, see Ramchand & Svenonius 2002), but can instantiate both the ResultP and the ProcessP in other languages (such as, light verbs in Hindi/Urdu, or Chinese,[36] see Butt & Scott 2002, Butt & Ramchand 2005).

Travis (2010) explicitly claims that telicity can be encoded in three positions namely V1, Inner Asp, X:

(68)

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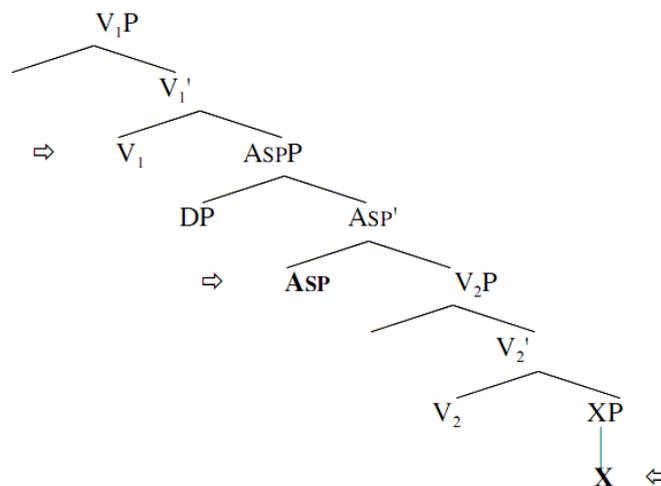
[35] Please chapter 6 for further discussion.
[36] Even within Chinese, different telicity markers can instantiate different heads (See Butt & Scott 2002 for details).

Travis uses pre-verbs in Bulgarian (and Polish) to exemplify marking telicity in V1, and telic morphemes in Malagasy to illustrate encoding in ASP, and goal phrases in English and resultative predicates Chinese to depict telicity assigning in X. Interestingly, languages can utilize more than one of these (for example the Athabaskan languages of Navajo and Slave).

I see no incompatibility between Ramchand's and Travis's proposals as they both represent the telicity parameter as a structural variation. Combining Travis's insights with Ramchand's nanosyntax's perspective, I assume that the cross-linguistic variation situates at micro level, i.e., telic morphemes of different languages spell outs phrasal constituents of different sizes: they can either lexicalize only one, or two out of three or even all of the three heads (V1, InnerAsp, X). Given this assumption, the thesis aims to figure out where Vietnamese encodes telicity in the structure.

To conclude this section, all these syntactic accounts agree that there is a VP-internal functional projection that accommodates aspectual meaning. Despite the differences in detailed representation, these accounts are all based on the assumption that languages share the same basic Event Structure decomposition at the first phase. Therefore, it will be really interesting to look at language variation where more synthetic languages like Western European ones usually possess lexical items that contain multiple features, while more analytic languages like South East Asian ones have separated lexical instantiations for each feature.

2.3 Combination of Outer Aspect and Inner Aspect.

Finally, another significant question is how the interaction between the two levels of aspect works. Outer Aspect and Inner Aspect, as shown above, are independent aspectual components and encoded in the syntax differently. Therefore, bringing them together will shed some light on the functional structure of the sentence. According to Travis (2010), VP is extended both externally and internally as given below:

(69)

```
                    CP
             Spec        C'
                   C           TP
                         Spec       T'
                               T          OAspP
                                    Spec        OAsp'
                                          OAsp        EP
                                               Spec        E'
                                                     E          V₁P
                                                          Spec       V₁'
                                                                V₁         AspP
                                                                     Spec       Asp'
                                                                           Asp        V₂P
                                                                                Spec       V₂'
                                                                                      V₂        XP
```
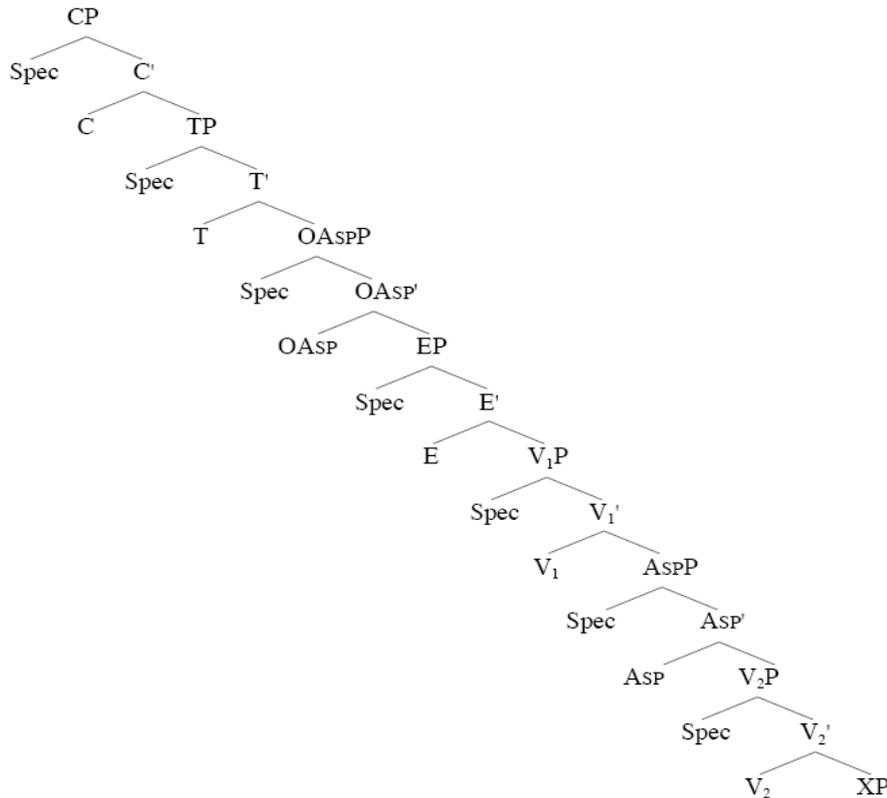
The essential properties of this articulated phrase structure are:

    (i)   There are two distinct aspectual head positions in a clause: one appears outside of the VP (Outer Aspect) and the other appears inside the VP (Inner Aspect).

    (ii)   There is also one more event-related projection presented in the structure: the EventP which is right below OuterAspectP and right above VP. [37]

Based on word order facts in Western Austronesian languages and a consideration of aspectual interpretation of events, Travis provides three lines of evidence for this extended VP structures.

The first form of argument comes from the claim of a VP-internal derived object position using syntactic data. Whilst generative syntax accepts the existence of derived objects, the position in which the object moves to still remains a subject of debate. Travis argues that a possible location is below the base-generated position of the external argument, a proposal that is supported by cross-linguistic evidence, including from 'applicatives in Bahasa Indonesia', 'topicalization in Kalagan', and 'low object shift in Swedish'. For instance, in Kalagan (a Philippine language), this is the assigned position in which the "topic" (the nominative case marker) occupies. The subject, the object, the instrumental, the benefactive and the locative, amongst a variety of other constituents, can be realised as the topic, and thus locate to a position within the VP and between the Agent and the Theme.

(70) KALAGAN

    a. 'Kumamang **aku** sa tubig na lata kan Ma' adti balkon na lunis.'

---

[37]EP, according to Travis, is responsible for infinitival marking (in French and English), subjunctive marking (in English), and DP licensing (in Malagasy), etc.

AT-get   **I** water with can for Father on porch on Monday
'I'll get the water with the can for Dad on the porch on Monday.'

b. 'Kamangin ku **ya tubig** na lata kan Ma' adti balkon na lunis.'
ThT-get   I **water** with can for Father on porch onMonday

c. 'Pagkamang ku **ya lata** sa tubig kan Ma' adti balkon na lunis.'
IT-get   I **can** water for Father on porch onMonday

d. 'Kamangan ku **ya Ma'** sa tubig na lata adti balkon na lunis.'
BT-get   I **Father** water with can on porch onMonday

e. 'Kamangan ku **ya balkon** sa tubig na lata kan Ma' na lunis.'
LT-get   I **porch** water with can for Father on Monday

(Travis 2010: 6-7)

This argument alone, however, is not sufficient evidence for the structure claimed above since the object could be attaching to V$_2$P below the merged position of the external argument.

Secondly, morphological evidence from Tagalog (reduplication facts) leads Travis to propose the possibility of aspectual morphology functioning in positions lower than V$_1$. For instance, in Tagalog, the morpheme *pag-* is believed to fill the V$_1$ position as it introduces the external argument of causative constructions:

(71) TAGALOG
     ✓ **tumba**   fall down
     t-um-**umba**   X fall down
     m-*pag*-**tumba**   Y knock X down
                (Travis 2010:7)

Interestingly, there is a reduplicative morpheme which can intervene between *pag-* and the root and give rise to an incomplete reading of the event:

(72) nagtutumba   n + m + pag + REDUPLICATIVE + V

Travis argues that *pag-* is merged in V$_1$, the root is in V$_2$, and the reduplicative morpheme occupies Inner Aspect. Tagalog provides morphological grounds in favour of the view that there exists a functional category inside the VP that is responsible for the aspectual interpretation of the predicate.

Combining these two proposals together, Travis claims that the object has raised to [Spec, Inner Aspect] position.

Lastly, through the computation of Aktionsart, she finds semantic evidence for this account of VP structure, where she observes a correlation between sub-components of the VP and sub-parts of predicate class, as already shown in the previous sections.

We will argue that the distribution and co-varying interpretation of the temporal/aspectual elements in Vietnamese represent a natural reflection of the phrase-structure advanced by Travis (2010).

2.4 Conclusion

The purpose of this chapter is to provide a theoretical context of the study, by highlighting previous work in which one or other type of Aspect—or both—have been argued to be projected, to have independent syntactic positions in the phrase structure. In the first part of the chapter, the focus was on Outer Aspect, and the distinction between Outer Aspect and Tense: though they are semantically and syntactically parallel, Outer Aspect is hierarchically lower than Tense. The latter sections of this chapter focussed on Inner Aspect: evidence adduced from a wide variety of analyses and language varieties supports the view that Inner Aspect is realized within the VP shells and that its semantic effects can be computed compositionally through the combination of the core predicate with other VP-related elements. These included the quantization of the object, different kinds of post-verbal particles, etc. Keeping these distinctions in mind will help to tease apart many problems of Vietnamese tense and aspect.

Chapter 3: Literature review of Vietnamese Tense and Aspect

3.1 Introduction

There is a strong disagreement in the literature[1] on how Tense and Aspect are realised in Vietnamese. On the one hand, there exists a tendency to deny the existence of tense as a grammatical category in Vietnamese, as illustrated by Cao Xuân Hạo's statement:[2]

'*Tiếng Việt tuyệt nhiên không có thì... Khi cần định vị một sự tình trong thời quá khứ hay hiện tại, tiếng Việt dùng đến những khung đề có ý nghĩa từ vựng thích hợp như: xưa kia, trước đây, hiện nay, bây giờ*'[3](Cao 1998:10)

This view crucially relies on the well-documented observation that Vietnamese lacks inflectional morphology in expressing temporal relations, and instead contextual or adverbial elements are usually recruited to mark such distinctions:

(1) a. <u>Ngày mai</u> chị ấy đi Zurich dự   hội thảo.
         Tomorrow   3S DEM go Zurich attend conference
         'She is going to Zurich to attend a conference tomorrow.'

     b. <u>Hôm qua</u> bố mẹ tôi tổ chức   kỉ niệm   20 năm ngày cưới.
         Yesterday parent 1s   celebrate anniversary 20 year   day wedding
         'My parents celebrated their 20th wedding anniversary yesterday.'

A second line of opinion, on the other hand, states that Vietnamese actually has Tense, in as much as Vietnamese does employ a number of morphology-like devices which are generally considered to add a certain temporal value to the verb to which they are combined. Analyses of this kind center on the three preverbal elements: 'đã', 'đang', 'sẽ' and are crucially influenced by Western European linguistics in identifying the three

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[1] See Trần Kim Phượng (2008) for a fine-grained review of traditional descriptions of tense/aspect in Vietnamese.
[2]See also Nguyễn Đức Dân (1996) for a similar viewpoint.
[3]'Vietnamese has no tense at all ... To locate a situation in the past or at the present, Vietnamese employs lexical abverbials such as: long ago, in the past, nowadays, at the present' (translation mine).

markers. In this viewpoint, *đã* is usually assumed to signal the past tense, *sẽ*- the future tense and *đang*-the present tense. For instance, Thompson (1965) claims that:

'The words **đã** 'anterior' and **sẽ** 'subsequent' are tense markers'
(Thompson 1965:206)

or Phan Khôi (1955) notes that:

'Những chữ như **đã**, **đang**, **sẽ** mới thật sự là biểu diễn được cái hồn của thì. Vì nó [...] có sức làm nổi bật lên cái ý nghĩa vững chắc sâu sắc của quá khứ, hiện tại, vị lai.'[4]
(Phan, K 1955/1997:112)

Another view proposes that Vietnamese not only has Tense but also Aspect, and the three morphemes are markers of both Tense and Aspect (Trần Trọng Kim et al 1940, Nguyễn Minh Thuyết 1995, Panfilov 2002, Trinh 2005). With the main claim that both Tense and Aspect exist in Vietnamese; and they exist independently from each other, my account can be categorised into this group; it integrates all the data that have been mentioned previously. In that sense, my proposal is not novel. My contribution is however, to provide new and independent supporting evidence for every aspect of the analysis whilst using a theoretical framework that enables us to explain the intricate behaviour of Tense and Aspect markers in Vietnamese.

In particular, in this thesis, I will scrutinise the interpretation and distribution of a number of morphemes that serve as means of expressing temporal/aspectual relations. Even though these morphemes are not obligatory in the sense that they are not inflectional parts of the verb as their counterparts in more synthetic languages, what is crucial is that when they are pronounced, they display a rigid ordering and consistent distributions in the structure. They can be divided into two main groups based on their distributional properties, i.e., whether they precede or follow the main verb. Given the importance of word order in analytic languages like Vietnamese, their different positions with respect to the main verb tell us much more about the way in which Vietnamese conveys grammatical relationship syntactically. Preverbal elements in question, for the most part, including the anterior morpheme *đã*, the durative *đang/đương* are related to the notion of viewpoint aspect. Postverbal elements such as result-denoting particles including *hết* ('end'), *xong* ('finish'), *ra* ('out'), *thấy* ('see'), *'được'* ('can'), *'phải'* ('must'), on the other hand, indicate the notion of situation aspect. It will be argued that Vietnamese has two aspect-related systems that work independently of each other, namely, the system of pre-verbal viewpoint aspect (or Outer Aspect) markers vs. the system of post-verbal telicity (or Inner Aspect) markers.

3.2 Previous studies on preverbal aspectual markers.

Preverbal markers of Tense and Aspect have received a great deal of interest in the Vietnamese literature. The lists of the preverbal markers and the precise function and interpretation of each of these markers, however, have still been issues of controvercy. Therefore, before reviewing some previous studies, I will first make a distinction between

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[4] The words 'đã' 'đang' 'sẽ' truly have the spirit of tenses, for they are able to highlight the past, the present, and the future – oriented interpretation (translation mine).

truly tense/aspect markers (the trio: the future morpheme *sẽ*, the anterior morpheme *đã*, the durative *đang)* and other possible time-related adverbs, which are also listed as tense/aspect markers in some works (Bùi Đức Tịnh 1967, Đào Thản 1979, Nguyễn Minh Thuyết 1995, Nguyễn Kim Thản 1997, Duffield 2007, Trần Kim Phượng 2008, Do-Hurinville 2009), such as *từng* (remote past), *mới* (recently), *vừa* (just), *sắp* (near future: to be about). The crucial criterion is based on their different interaction with the sentential negation 'không'.

In negative contexts, although both the two groups can appear before the main verb, the former further precedes the negator, while the latter cannot (or if they can, the sentence must be interpreted as constituent-negation).

Declarative sentences   Negative sentences

(2) a. Nó **sẽ** làm việc đó
     3S FUT do job DEM
     'He will do it.'

   b. Nó **sẽ không** làm việc đó
     3S FUT NEG do job DEM
     'He will not do it.'

(3) a. Nó **đã** làm việc đó
     3S ANT do job DEM
     'He did it.'

   b. Nó **đã không** làm việc đó
     3S ANT NEG do job DEM
     'He did not do it.'

(4) a. Nó **đang** làm việc đó
     3S DUR do job DEM
     'He is doing it.'

   b. Nó **đang không** làm việc đó
     3S DUR NEG do job DEM
     'He is not doing it.'

(5) a. Nó **từng** làm việc đó
     3S ADV do job DEM
     'He has done it.'

   b. Nó **từng không** làm việc đó
     3S ADV NEG do job DEM
     NOT: 'He hasn't done it.'[5]
     BUT: 'He used to not do it.'

(6) a. Nó **mới** làm việc đó
     3S ADV do job DEM
     'He has just done it.'

   b. Nó **mới không** làm việc đó
     3S ADV NEG do job DEM
     NOT: 'He hasn't just done it.'
     BUT: 'He has just stopped doing it.'

(7) a. Nó **vừa** làm việc đó
     3S ADV do job DEM
     'He has just done it.'

   b. Nó **vừa không** làm việc đó
     3S ADV NEG do job DEM
     NOT: 'He hasn't just done it.'
     BUT: 'He has just stopped doing it.'

(8) a. Nó **sắp** làm việc đó
     3S ADV do job DEM
     'He is about to do it.'

   b. Nó **sắp không** làm việc đó
     3S ADV NEG do job DEM
     'He is about not to do it.'

---

[5] The well-formed way to express the meaning 'He hasn't done it' in Vietnamese is:
 (i) Nó chưa (từng) làm việc đó
    PRN NEG ADV do job DEM
    'He hasn't done it.'
Even in this case, 'từng', unlike the three 'đã', 'đang', 'sẽ', follows the negator.

As illustrated by the above examples, the temporal adverbials only modify the predicate directly, and do not occur as high as the three genuine tense/aspect markers 'đã', 'đang', 'sẽ', and thus, are excluded in our analysis.

Another characteristic to distinguish the two groups relates to their semantics. Unlike the three markers 'đã', 'đang', 'sẽ'; the adverbs 'vừa', 'mới', 'từng', 'sắp' not only anchor the situation time with respect to the utterance time (before, after, or at), but also point out how far from the utterance time the situation time is located: 'vừa', 'mới' are somehow equivalent to recent past, 'từng' to remote past, 'sắp' to near future in English (see also Panfilov 2008, Trần Kim Phượng 2008). This is to say, these temporal adverbs are more lexically contentful than the three truly functional tense/aspect markers.

Among the three preverbal elements, 'đã' is the most controversial word with its highly complex applications semantically and syntactically, thus has drawn a great quantity of attention in the Vietnamese literature. Since all the debates center on 'đã', reviewing several existing influential accounts on this morpheme is sufficient to obtain a panorama of previous analyses of Vietnamese Tense and Outer Aspect.

3.2.1 Semantic accounts of 'đã'

a. 'đã' as a past tense marker

It has been asserted in many places that *đã* marks the past tense, provided that *đã* refers to an event that occurred before the time of speaking (Nguyễn Minh Thuyết 1995, Nguyễn Đình Hoà 1997, Panfilov 2008):

(9)   Mấy hôm trước Hoa **đã**   đến nhà tôi   chơi.
       Few day before   ANT come house 1s   play
       Hoa came to visit my house a few days ago.'

However, a number of counter-examples can be easily found where the preterite temporal meaning of *đã* is apparently cancelled by context. To recapitulate, *đã* is found in such non-past settings as in sentences indicating the present and the future:

(10) a. Kìa, Sơn **đã**   đến   rồi.
        Look   ANT arrive already
        'Look, Son arrives already.'

    b. Ngày mai khi   anh đến,   Sơn **đã**   đi   rồi.
       Tomorrow when PRN come,   ANT leave already
       'When you come tomorrow, Sơn will have already left.'

Furthermore, many sentences expressing past situations do not necessarily contain '*đã*', or even turn out to be ill-formed if containing '*đã*'. Those are the cases when the time reference is clear from contextual or adverbial elements. For instance, a series of successive containing-'đã' sentences would be awkward in Vietnamese native speakers' intuition as the time reference is already indicated by the adverb 'hôm qua' (yesterday).

(11) '* Hôm qua tôi **đã** đến nhà anh.   Tôi **đã** không gặp anh. Tôi **đã** gặp vợ anh.   Vợ
anh **đã** nói   là anh **đã**   đi Hà Nội rồi.'

Yesterday   1s ANTcome house 3s. 1s ANT NEG meet 3s. 1s ANT meet wife 3s. Wife
3s ANT say COMP 3s ANT go   already.

'I came to visit your house yesterday. I did not see you. I met your wife. Your wife
said you had already gone to Hà Nội.'

(Example of Trần Kim Phượng 2008:89)

These examples without doubt indicate that *đã*, is not as utterance-time-oriented as other
typical tense morphemes. In this sense, the morpheme *đã* is not an absolute past tense
marker.

However, strictly speaking there still exists cases in which *đã* is purely past tense marker.
In particular, Panfilov (2008) points out that *đã* in combination with atelic predicates are
often ambiguous between perfect and preterite readings (as shown in 12), and only negated
form of 'đã' can disambiguate the two readings. In other words, Panfilov claims that 'đã'
has two negated forms, the former bears the 'perfect' meaning, and the latter is exclusively
preterite as in (13):[6]

(12) 'Nó **đã** đi.'
3s ANT go
'He has gone.'/ 'He left.'   Perfect or Preterite

(13) a. 'Nó chưa   đi.'
3s   NEG_PERF go
'He hasn't gone yet.'   Exclusively Perfect

b. 'Nó **đã** không đi.'
3s   ANT NEG   go
'He didn't go.'   Exclusively Preterite   (Panfilov 2008:202)

(13a) is felicitous in the situation where a party is currently taking place somewhere, but
for some reason the subject has not left for that party yet, though he planned to join later.
(13b) is used in the context where the party has already took place in the past (say,
yesterday), and the subject did not in fact join that party at all. That is to say, (13a)
describes a currently relevant event, while (13b) denotes a past event.

It is sufficient to keep in mind, at this stage, that 'đã' must be interpreted as a purely past
tense marker when it precedes sentential negation.

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[6]Interestingly enough, the contrast between two forms of negation also shows up in Yes-No question context:
  a. Nó **đã**   đi **chưa**?.
3s ANT   go NEG_PERF
 'Has he left yet?'
  b. Nó **có** đi **không**?
3s ASR go NEG?
 'Did he go?'
The reader is referred to Duffield (2009a, 2013b) for an original account of Vietnamese Yes-No questions.

In brief, to pin down exactly where the situation is located with regard to the speech time, *đã* is of limited support. *Đã* is also of interest in terms of the way in which it interacts with other grammatical phenomenon like negation; therefore, this must be taken into account in any analyses of 'đã'.

b. 'đã' as a perfective marker

Because of its independence of the time line, *đã*, in other studies is treated as a perfective marker representing the result or completion of the situation (Hoàng Tuệ 1998). According to Hoàng Tuệ, the invariable meaning of 'đã' is completive whatever the time line of the context is:

(14) a. Mẹ   **đã**   về   hôm qua   Past
      Mummy ANT return yesterday
      'Mummy was back yesterday.'

    b. Kìa,   mẹ   **đã**   về   Present
      EXC, mummy ANT return
      'Look, mummy is back.'

    c. Ngày mai, mẹ   **đã**   về   rồi.   Future
      Tomorrow, mummy ANT return already
      'Mummy will be back tomorrow.'

However, a number of pieces of empirical evidence can be given to show that this account of *đã* is less than adequate. In actual fact, *đã* only marks the completion of telic situations. Obviously, in the case of a clear temporally telic situation like (14), the situation marked by *đã* will be complete before a certain reference time. However, when the verb encodes an event which lacks a natural boundary, 'đã' does not presuppose completion:

(15) Nó   **đã** chạy được   hai tiếng rồi
     3S   ANT run obtain two hour already
     'He has run for two hours.'

The starting point of the running activity occurs before the time of speech, but the endpoint is left open, it might have ended before, at the same time, or after the time of speech. Only the total context determines what the precise endpoint of the action is. The perfective reading, therefore, comes from the meaning of the predicate, rather than from the meaning of *đã'* on its own. Unlike typical markers of perfectivity, 'đã' does not relate to the end-point of the situation. In contrast, it will be argued later on to refer to the initial stage of the situation instead.

c. 'đã' as a perfect marker

So far, the most comprehensive study of the semantics of *đã* in terms of its implication and presupposition is found in Cao (2003). Proposing that *đã* is a perfect aspect marker, Cao firstly points out that a *đã* sentence, although it refers to an event that takes place before the point of speaking or some other point of reference, really implies about the present result state of this event. For example, what the speaker of (16) below actually means is that his stomach is now full and he is filled with satisfaction with food and drink.

(16) Tôi **đã** ăn sáng   rồi
    1s   ANT eat morning already
    'I have eaten breakfast.'

The past event is viewed not from a reference point also set in the past, but from a point of reference which is simultaneous with the utterance time. This 'current relevance' effect is one of the features of the perfect aspect, as this term is generally understood (Comrie 1976). I agree with Cao that the above generalization is essentially correct, but it does not seem precise enough to account for all relevant data. It is hard to see from (17) that this currently related state can be descriptively right, unless we shift the view point of 'currently' to the time denoted by the temporal expression *năm giờ chiều ngày mai* 'five o'clock tomorrow afternoon':

(17) Năm giờ chiều   ngày mai, em   **đã**   gặp được   anh   rồi.
    Five hour afternoon tomorrow, 1s   ANT meet obtain 2s already.
    'By five o'clock tomorrow afternoon, I will have already met you.'

This means that the idea of current relevance by its self is inadequate to determine the use of the perfect or the past in all contexts.

Secondly, given the assumption that presupposition is supposed to make up the basic meaning of one element, Cao thoroughly investigates the combination of *đã* with different kinds of predicates.[7] When *đã* co-occurs with dynamic telic verbs, although it requires the event to take place prior to the point of speaking and wholly complete in the past, its main emphasis is on the present result of this already-over event.

(18) Tôi **đã**   lĩnh   lương rồi.
    1s   ANT receive salary already.
    'I have already received my salary.'

The sentence with the co-occurrence of *đã* and dynamic atelic verbs like (19), in the meanwhile, asserts the inception of the event of water flowing but expects that this event is still in progress. Again, it presupposes that the water did not flow earlier.

(19) Nước **đã** chảy rồi   mẹ   ạ.
    Water ANT flow already mum PRT
     'Mum, the water has started flowing.'

In case of non-dynamic atelic verbs like (20), 'đã' only directs our attention to the present state of being well. What is more, it presupposes that the state of being well did not hold at some time before the reference time.

(20) Tôi **đã**   khỏe rồi
    1s   ANT BE.strong already
    'I have already recovered.'

Cao also states that the similarity in all cases of combinations is that 'đã' imposes a relationship between two temporally successive and semantically bounded events,

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[7] See also Nguyễn Văn Thành (2003), Panfilov (2008), Trần Kim Phượng (2008) for a similar observation.

therefore implies some sort of change of state or transition. This is what he calls the 'duality' effect, which is another well known feature of the perfect aspect.

In short, what makes Cao's semantic account of the perfect 'đã' most relevant to the discussion is that he brings into the picture the significance of telic/atelic distinction. Particularly, the perfect 'đã' bears a completive reading when it combines with telic events, while it obtains an inchoative interpretation when preceding atelic events. However, treating 'đã' as a purely perfect marker cannot make comprehensible of cases when 'đã' can naturally co-occur with 'chưa' (not.yet),[8] the marker of negated perfect, whose semantics is supposed to be directly opposite with the perfect 'đã', as shown in (21):

(21) Chúng ta **đã chưa**   huy động mọi nguồn lực trong chiến dịch vừa   rồi.
      1p   ANT NEG$_{PERF}$ mobilise   all   resource   in   campaign recent finish.
      'We hadn't mobilised all of the resources in the recently finished campaign.'

The interesting interaction of 'đã' and negative markers (*không, chưa*), which will be shown to be of importance to identify 'đã' as a temporal or aspectual marker in our account, is not mentioned at all by Cao.

To sum up, in the traditional research, *đã* is inconsistently considered as a past time marker, a perfective aspect marker, or a perfect aspect marker. The disagreement among different studies of 'đã' shows two things: 1. 'Đã' itself behaves flexibly, i.e., its interpretation varies depending on the type of predicate and other functional elements interacting with it (such as negation); 2. Pure semantic accounts cannot provide adequate explanation for this flexibility. Let us now have a look at syntactic accounts to see if there is any explanation to offer.

3.2.2 Syntactic accounts of 'đã'

a. Duffield 1999, 2007

Duffield's (1999) is one of the first attempts to give an in-depth proposal of Vietnamese clause structure from formal generative perspective. In this account, it is argued that the Vietnamese matrix clause is a projection of (at least) three functional categories above VP: TopicP, TenseP, AssertionP as illustrated in (22):

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[8] This observation is credited to Panfilov (2002, 2008).

(22)
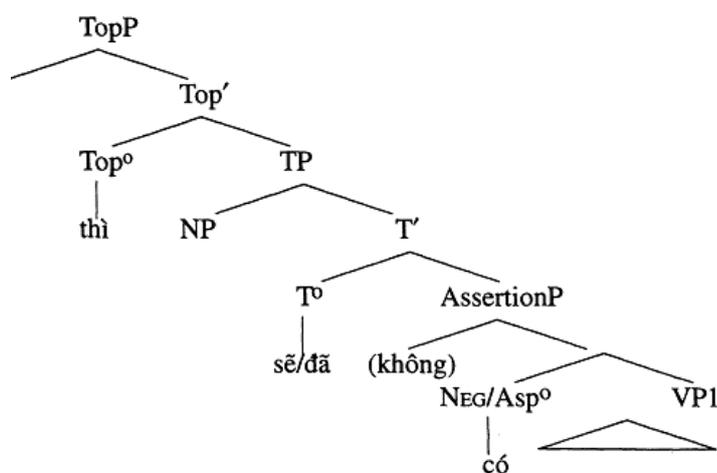
(Duffield 1999:94)

The key characteristic of Duffield's representation is the syntactic dissociation of Assertion from Tense as a way of translating Klein (1998)'s conceptual idea of finiteness into morpho-syntax. Specifically, by showing an interesting parallel (formally and functionally) between 'có' in Vietnamese and *do*-support in English (see Duffield 2007 for detail), Duffield proposed that Vietnamese *'có'* is the morphological reflex of an independent functional head of the clause, namely Assertion. This respect distinguishes Vietnamese from most Western European languages in which Tense and Assertion are often fused together.

Although Duffield's papers were not intended to give an analysis of Tense and Aspect markers in Vietnamese, two things of his proposed structure are relevant to my discussion. The first thing to point out is that with regard to TP, the two elements: the future morpheme 'sẽ' and the past-tense/ completive marker 'đã' are both assumed to be tense morphemes in Vietnamese. Duffield's main assumption is based on their fixed position in matrix clauses: they directly follow the subject; they precede the sentential negation 'không', which in turn precedes the lexical verb.

(23) a. 'Tôi cho là   ngày mai trời   (**sẽ**) **không** (***sẽ**) mưa.'
        1s think COM tomorrow   sky FUT NEG FUT   rain
        'I think that it won't rain tomorrow.'

     b. 'Anh ấy   (**đã**) **không** (***đã**) về   Việt Nam.'
         3S DEM   PAST NEG PAST   return
         'He did not return to Vietnam.'   (Examples from Duffield 1999:96-97)

However, as will be shown at great length in chapter 4, putting 'sẽ' and 'đã' under the same node of Tense only captures the superficial word order, this analysis misses out their distinct syntactic behaviours in negative and interrogative contexts. In this study, 'sẽ' and 'đã' will be assumed to be base-generated in different positions in the structure: 'sẽ' is underlyingly the head of Tense, while 'đã' is underlyingly merged lower as the head of Outer Aspect.

The second point concerns the Assertion/Negation Phrase, as the analysis of sentential negation will become important in the following chapters. Negation and Assertion were

jointly associated under the same functional projection,[9] in which negation was the specifier, and Assertion was the head. This head was proposed to gather formal features related to polarity (±Neg), clausal type (±wh), and emphasis (±Asr) under one clause-intermediate node, as schematized above. The implication behind this account is that modality or other C-related features, unlike in other analyses from functional approach or even standard formal approach, are proposed to project rather low in the structure:

(24)

```
                    _____
                   /                           \
                  T                           AsrP
                                             /    \
       VN. đã              không            /      \
       Eng. didⱼ            not          Asr        vP
                                        /  \
                                       /    \
                                [+NEG]
                                [+EMPH]
                                [–WH]
                                VN. có
                                Eng. tⱼ
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                                                        （Duffield 2007:782)
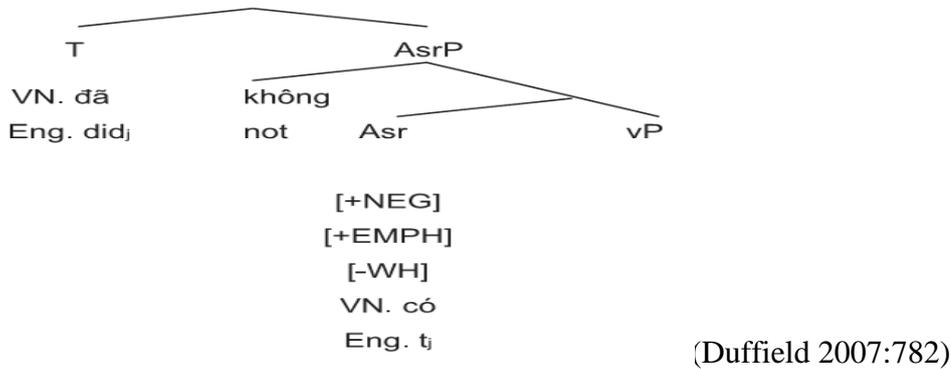
Again, this analysis of Vietnamese succeeds in directly reflecting the rigid surface word order of these functional elements, i.e., the sentential negation 'không' invariably follows the tense marker 'đã' and precedes the assertion marker 'có', as illustrated in (25):

(25) Anh ấy   **đã không (có)**[10] đến nhà tôi   để   tìm chị.
      3S DEM   ANT NEG   ASR go house 1S   PREP   find 2s
      'He did not go to my house to find you.'

Also, it unifies different functions of 'có' under one syntactic node, in other words, the emphatic 'có' in declarative sentences (such as in (25) and the question marker 'có' in interrogative sentences (in (26) for instance) were argued to occupy the same syntactic position:

(26) Hôm qua anh   ấy   **có**   đến nhà   em **không**?
      yesterday 3S DEM ASR   go house   2S NEG?
      'Did he go to your house yesterday?'

Given that Vietnamese Yes-No questions are constructed by using 'có' in collocation with the sentence-final 'không' (as illustrated in (26)), this analysis, however, raises the question of how to analyse the sentence-final 'không' while still preserving the structure in (24). To answer this question, Duffield (1999, 2007) argued that sentence-final 'không' in (26) was not a negative marker as in (25), but a pure question marker, which was right attached to the vP inside the c-commanding domain of the [+Q] 'có'. Therefore, in this account, 'không' was treated as an adverb, which can attach to different positions in the clause. However, from categorical feature point of view, 'không' in Vietnamese, as convincingly argued in Trinh (2005:12), is not an adverb, but a modal verb which takes a VP as its complement and therefore precedes all predicates and has sentential scope. It

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[9] See Chomsky (1957), Laka (1990) for the theoretical motivation of this idea.
[10] The bracket indicates that some dialectal variations of Vietnamese such as Northern Vietnamese do not allow 'có' to co-occur with 'đã' and 'không'. What is crucial here, however, is that whenever 'có' is phonetically realized, it obligatorily follows 'đã' and 'không'.

suffices to say at this stage that 'không' is by all means projected independently of 'có' in the structure.[11] In the following chapter, the so-called 'TP' will be further split into TenseP and AspectP; AsrP into NegationP and EventP, in order to capture all the descriptive facts listed above.

b. Trinh 2005

One of the attempts to split TP in Vietnamese is Trinh's (2005) proposal, as schematized in (27):

(27)

(Trinh 2005:9)
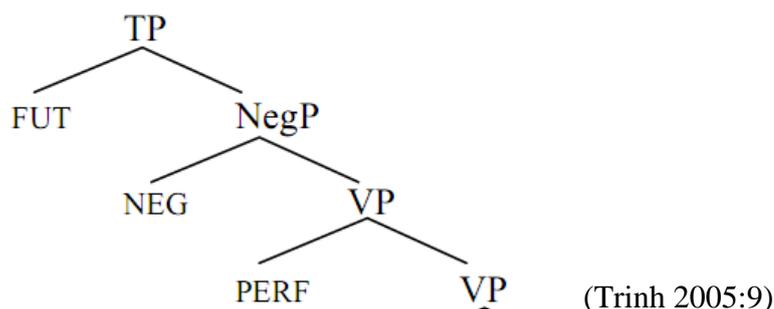
According to his analysis, TenseP, headed by the future marker 'sẽ', can be apparently divorced from PerfectP, headed by the perfect marker 'đã', by the intervention of NegationP. His essential piece of evidence to separate Tense from Aspect is the different compatibility of these markers with negation, specifically while the future tense marker 'sẽ' is able to harmoniously combine with negator 'không', the perfect aspect marker 'đã' is not. This suggests that the perfect 'đã' is base generated below Tense.

(28) a. Nó **sẽ không** đi
     3S   FUT NEG go
     'He won't go.'

   b. Nó **đã   không** đi
     3S   ANT   NEG   go
     NOT: 'He hasn't gone yet.'[12]
     BUT: 'He did n't go.'

As further noted by Trinh, (28b) is only grammatical in the preterite reading, i.e. it means 'he did not read books.' Therefore, in order to derive the right interpretation of (28b) (namely the preterite reading of 'đã'), while at the same time respect universalist

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[11] Capturing all these descriptive facts, Duffield (2009a, 2013b) proposed a more fine-grained analysis of 'không'. Under the spirit of Kaynian Antisymmetry (Kanye 1995), he argued that the sentence-final interrogative 'không' and the sentence-medial negative 'không' are the same morpheme occupying the head position of NegP, forces the whole phrasal complement to move to its specifier. The motivation for this predicate raising is for interpretive reason, namely, for the complement phrase to get out of the scope of NegP in order to overtly check their [+Q] feature. I follow this revisited proposal. See Chapter 4 for detailed discussion.

[12] The grammatical way to express the meaning of 'He has not read books' in Vietnamese is (i):
     (i)   'Nó chưa đi'
               3S NEG_PERF go
               'He hasn't gone yet.'

constraints (under the spirit of Head Movement Constraint (Travis 1984), the perfect 'đã' cannot raise to T over the overtly realized Negation head 'không'), Trinh is led to propose that there is another lexical item PAST which has the same phonetic matrix as PERF but is base generated in T. Thus, there are two lexical entries PERF and PAST which have the same phonetics: *đã₁* [PAST] is homonymous with *đã₂* [PERF].

According to Trinh, this claim can be further supported by the fact that in perfect sentences, speakers of Vietnamese almost always use the adverb 'rồi' (which literally means: 'already') to disambiguate the two readings of 'đã':

(29) 'Nó (**đã)** đọc sách **rồi**.'
    3S ANT read book already
    'he has read books already.'   (Trinh 2005:16)

The observation that 'đã' is often dropped in the presence of 'rồi' (as indicated by the bracket in (29)) leads Trinh to claim that 'rồi' is 'on its way to become the sole marker of the perfect aspect' (Trinh 2005:61)[13]. I disagree with him in this respect. Although we acknowledge that 'rồi' seems to have an aspectual effect which may be stronger than that of a normal adverb and that it deserves some attention, we still exclude 'rồi' in our study of true aspect markers. The main justification for this comes from the fact that both preverbal perfectivity markers (as will be discussed at length in sections 4.2.1. and 4.2.3 chapter 4) and postverbal telicity markers (as will be shown in section 5.1.2. chapter 5) in our study are sensitive to the aktionsart of the predicate. Unlike genuine aspectual markers, 'rồi' exhibits no such restriction, i.e., it can freely combine with all four types of predicates (see Cao 2000 for a similar observation):

(30) a.   Andy Murry đoạt giải **rồi**   Achievement
                win award already
        'Andy Murray has already won the award.'

    b.   Ngoài đường trời sáng **rồi**   State
        Out   road sky bright already
        'It is already bright out there.'

    c.   Tàu chạy **rồi**   Activity
        Train run already
        'The train has already departed.'

    d.   Nó   viết bài ở văn phòng **rồi**   Accomplishment
        3S   write paper at office   already
        'He has already written a paper at the office.'

That is to say, although 'rồi' denotes some anteriority or perfectivity relation, it should be clearly distinguished from the set of the rigid aspectual markers under investigation[14].

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[13] Trinh is not the only one who puts 'rồi' on a par with 'đã' as a perfect aspect marker. See also Cao (2003), Do-Hurinville (2009), Tran Jennie (2009).

[14] See chapter 5 for more discussion on the distribution of 'rồi' which clearly differs from that of aspect markers in question.

In general, by proposing two homonymous 'đã', Trinh manages to explain the loss of aspectual reading under negation contexts while maintaining the syntactic head movement constraint. However, Trinh's proposal still leaves a couple of things to be desired. First, it is counter-intuitive to postulate two separated words that both morphologicalised as 'đã', since the so-called two dissimilar homonymous morphemes 'đã$_1$' PAST and 'đã$_2$' PERFECT are still semantically related. Furthermore, as convincingly pointed out by Duffield (2013a), if 'đã$_2$' is base-generated in Outer Aspect position, it is expected to co-occur with its homonymous morpheme 'đã$_1$' PAST, which is merged in T in (31a), just as the durative *đang* is compatible with the past *đã* in (31b). But it does not as shown in the ungrammaticality of (30a):

(31) a. '*Hôm qua anh ấy   **đã không đã** đến nhà   chị.'
          yesterday 3s DEM past neg   asp arrive house   2s
          'He hadn't gone to your house yesterday.'

b. 'Hắn làm thế chứng tỏ lúc đó chính hắn cũng **đã không đang** hài lòng về mình rồi.'
   3s do that prove time DEM indeed 3s also PAST NEGDUR happy about self already.
(The fact that) he acted like that means that had not been happy with himself at that time.'
                              (Duffield's examples 2013a)

This suggests something more significant, that is to say, even though 'đã' is firstly merged under Outer Aspect, it must appear as high as in Tense. To resolve this issue, following Duffield (2013a), I will posit from multifunctional category's point of view[15] which allows the same morpheme with different interpretations in different positions to assume throughout that there is nevertheless simply one 'đã' and that the perfect 'đã' and the past 'đã' are two syntactic actualisations of the same underlying morpheme. Accordingly, the negation blocking effect is to be explained differently.

Another thing is that although Trinh explicitly claims that 'đã' must overtly rise from Asp to T, which seems to be on the right track, unfortunately he does not provide any explanation of why the raising of 'đã' is obligatory whenever it is possible. Movement mechanism of 'đã', therefore, will be more clearly spelled out in the following chapters.

To sum up, in the literature presented, *đã* has been treated inconsistently as a past time marker, as perfective aspect marker, or a perfect marker, but still has been investigated inadequately both semantically and syntactically. The reason why it is possible to arrive at such different accounts of *đã* seems to involve an incomprehensiveness of data as well as a theoretical and conceptual confusion since none of them offer precise definitions for various terminologies used.

In view of these facts, it should be clear that whatever analysis of 'đã' one may put forward, it has to answer two questions of (a) what is in the semantics of 'đã' that allows it to mark both temporal and aspectual meaning and (b) how to explain its syntactic alternations, especially its interaction with NEGATION while still complying to syntactic rules. This thesis, therefore, aims to offer a unifying analysis of the interpretation and distribution of the preverbal *đã* in Vietnamese within generative grammar framework and discuss its implications for the tense/aspect system in Vietnamese and for our understanding of tense and aspect in general.

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[15] See Chapter 1 for detail.

3.2 Previous studies on post-verbal aspectual markers

In addition to pre-verbal aspectual markers, some post-verbal morphemes are recruited as telicity markers for one thing, their presence between the main verb and the direct object serves to turn an atelic into a telic event:

(32) a. Chú bò tìm   bạn   Activity
          CLS cow seek friend
          'The cow looked for his friend.'

      b. Chú bò tìm   **ra** bạn.   Achievement
          CLS cow search out friend
          'The cow found his friend.'

The list of post-verbal telicity markers varies among researchers, but the typical cases include ra ('out'), xong ('finish'), hết ('end'), mất ('lose'), cả ('all'), được ('obtain, can'), phải ('must'), etc.

The distribution and interpretation of post-verbal aspectual markers is one of the most interesting areas of Vietnamese grammar, yet virtually ignored by previous studies. Compared to the thoroughly-researched pre-verbal markers, the literature on post-verbal ones is deficient in amount (see Duffield 1999, Cao 2000, Nguyễn Văn Thành 2003, Fukuda 2007 *inter alia*). Some significant accounts are reviewed in this section.

3.2.1 Semantic analysis of post-verbal markers

a. Cao Xuan Hao (2000)

Among the studies on this topic, Cao's (2000) serves as a brief introduction on completive markers, namely 'xong', 'hết', 'nốt', 'cả'.

The first thing to remember is that the semantics of these markers are sensitive to the aktionsart of the main predicate. Unlike the adverb 'rồi' (already), which can freely combine with any types of predicate (as shown in 33a, 33b), 'xong' (finish) mostly occurs with durative dynamic verbs (or accomplishment in Vendler's terminology) as seen in (33c).[16] Therefore, 'xong' is incompatible with punctual predicates, as illustrated in (33d):

(33) a. 'Nó đã   sửa xe **rồi**.'   Durative verb
          3S   ANT   fix car already
          'He already fixed the car.'

      b. 'Nó đã   tới   nơi   **rồi**.'   Punctual verb
          3S   ANT   arrive place already
          'He already arrived.'

---

[16] This, again, provides further evidence to confirm that 'rồi' (already), though denoting the anteriority or perfectivity interpretation, does not behave distributionally as a functional category.

c . 'Nó đã   sửa xe **xong**.'   Durative verb
　 3S ANT   fix car finish
　 'He finished fixing the car.'

d. '* Nó đã   tới   nơi **xong**.'   *Punctual verb
　　 3S ANT arrive place finish
　 *'He finished arriving.'

(Cao 2000:11)

Secondly, Cao observes that 'xong' and other telic markers can be immediately preceded by tense- related markers:

(34) a. 'Nó đã   sửa **xong**.'
　　　 3S ANT fix finish
　　　 'He finished fixing.'

b. 'Nó sửa đã   **xong**.'
　　 3S fix ANT   finish
　　 'He finished fixing.'   (Examples of Cao 2000:10)

Unfortunately, Cao does not give any explanation of how 'xong' can behave either as a telic particle (as in (34a)) or as a main verb (as in (34b)).

With regards to the distribution of these morphemes, Cao further claims that they appear in at least two positions: immediately postverbally, or following the direct object NP to indicate whether or not the event described comes to an end.

(35) a. Nó <u>sửa **xong**   xe</u> rồi.   Verb – Particle – Object
　　　 3S fix   finish car already
　　　 'He finished fixing the car.'

b. Nó <u>sửa xe **xong**</u>   rồi.   Verb – Object – Particle
　　 3S fix car finish already
　　 'He finished fixing the car.'

However, the type of object that can be followed by the particles is not reported in Cao's. Though Cao's paper contains some valuable observations, it is only confined to a small set of postverbal aspectual markers, namely completive markers. It neither mentions the contribution of other factors to the telicity of the predicate (such as the quantization of the direct object, as will be shown later on in our analysis) nor accounts for the restrictions on the combination of particles and objects. Therefore it does not offer any syntactic representation of them.

b. Nguyễn Văn Thành (2003)

Another attempt to investigate post-verbal aspectual elements is Nguyễn Văn Thành (2003), in which he regards 'đã', 'đang', 'sẽ', 'xong', 'hết', 'được', 'nổi' as an independent category, namely 'temporal-aspectual words'. Even though Nguyễn does not clearly distinguish aspect from tense, what is crucial to our discussion is the inclusion of the group of postverbal elements 'xong', 'hết', 'được', 'nổi'.

(36) a. 'Đây là   đâu? Làm sao các anh   tìm **được** Việt đây?'
     DEM COP where? How   2P   search obtain   PRT?
     'Where is it? How could you find Viet?'

<div align="right">(Nguyễn Văn Thành 2003:368)</div>

b. 'Ít ra   y   cũng còn làm được một việc   gì, còn kiếm **nổi** bát cơm cho mình ăn'.
Little out 3s   also still do can   one thing what, still search can CLS rice for self eat
'At least he is still able to do one thing, i.e. feeding himself.'

<div align="right">(Nguyễn Văn Thành 2003:371)</div>

As is immediatetly noticable, Nguyễn Văn Thành excludes 'ra' (out) from the list of post-verbal aspectual markers, and instead treats the combination of 'ra' and the main predicate as a compound predicate, i.e., construed as a whole inseparable event. However, this treatment seems to be incorrect since the negation marker 'không' can actually intervene between 'ra' and the main predicate.

(37) a. Tôi tìm   **ra**   cuốn sách
        1s   search out CLS book
        'I found the book.'

   b. Tôi   tìm   không **ra** cuốn sách
        1s   search NEG out   CLS book
        'I did not find the book.'

Similarly, other telic markers are found to follow the negator:

(38) a. Nó làm chưa   **xong** bài tập
        3s   do NEG$_{PERF}$ finish exercise
        'He has not finished doing exercise.'

   b. Nó ăn không **hết**   cái bánh.
        3s   eat NEG end   CLS cake
        'He did not finish the cake.'

Therefore, the exclusion of 'ra' in the list of post-verbal aspectual markers seems to be misleading.
Among the short-listed post-verbal markers, the author also further sets forth a clear-cut distinction between 'xong', 'hết' on the one hand and 'được', 'nổi' on the other hand in a semantic way: the former indicates the completion or termination of the event, while the latter bears resultative meaning.

However, Nguyễn's descriptive account does not offer any explanations about syntactic behaviors of these elements as well as their categorical status. The main classification criterion recruited by Nguyễn is productivity. 'Xong', 'hết', 'được', 'nổi' are claimed to be highly productive, i.e., are used frequently in combination *with any kinds of predicates* (emphasis mine). This generalization, however, turns out to be incorrect as the sensitivity to predicate-type of these elements is convincingly shown in Cao's (2000) above.

3.2.2 Syntactic accounts of Inner Aspect

a. Duffield (1999)

In an independent account, Duffield (1999) flags up a very insightful observation from syntactic point of view that the interpretation of certain post-verbal particles is conditioned by their distribution. For instance, Duffield (1999) analyses 'được', one of the most thorny elements in Vietnamese syntax, as an multifunctional morpheme in the sense that it receives different reading depending on where it is merged in a clause.

(39) a. Cô ấy **được** kiếm việc   Deontic modal
        3s DEM   obtain seek job
        'She is allowed to seek a job.'

    b. Cô ấy   kiếm việc **được**   Abilitative modal
        3s DEM   seek job obtain
        'She is able to seek a job.'

    c. Cô ấy   kiếm **được** việc   Achievement
        3s DEM   seek obtain job
        'She found a job.'

These examples illustrate that the pre-verbal 'được' corresponds to the deontic modal, the sentence-final 'được' is interpreted as 'abilitative' modal,[17] and while only in the position of immediately following the verb,'được' has a purely aspectual (achievement) reading. Therefore, 'được' in (39c) provides an apparent indication for the existence of a post-verbal syntactic position which accommodates aspectual meaning.

Duffield also reports that the aspectual 'được' constructions allow two different word orders:

(40) a. 'Tôi lái   **được** xe này.'
        1s   drive obtain car DEM
        'I managed to drive this car.'

    b. 'Tôi lái xe **được**.'
        1s   drive car obtain
        'I managed to drive a car.'   (Duffield 1999:118)

The post-object 'được' order in (40b) derives as a result of (lexical) verb movement and object shift, i.e., the verb moves from V through Asp to v and the object raises from its merged position in [Spec, VP2] to [Spec, AspP], as schematized as follows:

---

[17] To see how the sentence-final modality marker 'được' in a strictly head-initial language like Vietnamese challenges the Universalist constraints, the readers are referred to Duffield (1999).

(41)

```
              VP1
           /        \
        tôi          V'
                  /      \
                 v        AspP
                /  \     /      \
             lái  (xe) Asp'
                      /        \
                   Asp          VP₂
                    |         /      \
                  được    (xe này)    V'
                             |      /    \
                             y   √V
```
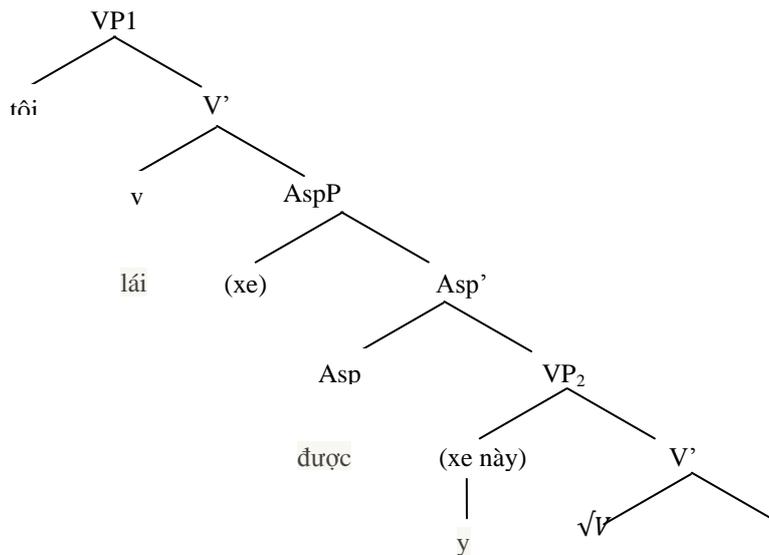
(Duffield
1999:118)

As can be seen from the above tree, the aspectual 'được' in Vietnamese provides an example to illustrate Travis (2010)'s proposal that there is an aspectual head inside theVP shell. However, Duffield does not give any further supporting evidence to argue for the existence or the projection of this VP-internal aspectual head in Vietnamese.

b. Fukuda (2007)

Following Duffield's (1999) account, Fukuda (2007) takes a further step on the analysis of the syntax of telicity in Vietnamese. What is contributional in Fukuda's accounts is his attention to the relationship between the verb and the telic particles. Structurally, telic particles are argued to dominate VP for interpretationally they add telicity to atelic events, as seen in (42):

(42) a. 'Lan tìm   hai quyển sách.'
              search   two CLS   book
         'Lan looked for two books.'

      b. 'Lan tìm   **ra** hai quyển sách.'
              search out   two CLS book
         'Lan found two books.'   (Fukuda's examples 2007:109)

Semantically, the verb and the telic particles take part in different relationship with the direct object. The object is the complement of the verb, but not of the particle. As seen in (42b), the particle 'ra' (out) says nothing about the state of the object 'hai quyển sách' (two books).

To account for this relationship, Fukuda proposes that telic particles occupy an XP projection above VP, and the word order stems from the raising of the main verb to a functional projection higher than the position of telic particles:

(43)   [ᵥₚ   V:+ Y [ᵥₚ   T-PART [ᵥₚ V: NP]]]

Furthermore, Fukuda clearly indicates that the XP projection is Inner Aspect, following Travis's 2010:

(44)
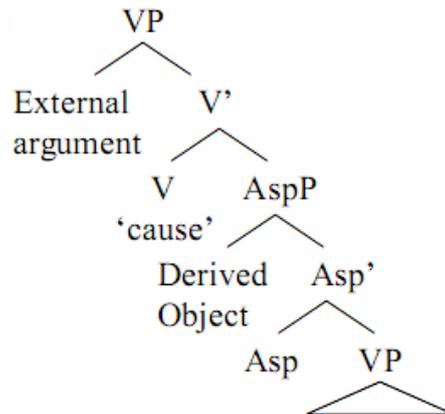
(Fukuda 2007:117)

However, his account, as Fukuda admitted himself, faces a problem of how the main verb moves from V to v via Asp if telic particles are assumed to be base generated in Asp as it violates the head movement constraints (Travis 1984). We will provide a tentative answer to this difficulty later on in chapter 5.

Fukuda also attempts to provide an initial account of the word order alternations between telic particles and objects: some bare NPs and quantized NPs can go before or after telic particles, as illustrated in (45):

(45) a. Tân [ᵥₚtạoᵢ [ₓₚ[nhiều vấn đề]ⱼ[AspP**ra** [ᵥₚ tᵢ tj]]]]
               create   many problem   out

      b. Tân [ᵥₚ tạoᵢ [AspP[**ra** [ᵥₚ tᵢ[nhiều vấn đề]]]]]
               create   out   many problem
        'Tân created many problems.'
                              (Fukuda 2007: 119)

In his analysis, the object–telic particle order is derived when the object raises out of the VP, while the object stays put inside the VP resulting in telic particle-object order.

However, which factors are responsible for the choice of object position is not reported in his paper. It is argued in Phan (2013) that word order alternations in Vietnamese is greatly determined by different factors, such as aspectual class of the predicate, specificity, as well as the news value of the DP object. Nevertheless, Fukuda's paper still serves as a good starting point for our discussion.

To conclude, although the idea that post-verbal telic markers occupy a VP-internal functional head, namely Inner Aspect, in the syntactic structure has been previously proposed, supporting pieces of evidence have not been thoroughly provided. Any comprehensive studies of these constructions have to take into account the complicated

relationship between the verb and the particle, specifically (a) their integrity (i.e., together they construct one single core event of the predicate), (b) their independence (i.e., they have different relatedness to the direct object), and (c) their hierarchy (i.e., the telic particles head a projection above VP) while still having to obey syntactic constraints. My work, therefore, attempts to more clearly illustrate syntactic representation of Inner aspect in Vietnamese by taking into account a much wider range of empirical data.

Chapter 4: The realisation of Vietnamese Outer Aspect

4.1 Introduction

The main purpose of this thesis is to show that Aspect in Vietnamese is realized independently of Tense, as a set of autonomous functional categories. Furthermore, I argue for the separation of two aspectual domains: a VP-external Outer Aspect projection and a VP-internal Inner Aspect projection. To the extent that my argument is convincing, it provides additional empirical support for the analysis proposed by Travis (2010) on the basis of Western Malayo-Polynesian languages.[1]

In light of the general discussion of theoretical assumptions in chapter 2, I first turn to examine the realisation of Outer Aspect in Vietnamese.

In previous work, Outer Aspect has not been clearly distinguished from Tense. Crucially influenced by Western European linguistics, Vietnamese traditional grammars analyse all the preverbal morphemes as TENSE markers: *đã* is usually assumed to be the past tense marker, *sẽ-* the future tense marker and *đang-* the present tense marker (see Thompson 1965, Nguyễn Minh Thuyết 1995, Nguyễn Đình Hoà 1997, Panfilov 2002, Nguyễn Văn Thành 2003). Even in some recent generative work, for instance, in Duffield (1999, 2007),[2] both of the preverbal elements 'đã' and 'sẽ' are placed under the same T node, and glossed as future tense, past tense markers respectively:

(1)   a. 'Tôi (**sẽ**) cẩn thận (***sẽ**) viết   lá   thư   này.'
          1s   **FUT** carefully **FUT** write   CLS letter DEM
          'I will write this letter carefully.'

      b. 'Anh   ấy   (**đã**) cẩn thận (***đã**) đọc   quyển sách này.'
           3S   DEM   **PAST** carefully **PAST** read   CLS book DEM
          'He read the book carefully.'
                        (These examples are taken directly from Duffield 1999:97)[3]

---

[1] See Guéron (2008) for more supporting evidence from English and Russian, though in a different framework, for the independency of two aspectual systems, namely perfectivity and telicity.

[2] See chapter 3 for detailed discussion.

[3] The gloss is kept the same as in the original paper.

Recently, Trần Thuần (2009) proposes the template of a Vietnamese sentence as in (2).

(2)   Topic-Subject-Tense/Aspect   particle-Negation-Modal   verb-Main   verb-Object-
        Adverb- Final particle (Trần Thuần 2009)

Again, in this account, tense and aspect are fused together as a single node. Consequently, both 'sẽ' and 'đã' are glossed indistinctly as all aspect markers in Bruening & Tran 2006:[4]

(3)   a. '* Tân sẽ   chụp hình   con   hổ đã   dọa ai?'
                ASP catch picture   CLS tiger **ASP** scare who
            'Tan will take a photo of the tiger that scared who?'

        b. 'Tân vừa chụp hình   con hổ **đã** dọa ai   thế?'
                ASP catch picture   CLS tiger **ASP** scare who PRT
            'Tan took a photo of the tiger that scared who?'
                    (These examples are taken directly from Bruening & Tran 2006:326)

The proposal of this section is that the three preverbal markers 'đã', 'đang' and 'sẽ' do not form a natural class as usually held, but are exponents of (at least) two different categories: Tense and Outer Aspect. Semantic and syntactic differences between the three markers will be presented as arguments that Tense and Outer Aspect exist independent of each other in Vietnamese, and that Outer Aspect has syntactic identity and distribution of its own in Vietnamese just as it does in other languages.[5]

4.2 Interpretive independence of 'đã', 'đang' and 'sẽ'

Interpretively, 'đang', 'sẽ' and 'đã' crucially differ from one another in that while 'đang' is purely aspectual, 'sẽ' is essentially temporal; 'đã', on the other hand, is a mixture of temporal and aspectual meanings (in the sense of Klein's 1994).[6] Let us unpack each of these claims in turn.

4.2.1 'Đang' is purely aspectual

Đang is used where it is necessary to stress that the situation is on-going. Typically, it appears in the utterance which has a present-tense like interpretation:

(4)   Tôi **đang** làm việc   nhà
        1s   DUR do   work house
        'I am doing housework.'

---

[4] As the thesis proceeds, we will see that Trần Thuần (2009) is clearly mistaken to put both tense and aspect higher than Negation in the clause structure. It will be argued that it is Negation that teases apart the two categories: Tense appears higher than Negation; whereas Aspect apparently projects lower than Negation in the structure.

[5] The existence of Outer Aspect Phrase can be found cross-linguistically, for instance, in English (Borer 2005), in Russian (Nossalik 2009), in Basque (Cheng & Demirdache 1993), in Irish (Hendrick 1991), etc.

[6] See chapter 2 for Klein's definition of Tense and Aspect.

Based on this intuition, many traditional studies classify 'đang' as a marker of the present tense. Closer scrutiny, however, suggests that this classification is unwarranted.

First, 'đang' is not only confined to the present context, but is also found in past and future settings, as illustrated in (5):

(5)   a.   Lúc   đó,   họ **đang** chơi quần vợt
             When DEM   3P DUR   play tennis
             'At that time, they were playing tennis.'

       b.   Sang năm, vào ngày này, chắc tôi **đang** làm ở   Pháp.
            Enter year, in   day DEM,   sure 1s DUR work in France
            'By this time next year, I will be working in France.'

Second, like other typical aspect markers, 'đang' is sensitive to the lexical semantics of the predicate. Specifically, 'đang' is not compatible with true achievements that have no temporal duration:

(6)   a. ?? Andy Murray **đang** đoạt giải   Achievement
                       DUR   win award
         ??'Andy Murray is/was winning the award.'

       b. Ngoài đường trời **đang** sáng   State
         Out   road sky DUR bright
         'It is/was bright out there.'

       c. Tàu **đang**   chạy   Activity
         Train DUR   run
         'The train is/was running.'

       d. Nó   **đang** viết bài ở văn phòng   Accomplishment
          3s   DUR write paper   at office
         'He is/was writing a paper at the office.'

In all of these sentences, 'đang' serves as a marker of in-progress or on-going situations, not as an obligatory means of expressing the present tense as traditionally held. Now let us have a closer look at example (4), to see what the contribution of 'đang' really is. Compare (4)—repeated here as (7a), for convenience—with (7b), in which 'đang' is omitted:

(7)   a.   Tôi **đang** làm việc   nhà
            1s   DUR do work house
            'I am/was/will be doing the housework.'

       b.   Tôi làm việc nhà
             1s do work house
             'I do the housework.'

Example (7a) is felicitous in a situation where the subject is temporarily occupied with the housework and cannot go out for dinner at the relevant time, which can be either at the present, in the past or in the future. Example (7b) is used in a situation where the subject's

duty is to be in charge of the housework in her family, while her husband is in charge of making money. Therefore, in the presence of 'đang', the activity of the subject doing the housework is not considered as a habitual activity, but only a temporary situation. This is just like the English present simple vs. progressive contrast.

This function of 'đang' is exemplified more clearly by the following minimal pair.

(8)   a. Tôi sống ở   Sài Gòn.
           1S   live PREP
           'I live in Sài Gòn.'

      b. Tôi **đang** sống ở   Sài Gòn.
           1S   DUR live PREP
           'I am living in Sài Gòn.'

Both (8a) and (8b) describe situations of the present tense. What 'đang' contributes to the meaning of (8b) is the information that the situation of the speaker living in Sài Gòn is temporary, not habitual as in (8a) where "đang" is absent. The above contrast is again identical in English. What is responsible for the present-tense reading of the sentence is perhaps the stative nature of the predicate. Compare (8a) to (9) where the temporal interpretation is switched to the past tense, which is crucially due to a change of predicate type:[7]

(9)   Tôi   gặp anh ở   Sài Gòn.
        1s   meet 3s PREP
        'I met him in Sài Gòn.'

In brief, the examples above all show that the most consistent property of 'đang' in all of its occurrences is that it makes visible only a subinterval of the situation. Re-phrased in Klein's terminology, 'đang' asserts that the topic time is included in the situation time. Therefore, it is more like a marker of durative aspect[8] than a 'present tense marker'.

4.2.2 'Sẽ' is essentially temporal

The future reading of 'sẽ' is the least controversial issue among Vietnamese linguists. For the most part, *sẽ* appears in future-denoting sentences and requires that the situation under consideration occurs after the utterance time:

(10) a. Tháng sau Linh **sẽ**   đi Pháp.
          Month after   FUT go France
          'Next month, Linh will go to France.'

Note that 'sẽ' can be omitted in the above sentence without affecting the future interpretation of the whole sentence. Compare (10) and (11):

---

[7] See Trần Thuần (2009) for further discussion of how the stative vs. eventive distinction affects the temporal interpretation of the sentence in Vietnamese. Also, see Iatridou (2000), Gennari (2003), Van de Vate (2011) for a similar effect crosslinguistically.

[8] Note that 'đang' is better glossed as DURATIVE, rather than PROGRESSIVE, for 'đang', unlike typical progressive aspect markers, is compatible with stative verbs as well. See chapter 2 for further discussion.

(11)   Tháng   sau Linh   đi Pháp.
         Month after   go France
         'Next month, Linh will go to France.'

In (11), in the absence of 'sẽ', the temporal adverb 'next month' itself suffices to locate the described situation in the future. Based on examples like this one, it is sometimes claimed that 'sẽ' is not a future tense marker (see Cao 2003).

However, this claim is far from accurate, for we can easily find cases in which the presence of temporal adverbs is not sufficient. For instance, as convincingly pointed out by Nguyễn Minh Thuyết (1995) [9], some cognitive predicates such as 'biết' (know), 'thấy' (feel), 'yêu' (love), 'ghét' (hate), obligatorily require the co-occurrence of 'sẽ' even in the presence of the temporal adverb 'tomorrow':

(12) a. *Đừng lo, ngày mai   anh thấy khoẻ hơn nhiều.
         NEG.IMP worry, tomorrow   PRN feel good more much
         'Don't worry, you will feel much better tomorrow.'

      b. Đừng lo, ngày mai   anh **sẽ** thấy khoẻ hơn nhiều.
         NEG.IMP worry, tomorrow   PRN FUT feel good more much
         'Don't worry, you will feel much better tomorrow.'

That is to say, it is 'sẽ' that is undeniably responsible for anchoring the situation in the future time.

Nevertheless, it should be acknowledged that 'sẽ' does not always indicate absolute future tense. 'Sẽ' can also appear felicitously in past contexts with future reference:

(13) Đầu năm ngoái anh định   cuối năm **sẽ** sửa lại   nhà, nhưng rồi không được.
      head year last 3S   intend end year FUT fix again house, but   then NEG obtain
      'Early last year, he intended by the end of the year to refurbish the house, but did not succeed.'

It is sometimes argued that 'sẽ' is a modal verb (see Cao 2003) for 'sẽ' can occur in irrealis contexts:[10]

(14) Nếu trở thành triệu phú, tôi   **sẽ**   đi du lịch vòng quanh thế giới.
      If   become millionaire, 1S FUT go travel   around   world
      'If I were a millionaire, I would travel all around the world.'

Syntactic evidence, however, indicates that 'sẽ' is not a modal marker. On one hand, 'sẽ' is not in complementary distribution with modals (as shown in 15a). Moreover, whereas 'sẽ' always precedes sentential negation, modals must follow negation as in (15b):

---

[9] See Nguyễn Minh Thuyết (1995) for detail.
[10] The additional use of 'sẽ' as an irrealis marker will not be dealt with here, though it too can be accommodated within the time-relational framework of Klein. See Mezhevich (2008) for the extension of Klein's theory to mood.

(15) a. Tháng sau   Linh **sẽ   phải**   đi Pháp.
        Month after   FUT MODAL   go France
        'Linh will have to go to France next month.'

     b. Tháng sau Linh   **sẽ không phải**   đi Pháp
        Month after   FUT NEG MODAL   go France
        'Linh will not have to go to France next month.'

This suggests that 'sẽ' is projected higher than modals in the clause structure.
Overall, what remains consistent across all these examples is that 'sẽ' is always tense-related, in that it marks the relative futurity of one event or state-of-affairs relative to another. Crucially, whatever else it expresses, 'sẽ' never signals an aspectual contrast, as evidenced by the fact that 'sẽ' does not show any sensitivity to the predicate type (as a typical aspectual marker should do).

(16) a. Andy Murray **sẽ**   đoạt giải   Achievement
              FUT win award
         'Andy Murray will win the award.'

      b. Ngoài đường trời **sẽ** sáng   State
          Out road sky FUT bright
          'It will get bright out there.'

      c. Tàu **sẽ**   chạy   Activity
         Train FUT run
         'The train will depart.'

      d. Nó   **sẽ** viết bài   ở văn phòng   Accomplishment
         PRN FUT write paper at office
         'He will write a paper at the office.'

The examples in (16) reinforce the point that 'sẽ' always designates futurity no matter what the predicate type of the sentence is. Given its syntactic and semantic behaviour, 'sẽ' is the only preverbal element that is a direct manifestation of TP.

4.2.3 'Đã' is a temporal-aspectual mixture[11]

Among the three elements, 'đã' is the most complicated one.

The first point to emphasise is that 'đã' is not an absolute tense marker, for it can occur in unambiguously non-past contexts: in present, future (perfect), and imperatives, all of which are incompatible with preterite morphemes in more familiar languages.

(17) a. **Đã** đến giờ   đi ngủ rồi   con
         ANT come hour go sleep already child
         'It's time to go to sleep.'

---

[11] This section was partially presented in Duffield & Phan (2010)

    b. Hai năm nữa anh về,   em **đã**   đi lấy   chồng   rồi.
        Two year more 2s return, 1s ANT go marry husband already
        'When you come back 2 years later, I will already be married.'

    c. Nghỉ **đã**   rồi hãy làm[12]
        Rest ANT then IMP work
        'Rest and then work.'

These examples show that unlike normal tense markers, what *đã* provides is not a perspective located in the past. Properly speaking, in all cases, even in present and future contexts, the contribution of 'đã' is to indicate that the situation marked by *đã* has commenced prior to a point of reference, which is the utterance time unless the context says otherwise. For instance, the time when the child has to go to bed is actually anterior to the time at which the mother utters (17a); the girl's getting married takes place before the boy's coming back in (17b); the activity of 'resting' should be done prior to the activity of 'working' in (17c).

The second thing to point out is that what makes 'đã' deserve a special status among the three markers is the fact that unlike 'sẽ', the interpretation of 'đã' is conditioned by the Aktionart of the verbal predicate it modifies.[13]

'Đã' can indicate inchoativity (i.e. the event has started and has not terminated) or termination (i.e. the event has taken place and terminated without having reached its final end point), or completion (i.e. the event must have obtained its final result) depending on what type of verb phrase it co-occurs. Let us consider the behaviour of 'đã' with different types of predicates in details.

a. Achievements and 'đã'

'Đã' only emphasizes the completion of the action when it combines with punctual dynamic verbs, as shown in (18a). Applying Klein's notions of Situation Time, Topic Time and Utterance Time, (18a) can be diagrammed as in (18b):

(18) a. Andy Murray **đã** đoạt giải.
                    ANT win award
        ' Andy Murray has won the award.'

    b.   ¬p   [$_p$+++]
             TSit wholly included in TT, TT< TU
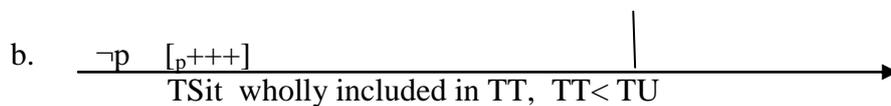
⟶   represents the time axis, | represents the utterance time, +++++ represents the situation time, TSit$_i$ represents the initial stage of the situation time, TSit$_f$ represents the

---

[12] In imperative contexts, 'đã' is found in a post-verbal position. Whether this involves verb movement across 'đã' or simply a case of multifunctionality is an interesting point, but clearly goes beyond the scope of the current study.

[13] Such interactions between aspectual morphemes and the inherent lexical meanings of the predicate are not surprising from cross-linguistic point of view. See Li & Shirai (2000) for further evidence from Chinese, English and Japanese.

final part of the situation time, [ ] represents the topic time, ¬p means the opposite situation is held true before.

(19)   Andy Murray đoạt giải
                          win   award
            'Andy Murray won the award.'

Example (18) indicates that the winning of Andy Murray has been realized before the default utterance time, with an additional implication that Andy Murray's winning the award did not take place previously. There is no such implication in the absence of 'đã', hence, example (19) simply describes an actual past event of Andy Murray winning the award.

Given that the verb 'win' is punctual, the initial boundary is also the final boundary. The entire TSit, therefore, is placed before TU, and for this reason (18) obtains the completive reading. That is to say, with achievements, the completive reading of the sentence does not come from the marker 'đã' itself, but from the inherent content of the verb 'win'. As shown below, when preceding other non-punctual predicates, 'đã', in fact, does not give rise to the completive interpretation of the situation.

b. States and 'đã'

In contrast to the case of achievement verbs above, when 'đã' precedes stative verbs, it designates an inchoative interpretation. In (20), 'đã' signals that the state of it being bright in the sky has begun before the default utterance time and also activates a presupposition that the opposite state of the current state (i.e. the sky being not bright) holds at an earlier time as diagrammed in (20b). No such implication is obtained in the absence of 'đã' (compare to (20a), (21) simply indicates the current state of the sky being bright without referring to when it actually begins):

(20) a. 'Ngoài đường trời **đã** sáng.'
              Out road   sky ANT bright
          'It got bright out there'.
                                      (Example of (Trần, K.P. 2008:73))

      b.   ¬p   [$_p$+++]+++++++++++++++++++++++ |
                        TSit$_i$ included in TT,   TT< TU
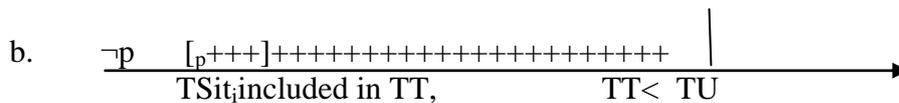
(21) Ngoài đường trời sáng.
          Out road sky bright
      'It is bright out there'.

As can be seen from the diagram in (20b), 'đã' only makes claim about the initial stage of the situation and leaves open the final boundary of the situation (there is no indication of when the sky being bright will come to an end).

The inchoativity interpretation resulting from the combination between the aspectual marker and stative verbs is also found in many other languages such as Ancient Greek, Spanish, Russian and Mandarin Chinese just to name a few (Comrie 1976, Vlach 1981,

Mittwoch 1988, Portner 2011). For instance, in Spanish the simple past (perfective past) of the verb *conocer* (know) indicates the start of a new situation:

(22)   'conoci a Pedro hace muchos años.'
        'I got to know Pedro many years ago.' (Comrie 1976:19)

Also in Mandarin Chinese, 'le' signals the inception of a new state:

(23)   'ta gao-le.'
        'He became tall.' (Comrie 1976:20)

The point, however, is that in Vietnamese the inchoativity interpretation of 'đã', as examined below, is not only restricted to the stative verbs.

c. Activities and 'đã'

Similar to the case of states, 'đã' co-occurs with activity predicates to assert the inception of a state of affairs:

(24) a. Tàu   **đã** chạy.
        Train ANT run
        'The train has departed.'

     b.   ¬p [p+++]++++++++++++++++++++++++
           TSit$_i$included in TT,   TT   <   TU
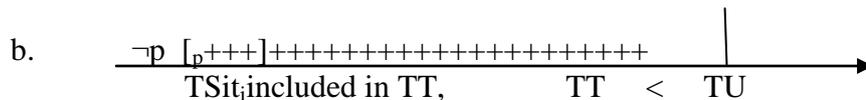
(25) Tàu chạy
     Train run
     'Trains run.' (vs. Airplanes fly).

In the absence of 'đã', the sentence in (25) yields a generic reading: it talks about trains in general. The presence of 'đã' in (24) actualises a specific event, that is, it only describes a particular train. In addition, 'đã' in (24) implies a transition from ¬p to p, that is, the train has now run but there was a prior time when it did not.

What is more, although the action denoted by 'đã' sentence may be interpreted as terminated in a given context, 'đã' does not necessarily entail termination. If we compare the two sentences, none of these combinations lead to contradiction:

(26) a. Tàu   **đã** chạy rồi   mà giờ nó   lại dừng.
         Train ANT run already but now 3s again stop
         'The train has already departed, but it has now stopped.'

     b. Tàu   **đã** chạy rồi   và giờ   nó vẫn chưa dừng.
         Train ANT run already and now   3s still NEG stop
         'The train has already departed, and hasn't stopped yet.'

Given that the action indicated by 'đã' may or may be not terminated, 'đã' does not really highlight the end point of the situation; its assertion scope is only confined to the initial

boundary of the situation. As a result, 'đã' is unsurprisingly found to co-occur with the progressive morpheme 'đang':[14]

(27) Lúc tôi đến, cả bọn   **đã đang** đánh chén rồi.
       When 1s arrive, all group ANT DUR hit dish   already.
       'When I arrived, all of them had been eating.'

'Đã' and 'đang' are semantically compatible: given 'đã' draws the initial boundary of the event (without regard to the internal stages), while 'đang' is only concerned with the internal stages of the event (without paying attention to the boundaries).

d. Accomplishments and 'đã'

When 'đã' precedes some accomplishment predicates, it once again signifies that the event has occurred and stopped at some point:

(28) a. Nó   **đã** viết bài ở văn phòng
         3s ANT write paper   at office
         'He wrote a paper at the office. '

     b.   [+++]++++++++++++++++++++++
           TSit₍included in TT,   TT< TU
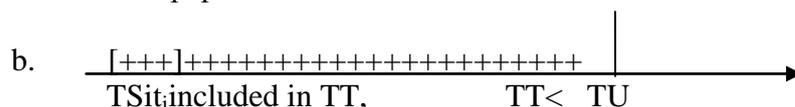
(29)   Nó viết bài ở văn phòng
         3s write paper   at office
         'He wrote/will write/writes (a) paper at the office.'

Without 'đã', the event in (29) can be freely located either in the past or in the future, or can even be interpreted as a habitual event. In the presence of 'đã', the event is fixed in the timeline, 'đã' specifies that the event has started, but once again it does not signal the completion of the event, since the endpoint can be cancelled:

(30)   Nó   **đã** viết bài   ở văn phòng   nhưng vẫn chưa xong
         PRN ANT write paper   at office   but   still NEG finish
         'He wrote a paper at the office but he hasn't finished it yet. '

As the presence of 'đã' alone does not guarantee the completion of the event, in order to express that the event has reached its final end point, a telic particle 'xong' or a quantified direct object must be added to the sentence:

(31) a. Nó   **đã** viết **xong** bài   ở văn phòng (*nhưng vẫn chưa xong)
         3s   ANT write finish paper   at office   but   still NEG finish
         'He has finished writing a paper at the office (*but he hasn't finish it)'.

---

[14] Mittwoch (1988) notes that the perfect progressive form for accomplishments in English also entails that the end-point has not been reached. For instance,
       (i)   'Who has been eating my porridge?'
implies that some of the porridge is not used up (Mittwoch 1988:236). See Portner (2011) also for different factors that determine the continuative perfect reading such as the durative adverbials and the lexical content of the predicate.

    b.　Nó　**đã**　viết hai bài　ở văn phòng (*nhưng vẫn chưa xong hai bài đó).
       3S　ANT write two paper　at office　　　but still NEG finish two paper DEM
    'He wrote two papers at the office (*but he hasn't finish them yet)'.

    c.　 [++++++++]
        TSit wholly included in TT,　　TT < TU
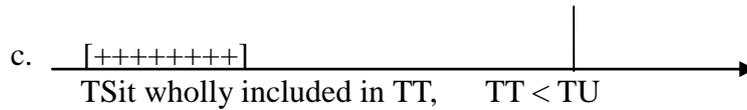
As diagramed in (31c), with the contribution of both 'đã' and the telic particle 'xong' (or the quantified direct object), the entire situation, which consists of both initial and final boundaries, is fully located prior to TU, therefore is construed as completed.

To recap, two things can be drawn from above examples:

First, 'đã' is clearly aspectual, but not perfective. What is actually asserted by the speaker with 'đã' is not the whole situation time but only the initial subinterval of the situation. As long as its initial stage starts, whether the final result obtains or not is left vague. In this sense, 'đã' has imperfective component (TT included in TSit) in its meaning. This is interesting but has not been explicitly pointed out in any previous treatments of 'đã' to my knowledge.

Second, since the interpretation of 'đã' is sensitive to the lexical content of the predicate, it is of importance to separate out the contribution of the lexical content of the predicate and that of 'đã' to the aspectual construal of the whole sentence. As shown above, 'đã' can signal different readings: purely past tense, perfect of result, existential perfect or continuative imperfective. These different readings, however, stem from the lexical content of the predicate rather than from that of the marker 'đã' itself.[15] This also means that none of these readings are the core and actual meaning of 'đã'. Therefore, it raises another question of what the aspectual/temporal contribution of 'đã' really is.

In order to point out the inherent meaning of 'đã', one has to look at the similarity in all cases of its occurrence. No matter what time frame or the verb types it occurs with, 'đã' always requires that the situation described starts before the default speech time. To put this formally, 'đã' means that the time of the initial stages of a situation is included within the topic time, which in turn is prior to the utterance time. In other words, applying Klein's relational theory of tense and aspect, 'đã' is not purely aspectual nor simply a normal tense marker, but a composition of both tense and aspect: 'Đã' is aspectual as unlike 'sẽ', it does pick up the initial parts of the situation described by the sentence. 'Đã', in addition, is temporal in the sense that it also locates the initial parts of the situation prior to the default utterance time.

This claim is not novel cross-linguistically. Gennari (2001) argues that the Spanish imperfecto has two components in its meaning: the past temporal component and the imperfect component. Also, Van Hout (2008a) observes that Dutch Imperfect Past and Italian Imperfetto forms convey both tense and aspect meanings. Similarly, according to Jacqueline Gueron (p.c), the Russian imperfective past is a synthetic form which can either function as an imperfective past or as a past participle.[16]

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[15] See Iatridou et al (2003) for a similar statement about the interpretation of the perfect in English.
[16] See Lin (2005), Comrie (1976:9) for further supporting evidence from Chinese and Written Arabic, respectively.

For this, Vietnamese 'đã' is more similar to Spanish, Dutch, Italian, and Russian forms than to the English one. To conclude, 'đã' is a tense-aspect complex which basically means 'anterior'.[17]

This analysis of 'đã' not only allows us to capture naturally the intuitions in existing studies of 'đã' but also helps clarifying stretched and borderline usages of 'đã'.

It can be seen that the 'transition' (or 'change of state') meaning and the 'present continuative' (or 'current relevance') reading brought forward by Cao (2003) follow straightforwardly that 'đã' focuses on boundaries of the situation. Furthermore, the boundaries of a situation generally trigger presupposition of a 'prior negative state' (Michaelis 1996, Fong 2005, Soh and Kuo 2005, Soh 2009), give rise to the 'change of state' meaning of 'đã'. That 'đã' only pays attention to the initial boundary of the situation and leaves open its final boundary, gives rise to the inference that the situation may continue at the utterance time, hence the intuition about 'current relevance'.[18]

The analysis that considers precedence relation as the default meaning of 'đã' also sheds some light on extensive usages of 'đã' where it is clearly used non-temporally. 'Đã' carries a sense of 'more than is expected/desired/needed' when preceding quantifications:

(32) a. Bố tôi nghỉ hưu **đã** 1 năm rồi.
       Dad 1s retire ANT   year already
       'It is already one year since my dad retired.'

    b. Lão **đã**   ngoài 70.
        3s ANT   over
        'He is already over 70 years old.'

or a sense of 'sooner than expectation' when preceding a NP:

(33) Nó   **đã** tiến sỹ rồi   sao?
     3s   ANT PHD already PRT?
     'Is she already a PhD?'

or a sense of 'doing something prior to anything else' in imperatives:

(34) Ăn **đã** (rồi   hãy   làm)
     Eat ANT then   IMP   work
     'Let's eat first (and then work).'

or a relationship between 'given' and 'new' information:

(35) a. Mai **đã** giỏi lại   còn xinh nữa.
         ANT clever again still pretty more
         'Mai is not only clever, she is pretty too.'

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[17] The claim that the morpheme 'đã' carries both tense and aspect components in its meaning is an important point to make as it differentiates the current study from previous analyses of 'đã' in the literature.
[18] Contra Cao (2003), I consider the current relevance effect as what is implied, not what is asserted by 'đã'. That is to say, while Cao (2003) is mostly concerned with what 'đã' constributes to the presupposition and implication of the sentence, I on the other hand, more specifically focus on what in the semantics of 'đã' invariantly adds to the propositional meaning of the sentence.

b. Họ **đã** nghèo lại   còn đông con.
    3p   ANT poor again still many child
    'They are poor but still have many children.'

In all cases, 'đã' always implies a comparison, either between the current and the previous situation, or between the old and the new information, or simply between the expectation and the reality. Therefore, 'đã', in its purest form, is a marker of anteriority. As a result, in this thesis, 'đã' has been consistently glossed as 'anterior'.[19]

This idea is also shared by other researchers. For example, Thompson (1965) also glosses 'đã' as 'anterior', and further puts forward that:

''*đã* 'anterior' identifies an action or state at least the beginning of which precedes the basic time'

(Thompson 1965:209)

Likewise, Trần Kim Phượng (2008) claims that:

'Tính chất biểu thị một sự tình diễn ra *trước* mốc là cố hữu, là cơ bản, là nhất quán trong mọi trường hợp xuất hiện của *đã*'[20]

(Trần Kim Phượng 2008: 74)

That is to say, unlike those Western European languages which grammaticalise perfective vs. imperfective distinction which is basically focused on final boundaries, Vietnamese plays up different types of aspectual distinctions which are mainly concerned with anteriority and/or inchoativity.
To close this section, although these preverbal markers have their own semantic complexity, what remains clear is that by default, 'sẽ' is a tense marker, 'đang', an aspect marker; and 'đã', a tense-aspect marker. In the absence of these tense and aspect markers, the temporal interpretation of bare sentences is often left ambiguous (though it can be more precisely determined by other linguistic factors or by the extralinguistic context). In other words, it is these markers that are truly responsible for the anchoring of the situations in the time line.

The fact that 'đã', 'đang', 'sẽ' are interpretively distinct from one another are, however, not sufficient grounds for separating them in phrase structure, therefore in the following section, it will be further demonstrated that they are also syntactically independent.

4.3 Syntactic independence of 'đã', 'đang', 'sẽ'.

From formal syntactic point of view, we propose that the three markers 'đang', 'sẽ' and 'đã' are also structurally different: while 'đang' is base-generated in Asp, i.e., in the lowest

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[19] Note that anteriority is also considered as the basic requirement of the perfect in other works (see Shi 1990, Musan 2001 for evidence from Chinese, and German, respectively).
[20] Representing a situation that takes place *anterior to* a reference time is the inherent, basic, and consistent meaning in all cases of occurrence of 'đã' (translation mine).

position among the three, 'sẽ' is base generated in T, i.e., in the highest position among the three; 'đã', on the other hand, is initially merged in Asp, and then gets to T by movement if no interveners come along.

(36)
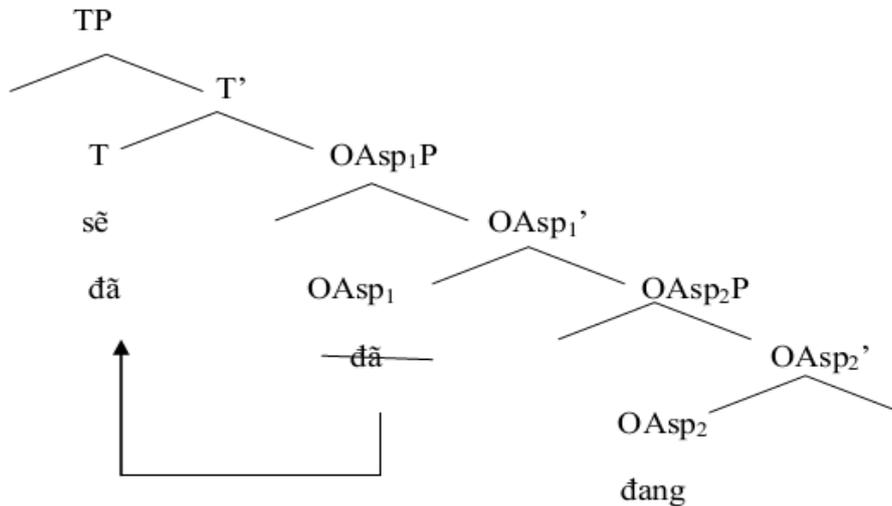
Supporting evidence for each part of the above claim will be provided respectively.

4.3.1 'Đang' is base generated in the lowest position among the three markers

The first piece of evidence comes from the fact that when the three elements co-occur, 'đang' always stays lowest, i.e., 'đang' can never precede 'sẽ' or 'đã':

(37) a. Bằng giờ này ngày mai tôi **sẽ đang** tắm nắng ở Hawaii.
By hour DEM tomorrow 1s FUT ANT bath sun PREP
'By this time tomorrow I will be taking a sunbath in Hawaii.'

b. *Bằng giờ này ngày mai, tôi **đang sẽ** tắm nắng ở Hawaii
By hour DEM tomorrow 1s DUR FUT bath sun PREP
'By this time tomorrow I will be taking a sunbath in Hawaii.'

(38) a. Bằng giờ này ngày mai tôi **đã đang** tắm nắng ở Hawaii rồi.
By hour DEM tomorrow 1s ANT DUR bath sun PREP already
'By this time tomorrow I will have sunbathed in Hawaii.'

b. *Bằng giờ này ngày mai tôi **đang đã** tắm nắng ở Hawaii rồi.
By hour DEM tomorrow 1s DUR ANT bath sun PREP already
'By this time tomorrow I will have sunbathed in Hawaii.'

(39) a. Lúc tôi đến, nó **đã đang** ngủ rồi.
When I come, 3s ANT DUR sleep already
'When I came, he had been sleeping.'

  b. *Lúc tôi đến, nó **đang đã**   ngủ   rồi.
      When I come, 3S   DUR ANT sleep already
      'When I came, he had been sleeping.'

Two things can be drawn from the above examples.

Firstly, 'sẽ đang' is only compatible with future-referring adverbials (as in 37), while 'đã đang' can occur either in the future or in the past (as in 38, 39). Therefore, 'đã đang' is more aspectual-focused than 'sẽ đang'.[21]

Secondly, the strict ordering constraint between 'đã' and 'đang' in Vietnamese can also be found in many other languages, where PERF>PROG is the legitimate order, but PROG>PERF is not:[22]

(40) a.   'John has been writing a letter.'

      b. '* I am nearly having written/read this paper.' (English, Mittwoch 1988:238, 243)

(41)   'i tè po yirè ke-ko.'
        PRN FUT PERF PROG go
        'I will have been going.'   (Temne, Cinque 1999:193)
(42) 'shamu-ju-shka-ni.'
       come-PROG-PERF-PRN
       'I have been coming.'
                         (Imbabura Quechua, Cinque 1999:163)

This motivates the idea that OAsp can be further split into two independent nodes: PerfectP and ProgressiveP in which the latter must be projected lower than the former, as proposed by Demirdache &Uribe-Etxebarria 2007:

(43)

Perfect of a Progressive
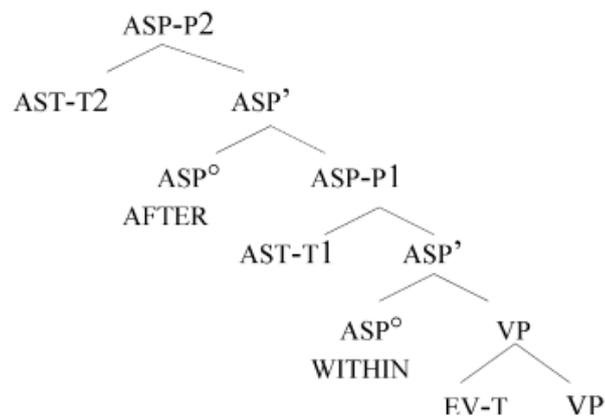
(Demirdache &Uribe-Etxebarria 2007:350)

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[21] Please note that 'sẽ' and 'đã' can never co-occur (i.e., *sẽ đã/ *đã sẽ) for the reason which will be discussed shortly.
[22] See Iatridou et al (2003) for similar observation in Greek and Bulgarian.

The low base-generated position of 'đang' relative to 'đã' and 'sẽ' is further supported by the fact that đang is the only element of the three TAM markers discussed so far that can appear to the right of both the aspectual adverbial element vừa ('just') and the sentential negation marker 'không'[23]. This is illustrated by the paradigms in (44) and (45), respectively:

(44) a. 'Người mà (**đang**)vừa (**đang**) ăn cơm vừa   xem   tivi đó'
          person   RM DUR just DUR eat rice just watching TV DEM
          'the person who was just eating dinner and watching TV'

      b. 'Người mà (**đã**) vừa *(**đã**) ăn cơm vừa   xem   tivi đó'
          person   RM ANT just ANT eat rice just watching TV DEM
          'the person who has just eaten dinner and watched TV'
                                                          (Examples of Duffield (in prep)

(45) a. Tôi   **đang không** ăn cơm.
          1S   DUR NEG eat rice
          'I am not having a meal.'

      b. Tôi   **không đang** ăn cơm.
          1S   NEG   DUR eat rice
          'I am not having a meal.'

      c. Tôi **đã   không** làm việc đó.
          1S   ANT NEG   do job DEM
          'I didn't do that.'

      d. *Tôi **không đã**   làm việc đó.
           1s   NEG ANT   do job DEM
          '*I (do) not have done that.'

      e. Tôi **sẽ   không** làm việc đó.
          1S   FUT   NEG   do job DEM
          '*I will not do that.'

      f. *Tôi **không sẽ**   làm việc đó.
           1s   NEG FUT   do   job DEM
          '*I not will do that.'

Moreover, 'đang' is able to permute even in the combination of 'đã' and 'sẽ':

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[23] As can be seen from the below examples, 'đang' can occur either in front of or following 'vừa' (just) and 'không' (neg). Please note that there are two different positions involve here, the former is a Tense node [+present], and the latter is an OAspect head [+durative].

(46) a. Hắn làm thế chứng tỏ lúc đó   chính   hắn   cũng **đã không đang** hài lòng về mình rồi.
     3s   do that prove   when DEM   EMPHASIS   3s   also ANT NEG DUR happy about self already
     'He acted like that, then he had not been happy with himself at that time.'

   b. Hắn làm thế chứng tỏ lúc đó   chính   hắn cũng **đã đang không** hài lòng về mình rồi.
      3s do that prove when DEM EMPHASIS 3s also ANT DUR NEG   happy about self already
     'He acted like that, then he had not been happy with himself at that time'

(47) a. Lúc đó   tôi **sẽ đang không** ăn cơm, mà lại đang làm việc   rồi cũng nên.
     When DEM 1S FUT   DUR NEG   eat rice, but again DUR do job already also should
      'By that time, I would not be having a meal, but might have already started work.'

   b. Lúc đó   tôi **sẽ không đang** ăn cơm, mà lại   đang làm việc rồi cũng nên.
      when DEM   1S FUT NEG DUR   eat rice, but again DUR do job   already also should
       'By that time, I would not be having a meal, but might have already started work.'

These examples show that 'đang' can fairly freely either precede or follow NEG.

This set of examples reveals an interesting parallel between English and Vietnamese. In English, when the auxiliary 'have' is inflected, it obligatorily precedes negation:

(48) a. He has not left early.

   b. * He not has left early.

However, when 'have' is uninflected, it can appear on either side of negation:

(49) a. He should not have left early.

   b. He should have not left early.

   c. To not have left early...

   d. To have not left early...

The free alternation, according to Ouhalla (1990), could be due to some stylistic rule applying at PF which has the effect of changing the base-generated order. Or alternatively, it can be suggested that negation is interpreted as constituent negation in (45a), (46a) in Vietnamese and in (49a, c) in English, but as sentential negation in (45b), (46b) in Vietnamese and in (49b, d) in English.[24] Whatever the explanation, it should be clear that

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[24] I thank Nigel Duffield for this suggestion.

in both languages purely aspectual auxiliaries may appear to the right of sentential negation, whereas auxiliaries that also bear some tense-related features must appear to the left of negation.

From those pieces of evidence, it is obvious that 'đang' is structurally lower than 'đã' and 'sẽ'.

4.3.2 'Sẽ' is base generated in the highest position among the three markers[25]

The next step is to show that between the two remaining elements, 'sẽ' is base generated in a position which is higher than the merged position of 'đã'. Our main argument to separate out the base position of 'đã' and 'sẽ' is that both 'đã' and 'sẽ' show interesting—and opposite—interactions with sentential negation: Aspectual 'đã' is incompatible with negative declarative contexts, while Future 'sẽ' is ejected from interrogative contexts.[26]

a. Aspectual 'đã' is excluded from negative declarative contexts

One of the most noteworthy properties of 'đã' concerns its interaction with the marker of sentential negation 'không'. Whereas normally 'đã' is ambiguous between a perfect and a preterite reading,[27] in contexts of sentential negation, 'đã' can only be interpreted as a preterite:

(50) a. 'Nó **đã** đi.'
         3S ANT go
         'He left.'
         OR: 'He has gone.'

     b. 'Nó **đã không** đi.'
         3S ANT NEG   go
           'He didn't go.'
  NOT: 'He hasn't gone yet.'   (Examples of Panfilov 2008)

'Sẽ', on the other hand, still preserves its futurity reading in the presence of negation:

(51) a. Nó **sẽ** đi
         3S FUT go
         'He will go.'

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[25] The findings of this section were previously presented in Duffield & Phan (2010).

[26] One implication of this analysis is that 'không' NEGATIVE and 'không' INTERROGATIVE are actually the same morpheme (see Duffield 2009a for detail).

[27] See Musan (2001) for a similar effect on the perfect morpheme in German. Also, see Cinque (2006) for more supporting evidence from Turkish. For instance, according to Cinque, the morpheme 'di' in Turkish is also systematically ambiguous between a preterite reading and a perfect reading:
     (i)   'Hasan baligi ye-di.'
            'Hasan ate the fish.'
     OR   'Hasan has eaten the fish.'   (Cinque 2006:184)

b. Nó **sẽ không** đi
   3S FUT NEG go
   'He won't go.'

(51b) points out that 'đã' loses its default aspectual reading in negative declaratives. We will come back to explain how and why this happens shortly. It suffices to say now that examples of negative declaratives apparently show that the interpretation of 'sẽ' is not affected by negation; while the meaning of 'đã' is clearly subject to the presence or absence of negation. This suggests that 'sẽ' is not within the c-commanding domain of negation, while 'đã' is. Therefore, 'sẽ' is base-generated in a higher position than 'đã'. This claim will be further confirmed by another piece of evidence when we look at collocation in interrogative contexts in the following section.

b. Future 'sẽ' is excluded from interrogative contexts

There are two kinds of Yes-No questions in Vietnamese: the first kind is formed by the combination of the assertion morpheme 'có' and the negator 'không', whereas the second is formed by the collocation of the anterior morpheme 'đã' and the negator 'chưa', as in (52a) and (52b). While 'đã' is a significant part of interrogative sentences, 'sẽ' is found unacceptable in this context, illustrated by the ungrammaticality of (52c):

(52) a. 'Chị **có** mua (cái) nhà **không**?'
       2S ASR buy CLS house NEG?
       'Did you [elder sister] buy (the) house?'

   b. 'Con **đã** uống thuốc **chưa**?'
      2S ANT drink medicine NEG$_{PERF}$
      'Have you [child] taken your medicine yet?'

   c. '*Vợ anh **sẽ** (có) làm việc ở Paris **không**?'[28]
      Wife 2S FUT ASR work PREP NEG?
      'Will your wife work in Paris?'   (Examples of Duffield 2009a:19)

Adopting Kaynian asymmetry (Kayne 1995), Duffield (2009a) argues controversially that the final 'không' is not final underlyingly. In questions like (52), 'không' occupies the same underlying position as the sentence-medial negative 'không', i.e., it still heads the NegationP. The surface word order in (52a) is derived because the thematic subject 'chị' must undergo raising out of the verb-phrase into the [spec, EP] before the whole derived complement 'chị có mua cái nhà' raises to [spec, Neg]:

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[28] The well-formed way to express a future interrogative question is by adding a question particle sentence-finally, as follows:
     (i)Vợ anh **sẽ** làm việc ở Paris **chứ**?
     Wife 2S FUT do job LOC PRT.Q
     'Will your wife work in Paris?'
However, this kind of particle questions are shown to differentiate syntactically and semantically from the type of Yes-No questions (see Trinh 2005:31 for detail), and therefore are excluded in our study.

(53)
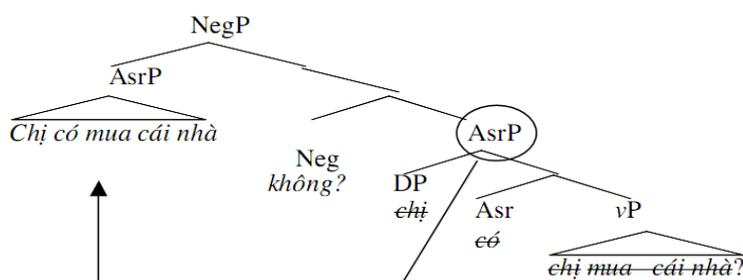
(Duffield 2009a:20)

The theory-internal motivation for the predicate-raising has something to do with scope. Multifunctional elements within the scope of negation are ambiguous, for instance:

(54) Anh không biết ai
      2S   NEG know AI
      'You don't know anyone.' OR 'Whom don't you know.'

In Yes-No questions, the predicate phrase headed by 'có' is multifunctional in the sense that it also has +Q interpretation, in addition to its assertive interpretation. To disambiguate the two possible readings, the predicate phrase must move outside of the scope of negator 'không', so that the Q-features on the phrase is checked overtly (by predicate-raising).

The same line of analysis can be applied to 'đã … chưa' questions, as in (55), in which 'đã' is inserted under Asp, and interpreted aspectually:

(55)
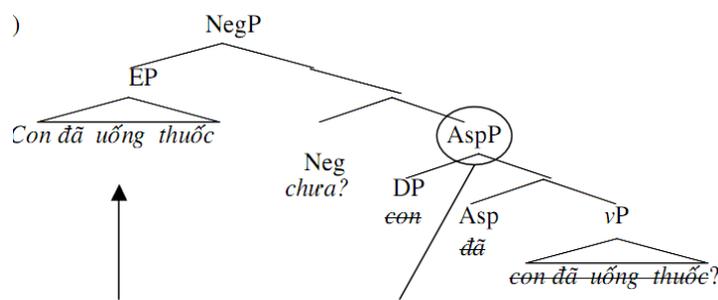
What makes Duffield's predicate-raising analysis of Yes-No Questions specially relevant to the discussion is its consequence. Given that Yes-No questions only relate to functional categories that are base-generated lower than the projection headed by 'không', tense-related elements like 'sẽ' cannot be merged into the structure (as shown in 52c). Since 'đã' can perfectly occur in this context, 'đã' (unlike 'sẽ') cannot be a T-related element initially (as illustrated in 52b).

Another supporting evidence for the higher position of 'sẽ' in relation to 'đã' and 'đang' comes from their interaction with modal markers. Modal can either precede or follow 'đã' and 'đang', but modal obligatorily follows 'sẽ':

(56) a. Nó **đã phải**   chịu đựng quá nhiều ở đó rồi.
         3S ANT MODAL   suffer   too much at there already
         'He had to suffere too much in there.'

b. "Để làm được điều   này máy điện thoại của anh em   **phải đã** được jailbreak trước".[29]
PREP do obtain thing DEM CLS   phone POSS 2S 2S   MODAL ANT PASS   jailbreak before
'In order to do that, your cellphones have to be jailbroken before.'

c. Có   rất   nhiều vấn   đề mà   trái đất **đang phải**   đối mặt.
have very many problem RM CLS earth   DUR MODAL   face
'There are many problems that the earth has to face'.

d. "Quanh ta vẫn còn rất nhiều trẻ em **phải đang** chống chọi với   cơn đau hàng giờ, hàng ngày".[30]
Around 1P still exist very many children have.to DUR fight PREP CLS pain every hour every day
'There are still many children who have to be fighting with their pain every hour every day around us.'

e. Em **sẽ**   **phải**   quên   anh đi.
2S FUT   MODAL forget   1S   PRT
'You will have to forget me.'

f. *Hai năm nữa   em   **phải**   **sẽ**   tốt nghiệp.
 Two year more 2S   MODAL FUT   graduate
'Your will have to graduate in two years'.

To summarize, we can take that only 'sẽ' is base generated in T, 'đã' and 'đang', on the other hand, are merged lower in Asp. However, things get more complicated when we further look at the syntactic properties of these elements in the following section.

4.3.3 'Đã', though is base generated in Asp, obligatorily moves to T in non-negative contexts.

If we assume that 'đã' is simply base generated in Asp and 'sẽ' is base generated in T, how do we account for the unexpected fact that the combination of 'sẽ đã' is ungrammatical, even in a future perfect context (as in 57), and how do we explain the purely temporal reading of 'đã' in negative context (as in 58)?[31]

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[29]   Source: http://forum.mysamsung.vn/showthread.php?88199-WP7-H%C6%B0%E1%BB%9Bng-d%E1%BA%A9n-c%C3%A1ch-c%C3%83-i-nh%E1%BA%A1c-ngo%C3%83-i-v%C3%83-o-OMNIA-7-l%C3%83-m-nh%E1%BA%A1c-chu%C3%B4ng (Accessed 20 June 2013).
[30] Source:http://hieuvetraitim.org/tintucchitiet.php?id=525 (Accessed 20 June 2013).
[31]A seemingly counter-example of this claim is the following sentence when 'đã không' clearly yields a perfect/present interpretation:
(i) 'Chị đã   từng   rất   đẹp,   nhưng giờ đây chị đã không còn đẹp nữa.'
    3S ANT used-to very beautiful, but   now here   3s ANT NOT still beaut. more
    'She used to be beautiful, but she isn't any more.'   (Example of Duffield in prep)

(57) a. *Nó **sẽ đã** đọc sách
           3S FUT ANT read book
           'He will read books.'

      b. *Hai năm nữa anh về,   em **sẽ**   **đã** đi lấy   chồng   rồi.
          Two year more 2s return,   1S FUT ANT go marry husband already
          'When you come back 2 years later, I will already be married.'

(58) Anh ấy   **đã** không đi.
      3S DEM   ANT NEG go
              'He did not go.'
      NOT: 'He hasn't gone yet.

Our answer to both of the questions is that 'đã', although base generated in Asp, must further move to T, to check its inherent tense feature in addition to its aspectual feature.

Specifically, in affirmative sentences when Neg is not projected, 'đã' is merged under Asp and raises to T to check both of its aspect and tense semantic features. This movement is obligatory because it is feature driven. Accordingly, the complementary distribution of 'sẽ' and 'đã' comes straightforwardly, for we cannot have two words competing for the same T node.

(59)
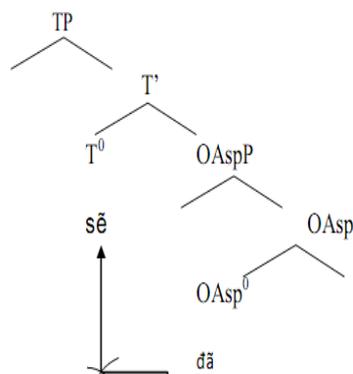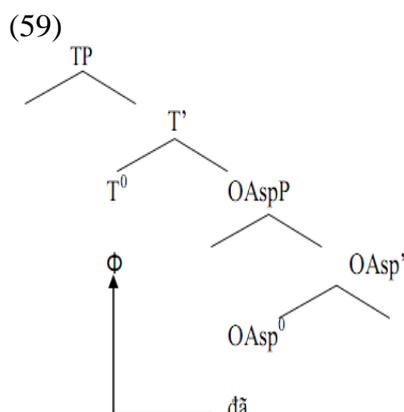
Our answer to (i) is that perhaps 'không còn' (no longer) is an adverb attaching to the VP, which is different from 'không', which is the head of NegP. Similarly, 'không bao giờ' (never) in Vietnamese can perfectly go with 'đã' in a present perfect context:
(ii) Anh ấy đã không bao giờ trở về nữa
     3S DEM ANT not ever return more
     'He has never returned.'
This is analogous to the difference between 'never' and 'not' in English: while 'not' obligatorily triggers do-support, 'never' doesn't.
(iii) a. * He *not* **applied.**
      b.   He { did *not,* did*n't* } **apply.**
(iv) a.   He *never* **applied.**
     b. * He did *never* **apply.**
What matters is that the syntactic behaviour and status of 'không' is different from that of 'không còn', 'khôngbao giờ'. In the case of 'không còn' or 'không bao giờ', NegP is not projected, thus nothing preventing 'đã' from raising Asp-to-T.

However, in negative contexts, I follow Duffield's (2009a) to put forward that when Neg is projected, it obstructs 'đã''s movement to T to a certain extent, forcing 'đã' to be inserted late directly under T, thus resulting in a purely temporal interpretation.[32]

(60)
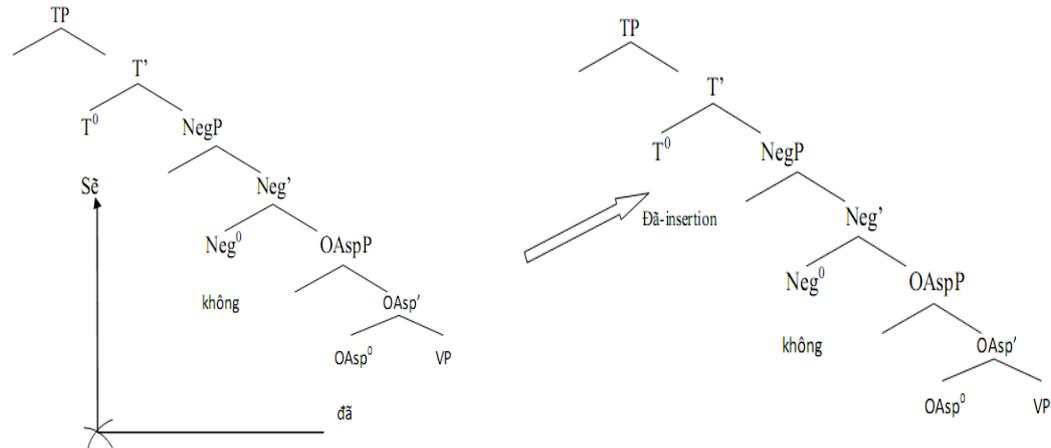
This syntactic analysis of 'đã' looks like a typical raising or insertion situation (for instance, English 'do'-support (Pollock 1989), or Chinese 'de'-construction (Sybesma 1999). That is to say, there exists a position that needs to be filled either by moving some lower element into it; or if this sort of movement is prevented, some other element is directly inserted into the structure[33]. An implication of this line of analysis is that it indirectly claims that Tense is projected in Vietnamese, as opposite to some other studies which deny the existence of Tense in Vietnamese (Cao 1998).

What is left to explain at this stage is how and why the default Aspectual reading of 'đã' is lost in negation context,[34] as illustrated in (58).

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[32] In Trịnh (2005), a different solution is proposed though he also comes up with a similar phrase structure. According to Trinh, there are two different 'đã' in Vietnamese: the temporal ĐÃ$_1$ which is base generated in T; and the aspectual ĐÃ$_2$ which is initially merged lower in Asp, then raises to T. See chapter 3 for further discussion on to what extent Trịnh's proposal fails to account for certain 'đã''s subtle properties. Contra Trịnh, I will posit that there is only one 'đã', therefore the loss of aspectual reading of 'đã' in negative context must be explained differently. I will return to this point shortly.

[33] In the absence of those markers, the bare sentence still can have either a present or past or future tense reading, depending other linguistic factors such as temporal adverbs or the verb type. That is, even in bare sentences, there is still a phonologically null underspecified Tense marker, its specific value is determined by other linguistic factors in the sentence. See Sybesma (2004) for an interesting proposal on Cantonese.

[34] Please note that the loss of aspectual reading in negative context seems to hold true only for the perfect-like 'đã', not for the progressive/durative 'đang'.

(i) Nó đang không làm gì cả

3S DUR NEG do what all

'He isn't doing anything at all.'

'Đang' in this negative sentence still maintains its progressive reading. This does not really constitute an counter-example for the raising analysis of 'đã', but instead provides another valid evidence in support of the claim that 'đang' interacts with negation differently from 'đã'. Also, it is worth bearing in mind that this character is also found crosslinguistically. According to Miestamo &Van de rAuwera (2011), in Paamese (Austronesian, Oceanic) the completive 'tai' is incompatible with negation, but the progressive 'velah' survives in negatives

(ii) Paamese (Austronesian, Oceanic) (Crowley 1982: 145, 226), cited from Miestamo &Van der Auwera 2011:15)

a. 'long-e b. ro-longe-tei.'

PRN hear-PRN NEG-PRN.hear-PRT

From a cross-linguistic point of view, there is a well-observed restriction on how certain kinds of aspect can appear in negative contexts (cf. Matthews 1990). For instance, in Bagirmi, the marker of completion 'ga' is reported to be unable to collocate with negation.

(61) a. 'ma m-'de.'
      PRN -come
      'I came.'

    b. 'ma m-'de ga.'
      PRN -come PERF.
      'I have come.'

    c. 'ma m-'de li.'
      PRN -come NEG
      'I did/have not come.'(Stevenson 1969: 98, 105, 130)
                          (Cited from Miestamo & Van der Auwera 2011:2)

Mandarin Chinese is also well reported regarding the mutual exclusiveness of the negative marker 'bu' with the perfective markers 'le' and 'guo':

(62) a. 'ta   qu le faguo.'
      3S   go LE France
      'He went to France.'

    b. '* ta bu   qu le faguo.'
      3S   NEG   go LE France
      'He did not go to France.'

(63) a. 'ta   qu guo faguo.'
      3S   go GUO France
      'He has been to France once.'

    b. '* ta bu   qu guo faguo.'[35]
      3S NEG   go GUO France
      'He has not been to France once.'   (Li 1999:235)

In Russian, perfective aspect is clearly dispreferred under negation.

(64) a. 'pro-chital stat'ju.'
      PERF-read paper
      'I read the paper.'

'He heard him.' 'He didn't hear him.'
c. '*inau na-ro-muumo-tei tai.'
   PRN-NEG-work-PRT COMP
'I have not worked.'
d. 'inau na-ro-munuu-tei velah.'
PRN-NEG-dive-PRT PROG
'I haven't been diving yet.'

[35] Note that 'guo' is perfectly fine with other negation markers such as 'mei' and 'meiyou'. Thanks Rint Sybesma for pointing this out to me.

    b. '!ne pro-chital stat'ju.'
        NEG PERF-read paper
        *'I didn't read the paper.'

                        (Matthews 1990: 85)
                        (cited from Miestamo & Van der Auwera 2011:2)

The obvious difference between Vietnamese and these latter examples is that negation does not block the presence of 'đã', but only its default interpretation. In this respect, Duffield (in prep) suggests an analogy to the "acceptable Superiority violations" in English.

In neutral contexts, such as in (65, 66), an object wh-phrase cannot cross a subject wh-phrase at s-structure:

(65)   Who __ saw what? [no Superiority violation]
(66)   *What did who see __? [Superiority violation]

Assume that to be interpreted as a wh-phrase, all wh-phrases must move to Spec, CP at LF. If this covert movement does not take place, the relevant interpretation is not accessible.

So (66) has the s-structure representation in (67a), but the LF representation in (67b)

(67) a.   [Whatj did [whoi see tj]
      b.   [Whoi[whatj did ti see tj]

It has been explained by Superiority Violations, and later on by Empty Category Principle, and Minimal Link Condition (Chomsky 1995) that all require shortest move.

However, Arnon et al (2005) question whether Superiority violations really lead to ungrammaticality, as there are contexts where the examples like (68) seem fine, for instance:

(68) - 'Did you know that there are no licensing laws or sales taxes in Andorra?
      - I did not. What did who bring back?'
                      (Arnon 2005 et al 2012)

Despite this, such configurations produce a change of interpretation: whereas in (65), both wh-phrases are accessible, giving rise to a so-called 'paired-list' reading (Jenny saw cake, Josh saw whiskey, Amy saw marshmallows), in (68) no such interpretation is available; who is only interpretable as an indefinite pronoun (≈ 'someone').

The relevant point is that although 'who' is permitted on the surface, it cannot have its default interpretation because the chain to the interpreted position is blocked. Duffield (in prep) argues that the same type of analysis applies to 'đã': negation does not actually block the abstract movement of 'đã', negation only obstructs its aspectual interpretation, and therefore the default aspectual reading of 'đã' is 'inaccessible'[36].

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[36] An anonymous reviewer of Lingua argued that the analogy between Superiority Violation and 'đã' movement is problematic, since whereas 'đã' moves and loses its default aspectual reading; in example (68), it is the stay-put 'who' that does not get the +wh reading. The mechanism that explains the restriction on 'đã' movement might be still left open, but what matters for the present purpose is that there is an undeniable intervening effect of negation between Tense and Outer Aspect.

Overall, 'đã' (anterior) is a multifunctional morpheme, since its exact interpretation varies depending on the syntactic environment: in declarative sentences, 'đã' is a tense-aspect mixture (it indicates that only the initial parts of the situation is prior to the default utterance time). But in negative sentences, 'đã' is a past tense marker (it simply indicates that the whole situation is located before the utterance time without referring to any particular parts of the situation). In imperative sentences as well as in other atemporal usages, 'đã' simply means that something is done/mentioned prior to something else. That is to say, all the particular interpretations of 'đã' (either the aspectual-temporal anchoring, or the purely temporal anchoring, or the atemporal usage) also stem from the syntax, not just from its lexical entry.

To conclude, we have seen that the syntactic order of the three markers really correlates with their interpretive features. Specifically, the essentially temporal nature of 'sẽ' enables it to be base generated as high as in T, while the purely aspectual essence of 'đang' keeps it stay low in Asp, and also, the compositional semantic analysis of 'đã' (i.e., 'đã' consists of both Tense and Aspect features), allows us to provide the explanation of why 'đã' has to move from its base generated position Asp to T (i.e., for the purpose of feature checking), which has been ignored by Trinh (2005) and Duffield (2009a). Overall, the data presented so far lend us strong grounds both semantically and syntactically to believe that there is at least one VP-external node that is independently projected from Tense, namely Outer Aspect.

4.4 Extension: Interaction of three temporal/aspectual markers with the assertion marker 'có'.

We have seen how interestingly these temporal/aspectual elements behave with respect to sentential negation. It is also of interest to look at the interaction of these preverbaltemporal/aspectual elements with other preverbal categories such as the multifunctional word 'có' to see whether or not the VP-external structure can be further articulated.

'Có' is interesting for apart from its usage as a lexical verb which means 'possess, have', as in:

(69) Nó **có**   nhiều tiền   lắm.
      3s have   many money excessive
         'He has a lot of money.'

it can be used functionally in assertive contexts:

(70) Mày **có**   nói thế mà
      2s ASR   say so PRT
      'You did say that!'

(71) a. 'Tân đã **có** giúp Lan.'
            ANT ASR   help
        'Tan did help Lan.'

                                                  (Trần Thuần 2011)

     b. 'Tôi đã **có** gặp anh Phòng một lần từ   thuở còn ở   Tiên Phước.'
        1S ANT ASR   meet 3s   one time from time still PREP
        'I did meet Phòng once when I was still in Tiên Phước.'   (Duffield   in submission)

Please note that the co-occurence of 'có' and 'đã' in assertive examples like (71) is subject to some dialectal variation. Speakers of Northern Vietnamese seem to resist saying examples like (71), while speakers of Southern Vietnamese find (71) perfectly natural. Given the role of dialects in the parametric approach, as stated by Rizzi (2000) below:

> 'dialectology deals with systems which are very close structurally and diachronically, which should then provide particularly favourable opportunites for teasing apart the primitive lines of bifurcation differentiating possible grammatical systems' (Rizzi 2000:4)

it is still worth investigating into the behaviour of the dialect-based assertive 'có' in interactive context with pre-verbal aspectual markers.

We can see that 'đã', 'đang', 'sẽ' appear before the negation, while 'có' must follow the negation:

(72) a. Tôi **đã không** làm việc đó
       1s   ANT NEG   do   job DEM
       'I did not do that.'

     b. Tôi **sẽ   không** làm việc đó
        1s   FUT NEG   do   job DEM
        'I will not do that.'

     c. Tôi **đang không** làm việc đó
        1s   DUR   NEG   do   job DEM
        'I am not doing that.'

     d. Tôi **không có** làm việc đó
        1s   NEG ASR   do   job DEM
        'I do not do that.'

This suggests that the projection of 'có' must be independent of the projection of tense and aspect markers. Furthermore, 'có' definitely is base generated lower than Asp:

(73) a. Tôi **đã   có** đến   nhà nó chơi hè   vừa   rồi
        1S ANT   ASR arrive   house 3s play summer   recent already
        'I did go visit his house this summer.'

    b. Tôi biết   là   nó **đang có**   giấu một điều gì   đó
      1S know COMP   3S PROG ASR   hide one thing what DEM
      'I know that he's hiding something.'

That is to say, of all preverbal elements, 'có' stays lowest in the structure. What would that projection be? There are two proposals: Duffield (2007) and Trần Thuần (2011), which are reviewed respectively.

According to Duffield (2007), 'có' heads the assertion phrase[37] in Klein's (1998) sense. Klein (1998, 2006) proposes that finiteness can be broken down into two meaning components: Tense and Assertion. Let's consider the following Klein's examples:

(74) a. 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.

The finite element *was* in (74a), as analysed by Klein, consists of (at least) two different semantic ingredients: the tense ingredient denotes the past, in opposition to the present, as shown in (74b), and the assertion component serves to assert the validity of the claim that the described situation in fact holds true, in opposition to the contrastive claim as illustrated in (74c). It is the tenseless use of the finite verb that is of concern here. To mark the assertion validity, English lexical verbs require do-support:

(75) The idea that he didn't love her is plainly wrong: John DID love Mary.

Therefore, *do*-support is actually a misnorm; the emphatic 'do' does not simply serve to support tense inflection, but has a function of its own as a marker of assertion validity. This function, according to Duffield, is similar to Vietnamese *có*. His crucial argumentation rests on the equivalence in distribution of Vietnamese 'có' and English do-support, namely they both occur in emphatic assertive contexts:

(76) Mày **có**   nói thế mà
      2S   ASR say so PRT
      'You did say that!'

in negative contexts:

(77) Tôi không **có** làm điều đó
      1S   NEG ASR do thing DEM
      'I did not do that.'

and in interrogatives:

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[37] This is, in fact, not a novel idea. Despite a different approach, Cao (2003:521) also states that 'có' marks 'khẳng định xác nhận' (confirmative assertives, translation mine), which is different from the zero marker of 'trần thuật khẳng định' (assertive declaratives, translation mine), as shown in the following pair of contrast:
    (a) Nó **có** đi   Confirmative affirmatives
        3S ASR go
        'He did go.'
    (b) Nó đi   Affirmative declaratives
        3S go
        'He went.'
Accordingly, 'có' in (a) establishes the validity of his going, which speaks directly in favour of Duffield's proposal.

(78) Bạn **có** muốn đi du học không?
　　 2S ASR want go abroad study NEG?
　　 'Do you want to study abroad?'

Motivated by Chomsky (1957)'s classic statement that emphases, negatives and interrogatives essentially share the same structure, Duffield proposes that 'có' occupies the same functional head in all above settings, in other words, despite of different contexts, there is only one 'có' heading the Assertion Phrase. In a nutshell, Duffield's key claims about the Assertion Phrase are:

(i)　　Assertion is not only semantically independent of tense but also is syntactically projected in the structure.

(ii)　　Assertion belongs to a multivalent semantic operator (+Q, + Neg, + Asr) deciding the illocutionary force of the sentence.

In a different account, Trần (2011) puts forward that 'có' is a focus particle and heads the focus phrase, which takes scope over the vP domain. His key argument comes from the following minimal pair of contrast:

(79) a. Đã **có** Tân giúp Lan
　　　　ANT ASR/EXT　　help
　　　　'Tan will help Lan.'
　　　　'Tan helped Lan.'[38]

　　 b. Tân đã **có** giúp Lan
　　　　　ANT ASR help
　　　　'Tan did help Lan.'

There are two main differences between the two sentences: the type of focus structure (while (79a) is an instance of sentence focus, (79b) is of predicate focus) and the NP in [Spec, TopP] (while the [Spec,TopicP] in (79a) is phonetically null, in (79b) the NP 'Tân' raises from its merged position within vP to [Spec,TopicP]. This leftward movement is motivated by the need to evade the scope of the focus domain (i.e., only 'Tân' is old information in 79b). This analysis is formulated as follows, where (80a) illustrates (79a), and (80b,c) represent (79b).

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[38] To my intuition, 'có' in (72a) behaves as the existential verb 'có', rather than the emphatic 'có'. The sentence nicely fits in a context where it serves as an answer to the question 'Is there anyone who helps Lan?'. That is to say, in (72a), the predicate 'Tân giúp Lan' is embedded under existential 'có', and therefore the whole sentence is possibly bi-clausal (cf. in English: 'It is the case that Tân helped Lan'). This is further supported by the fact that the aspectual marker 'đang' can occur in the embedded predicate:
(i) Đã có Tân đang giúp Lan rồi.
　　 ANT EXT　DUR help　　 already
　　 'There is Tan who is helping Lan'. or 'It is the case that Tan is helping Lan.'
If my intuition is correct, the two examples in (72a) and (72b) are not a minimal pair of contrast and it clearly undermines Trần's analysis. I thank Nigel Duffield for interesting discussion on this.

(80) a [TopP STAGE[TP đã [[FocP có [vP Tân giúp Lan]]]].

   b.[TopP Tân [[TP đã [FocP có [vP giúp Lan]]]].

   c.
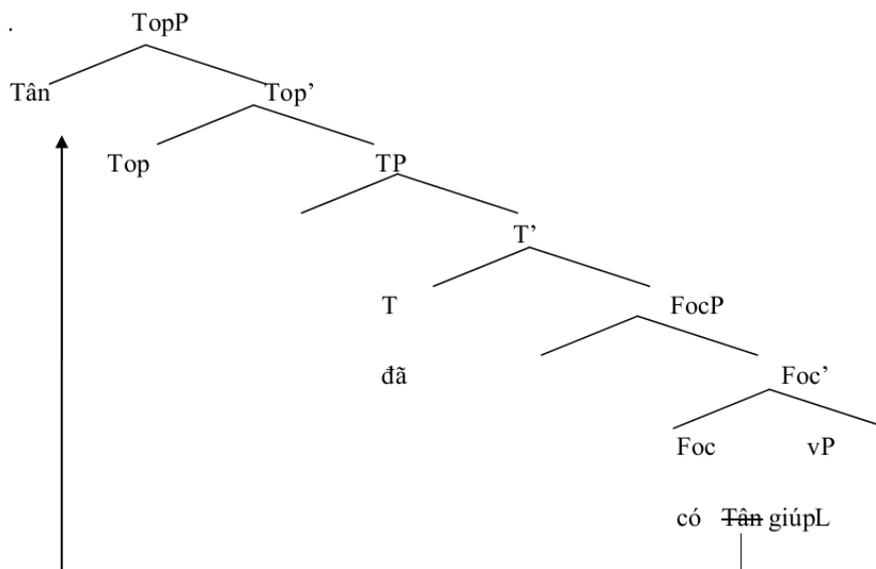
Two observations are in order:

Firstly, despite differences in claims and details, the two accounts both share the same theoretical insight, which is crucially pertinent to the discussion here. That is, Vietnamese provides empirical evidence in favour of the claim that those functional projections which are standardly assumed to be left peripheral (i.e. projected in the extended CP) such as ForceP, FocusP, are actually base generated quite low in the structure.[39] Consequentially, these operators do not take scope over the whole sentence, i.e., they only have scope over other sentential elements to their right, but not to their left. One apparent advantage of these analyses is that they offer an interpretive motivation for the leftward movement of some sentence material in Vietnamese as discussed briefly by Trần Thuần (2011) and in great length by Duffield (2007).[40]

Secondly, whatever the name of this low-position projection is, we cannot deny its existence as the intermediately above vP or the lowest IP-internal functional head. In fact, what to name it is still controversial crosslinguistically. This comparatively low projection is also found in other languages to be responsible for different things such as infinitival marking (French and English), subjunctives (English), DP licensing morphemes (Malagasy), or creating Yes-No questions (Danish), as listed by Travis (2010).

In this thesis, I adopt a neutral terminology: EventP in Travis's sense. That is to say, 'có' is an event realization marker. The main argument comes from short answers in Vietnamese.

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[39] Cf. Belletti (2004a), Breul (2004).
[40] The readers are referred to Duffield (2007) for other examples of scope-evasion-motivated movement in Vietnamese.

The answer 'Yes'[41] to Yes-No questions is formed either by 'có' or by repetition of the predicate. It is well-reported in the literature that 'có' is preferred in case of active predicates, whereas predicate repetition is favoured for stative predicates (Cao 2003):

(81) a. 'Minh có   đi họp   không?' Answer: 'Có/ ?Đi.'
              ASR go meeting   NEG?   ASR /go
          'Does Minh go to the meeting?' 'Yes, he does.'

      b. 'Từ   đây ra   ga   **có** xa không?' Answer:?Có/ Xa lắm or   Khá xa
          From   here to station ASR far NEG?   ASR/farexcessiveorSlightly far
          'Is the station far from here?'   'Yes, it is.'
                                (Cao's examples 2003: 502-503)

However, Duffield (2011) argues that the sensitivity of responsive to predicate-type is not an essential one. As illustrated below, generic contexts, which concern no specific eventuality, opt for predicate repetition; while those contexts which involve specific eventualities, on the other hand, give preference to 'có' responsive.

(82) a. 'Anh có   sửa   máy ảnh không?'   Answer: ?Dạ, có./Da, sửa.
              2S ASR repair camera   NEG   POL. ASR/POL. repair
          'Do you repair cameras?'   'Yes, I do.'

      b. 'Hôm qua khi   máy.ảnh của chúng tôi bị   hư,   anh   **có** sửa không?'
          Yesterday when   camera POSS 1P   PASS break, 2S ASR repair NEG
          'Yesterday when our cameras broke did you fix the cameras?'
          — A: Dạ, có/ *Dạ, sửa. 'Yes, I did.'   (Examples of Duffield 2011)

To this, I added the following observation, namely, 'có' is not employed when the eventuality is counter-factual:

(83) 'Giả sử   hôm qua máy ảnh của chúng tôi bị   hư,   anh có   sửa không?'
       Suppose yesterday camera POSS 1P   PASS break,   2S ASR repair NEG
       'Suppose that yesterday our camera had broken would you have fixed it?'
       — A: *Dạ, có/ Dạ, sửa. 'Yes, I would.'

Therefore, 'có' is used only when there is a need to explicitly state that the event has actually happened. The eventive-oriented character of 'có' is further indicated by the fact that 'có' only occurs with eventive predicates, not with nominal predicates:

(84) *Tôi có   là giáo viên
        1S ASR COP teacher
        'I am a teacher.'

For these grounds, 'có' is glossed as an event realization marker, and hence, heads the EventP as identified in Travis's (2010) proposal.

One more thing to note is that the projection of Event as an independent syntactic position helps to shed some light on the 'đã'/'đang' puzzle. Frankly speaking, although Klein's time-relational theory of Tense and Aspect nicely accounts for most of the intricate

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[41] Like many languages, Vietnamese does not have independent words for 'Yes' and 'No' (cf. Trịnh 2010)

characteristics of Vietnamese preverbal aspectual markers, it still leaves one thing to be explained, i.e., the intuition that in addition to the temporal and aspectual contribution, the presence of 'đã' and 'đang' also asserts that the situation indeed has taken place, or is actually real. Recall from chapter 2 that Arche (2006) proposes that Outer Aspect has two meaning components, namely the temporal perspective on the situation, and the number of occurrences of the situation. Each meaning component correlates to a distinct syntactic projection in the structure. Therefore, in addition to the well-established OuterAspectP, there is one more syntactically active functional projection, namely the Q<occ>P (Quantity of Occasions Phrase). This is positionally and interpretationally equivalent to Event Phrase of Travis (2010).

Applying this line of analysis to Vietnamese, we can say that 'đã' and 'đang' have (at least) two components in their semantics: the Outer Aspect component and the Event realization component ('đã' also has another Tense component), hence the intuition about their Event realisation function comes straightforwardly. This analysis on the one hand explains why speakers of the Northern dialect of Vietnamese resist to say 'đã có' and 'đang có', and on the other correctly derives the hierarchical order of 'đã có' and 'đang có' when they can be both phonetically realized in other dialectal variations of Vietnamese.

4.5 Conclusion

All the interpretive and distributional contrasts of preverbal elements shown above not only provide direct support for the realisation of 'Outer Aspect', but also expose transparently the functional phrase structure in Vietnamese. As a result of the above discussion, the IP structure is taken to be built up from (at least) the functional categories of: Tense, Negation, Outer Aspect, Event/Assertion, and hierarchically ordered as in (78):[42]

(85)

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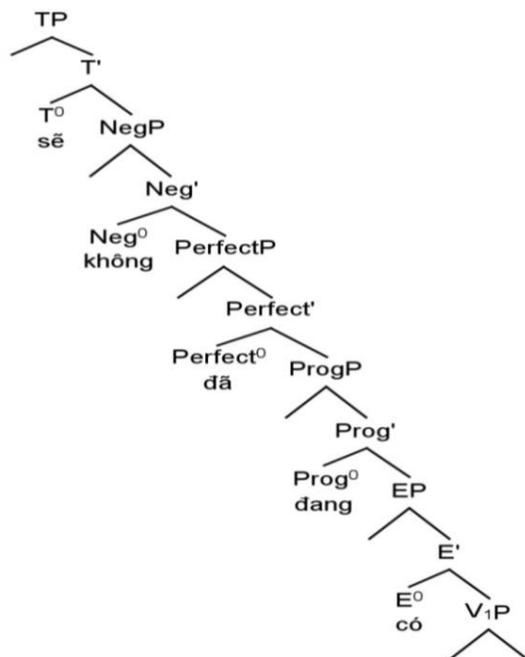
[42] The proposed articulated IP structure, in fact, can be further extended if Modality and its interaction with Tense and Aspect are taken into consideration. See Duffield (1999, in prep.) for a brief discussion on how to incoporate Modality into the structure.

Irrelevant difference aside, the VP-external functional catography that we arrive at in (85) is compatible with the tree of the syntactic heads proposed by Iatridou et al (2003)[43] as in (86), which is fully instantiated by the sentence from Chomsky (1957) as in (87).

(86)
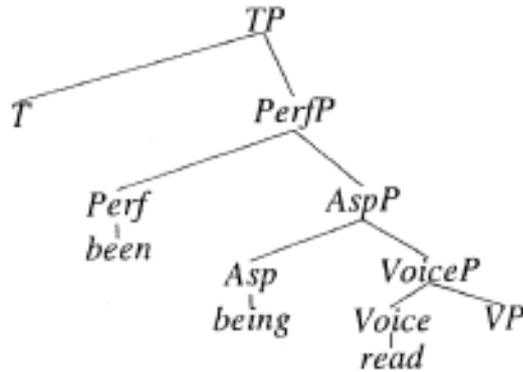
(87)   'These books have been read all years.'

To conclude, there is both interpretive and distributional evidence for an extended IP structure (as proposed by Pollock 1989, Iatridou 1990, Laka 1990, Ouhalla 1990, Chomsky 1991, Cinque 1999, etc.) in Vietnamese.

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[43] See Alexiadou et al (2003) for a similar proposal.

Chapter 5: The projection of Inner Aspect in Vietnamese[1]

The purpose of this chapter is to argue that Vietnamese has a system of Inner Aspect which works independently from the system of Outer Aspect. While Outer Aspect is connected to perfectivity, the notion of Inner Aspect centers on telicity. Here, I will first show how telicity is calculated in Vietnamese, and then how telicity is represented syntactically in this language via an independently projected head InnerAspect within the VP shell, and how the projection of this articulated VP shell helps to capture other descriptive facts about Vietnamese clauses.

5.1 On the compositionality of telicity in Vietnamese

In Vietnamese, telicity is conditioned by different factors: the lexical semantics of the main verb; the presence of particles, the quantification of the direct object, and the type of verbal construction involved. Each of these factors will be examined in turn.

5.1.1 Inherently telic verbs

Vietnamese has a small group of built-in telic verbs such as 'nổ' (explode), 'vỡ' (broken), 'thấy' (see); for such verbs, the endpoint is indefeasible.

(1)   Bom   đã   nổ
       Bomb ANT explode
       'The bomb exploded.'

(2)   Cái   lọ   đã vỡ
       CLS vase   ANT broken
       'The vase was broken.'

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[1] Much of this chapter is based on Phan (2013) and Phan (in press).

As expected, these predicates cannot co-occur with a telic particle:

(3)   a. ??Bom đã nổ   xong
         Bomb ANT explode finish
        'The bomb exploded.'

      b. *Cái lọ đã vỡ   xong
         CLS vase ANT broken finish
        'The vase is broken.'

It can be also observed that these verbs are [-volitional]: that is to say, the subjects are not Agents, but Undergoers. This is clear from the examples in (1) and (2): in (1), the bomb undergoes a change of state from not being blown up to being blown up, in (2), the vase undergoes a change of state from not being broken to being broken. All of these events take place without deliberate intention. In addition, 'xong' (literally means 'finish') in examples (3) functions not only as a telic marker, but also as a diagnostics of durativity.[2] Their incompatibility with 'xong' also suggests that they are also punctual verbs.

Their lack of intentionality and durativity indicates that they are achievements -in Vendler's (1957) terminology. As these verbs are already specified as [+telic] in the lexicon, cooccurence with 'xong' results in some kind of redundancy which presumably leads to deviance.

5.1.2 Telic particles

Aside from the small number of lexically telic verbs just exemplified above, the telicity can be manipulated through the addition of a telic particle.[3] These particles[4] occur between the main verb and the direct object and serve to convert an atelic event into a telic one:

(4)   a. Chú bò   tìm bạn
         CLS cow search friend
        'The cow looked for his friend.'

      b. Chú bò tìm   **ra** bạn[5]
         CLS cow search **out** friend
        'The cow found his friend.'

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[2] Cf. Uesaka (1996).

[3] This property is shared by other languages such asMandarin Chinese (Lin 2004), Thai (Koenig and Muansuwan 2000), and other East and Mainland Southeast Asian languages (Bisang 2003), etc.

[4] Here I am assuming that particles do not constitute their own syntactic category, they can be drawn from other word classes (noun, verb, preposition, adjective) (see Toivonen 2002, Muller 2002 for relevant discussion). I call them telic particles because they occur in the particle position, namely, the position of immediately following the main verb and accommodating aspectual meaning. That is to say, although particles do form a distinct subclass, their speciality does not lie in their categorical status. A morpheme can be a verb or a particle (or a main verb vs. a light verb in other terminology systems) depending on the syntactic environment they occur (see Butt 2003 for a similar position).

[5] The contrast between 'tìm' vs. 'tìm ra' in Vietnamese is similar to the synthetically expressed contrast in English between 'look for' vs. 'find' (and similarly between *look* vs. *see, listen* vs. *hear*). For that, Vietnamese is more morphologically transparent than English.

The particle *ra* literally means 'out': it normally bears a directional meaning, indicating that the object follows a path from within a contained space to some place outside that space, as in (5):

(5)　Nó　dắt　ngựa ra.
　　　3s　lead horse out
　　　'He led the horse out.'

However, in (4b), the referent of the object 'bạn' (friend) does not involve such a movement in physical space. The interpretation of the particle 'ra' in this sentence is purely aspectual; that is, it contributes a connotation of 'culmination' (or 'completeness') to the event.

There is no fully agreed set of post-verbal telicity markers among researchers, but there exist (at least) two main groups: the completive markers including *ra* ('out'), *xong* ('finish'), *hết* ('end'), *nốt* ('the rest of'), *mất* ('lose'), *cả* ('all'), etc. and the resultative markers such as *được* ('obtain,' 'get'), *phải* ('must'), among others.[6] I shall turn to discuss the interpretation and distribution of some of these particles, which is the main focus of this chapter.

The first thing to note about their distribution is that telic particles are syntactically distinct from adverbs. Although both telic particles and the adverb *rồi* ('already') appear postverbally, the completive marker obligatorily precedes the adverb *rồi*.

(6)　a.　Nó　đã　đọc sách **xong**　**rồi**
　　　　　3s ANT read book finish already
　　　　　'He has finished reading (the) books.'

　　　b.　* Nó đã　　đọc sách　**rồi**　　**xong**
　　　　　3s ANT　　read book already　finish
　　　　　'He has finished reading (the) books.'

Even when there is a positional shift between the object DP and the completive particle, as in (7) below, *rồi* still stays at the right edge of the sentence:

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[6] Providing a full list of post-verbal aspectual particles is beyond the scope of this study. Some morphemes which have not been included in any accounts of aspectual particles do in fact bear some aspectual information. For instance, compare 'lại' (come, again) in the two following sentences:
　(a)　Ông　　lại viết　　thư.
　　　　3s　again write letter
　　　　'He wrote another letter.'
　(b)　Ông viết lại　　　thư.
　　　　3s　write again letter
　　　　'He revised the letter.'
I thank Nigel Duffield for bringing these examples to my attention.
Different positioning of 'lại' results in different interpretations. Both (a) and (b) imply repetition but differ in what is repeated: in (a) the whole event of writing a letter is done over, but only the result state of the event is repeated in (b). See Von Stechow (1996)for a similar repetitive/restitutive ambiguity effect of 'wieder' (again) in German. What matters here is that there is a result state – denoting component which is hosted in a syntactic position immediately after the verb; and 'lại' (in (b)) is one of the detectors of this component.

(7) a. Nó   đã   đọc sách **xong rồi**   Object – Particle – 'rồi'
         3S   ANT   read book finish already
         'He has finished reading (the) books.'

     b. Nó   đã   đọc **xong** sách **rồi**.   Particle – object – rồi
         3S   ANT   read finish book already
         'He has finished reading books.'

Moreover, unlike the particle *xong*, the adverb *rồi* cannot intervene between the verb and the direct object.

(8) a. Nó   đã đọc   **xong** sách.   Verb -Particle – object
         3S   ANT read   finish book
         'He has finished reading books.'

     b. * Nó đã   đọc **rồi**   sách   *Verb – Rồi - object
         3S ANT   read already book
         'He has finished reading books.'

The same holds for other prototypical manner adverbs, such as *từ từ* ('gradually'); although they can normally occur quite freely in the sentence, they cannot be positioned between the verb and its noun complement:

(9) a. Ta tấn công   địch   từ từ
         1P attack   enemy gradual
         'We attack the enemy gradually.'

     b. Ta   từ từ   tấn công địch
         1P gradual attack   enemy
         'We gradually attack the enemy.'

     c. * Ta tấn công từ từ   địch
         1P attack   gradual enemy
         'We gradually attack the enemy.'

This characteristic is also shared by English adverbs, a commonality that is presumably due to the absence of finite verb-raising in the two languages.

(10) a. Alice slowly does her homework.

     b. Alice does her homework slowly

     c. Slowly Alice does her homework

     d. Alice is slowly doing her homework

     e. *Alice does slowly her homework

The fact that telic particles can appear in what is otherwise an opaque syntactic position, suggests that they deserve special treatment.[7]

What is more, the interpretation of certain post-verbal particles is affected by their syntactic distribution. Duffied (1999), for instance, observes that the interpretation of the modal particle *được* ('can') varies depending on where it is initially merged in the clause.

(11) a. Cô   ấy   **được** kiếm việc   Deontic modal
         3S   DEM obtain seek   job
         'She is allowed to seek a job.'

     b. Cô ấy kiếm việc **được**   Abilitative modal
         3S DEM seek job obtain
         'She is able to seek a job.'

     c. Cô ấy kiếm **được** việc   Achievement
         3S DEM seek obtain job
         'She found a job.'

These examples illustrates that whereas pre-verbal *được* corresponds to the deontic modal CAN, and sentence-final *được* is interpreted as an abilitative modal,[8] positioning *được* immediately postverbally yields a purely aspectual (achievement) reading: it is the presence of *được* in (11c) that assures the completion of the 'job-seeking' situation.

Another example of a multi-functional word is *xong*. The morpheme *xong* can either behave as a matrix predicate, in which case it means 'finish' as in (12), or as a telic particle somewhat akin to the telicizing particle 'up' in English (as in 13). As a main predicate, 'xong' can merge with TP.

(12) 'Nó sửa **đã xong**.'
     3S fix ANT FINISH
     'He finished fixing.'   (Examples of Cao 2000:10)

As a telic particle, as in (13), *xong* places some restriction on the definiteness of the direct object. Although objects may be found either preceding or following the particle, there are semantic restrictions on preceding objects, namely, a fronted object may be definite or generic NP denoting theme, but it CANNOT be indefinite:

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[7] Tue Trinh (p.c.) pointed out that adverbs, in fact, can appear between the verb and the direct object in languages like German. However, to me this descriptive fact only means that the lexical verb in German raises cross the adverbs to a higher functional position. English and Vietnamese lexical verbs, on the other hand, do not move that high. Therefore, in a language that lacks of lexical verb movement to a position outside of the VP like Vietnamese, the position of the telic particles in sentences like (7b) is clearly of interest.

[8] To see how the sentence-final 'được'in a head-initial language like Vietnamese challenges Universalist constraints, the readers are referred to Duffield (1999).

Definite NP

(13) a. Tôi nướng <u>cái bánh</u>[9]**xong**   rồi   Object- Particle
     1s   bake   CLS cake finish already
     'I have already finished baking the cake.'

   b. Tôi nướng **xong** <u>cái bánh</u>   rồi   Particle - Object
     1s   bake finish CLS cake already
     'I have already finished baking the cake.'

Generic NP

(14) a.   Tôi uống <u>bia</u> **xong**   rồi   Object - Particle
      1s   drink beer finish already
      'I have finished drinking beer.'

   b.   ?Tôi uống **xong** <u>bia</u>   rồi[10]   ?Particle - Object
      1s   drink finish beer already
      'I have finished drinking beer.'

Indefinite NP

(15) a. *Tôi nướng <u>một cái   bánh</u>[11]**xong**   rồi   * Object - Particle
      1s bake   one CLS cake   finish already
      'I have finished baking one cake.'

   b. Tôi nướng **xong** <u>một cái   bánh</u> rồi   Particle - Object
       1s   bake   finish one CLS cake already
      'I have finished baking one cake.'

Examples (13)-(15) illustrate a three-way contrast: only if the object is definite can it freely precede or follow the particle as in (13); if it is a bare kind-referring noun, it preferably precedes the particle as in (14); however, if it is indefinite noun phrase, it must appear to the right of the particle as in (15).

MacDonald (p.c.) observes that this restriction on direct objects due to the presence of 'extra' material in the VP is reminiscent of Slavic prefixes and English telicizing particles. For example, in Bulgarian, although the morphologically bare NP can generally be interpreted as either [+specific] or [-specific], the presence of some preverbs forces the [+specific] reading:

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[9] In Vietnamese, 'cái' is usually treated as a marker of specificity, rather than that of definiteness (Cao 2003), given that specificity and definiteness are different concepts: 'the feature [+definite] reflects the state of knowledge of both speaker and hearer, whereas the feature [+specific] reflects the state of knowledge of the speaker only' (Ionin et al 2004:4). In (13a), 'cái bánh' (the cake) is interpreted as specific definite.

[10] This sentence will sound much better in the context of serial events, say, the speaker has to try a variety of drink, such as beer, coke, cocktail, etc, and he has just finished one kind of drink in this series.

[11] Note that in Vietnamese, a NP with classifier co-occurring with a numeral (even without a demonstrative) can be interpreted as definite. This is different from Chinese (cf. Cheng & Sybesma 2005). All these descriptive facts can interestingly reveal the structure of NP in Vietnamese, something like DP>NumP>ClsP>NP, which is, however, far beyond the scope of this thesis.

(16) 'Toj na-pis-a   pisma   *3casa/za 3 casa.'
     He PERF-write-PRN/AORIST   letters *for 3hours/in 3 hours
     'He wrote letters in 3 hours.'   (Slabakova 2001:89)

In English, as pointed out by Svenonius (1994), one of the restrictions on verb-particle constructions is that the unstressed pronoun object obligatorily comes before the particle, as shown in (17). This restriction does not apply for stressed pronouns (as in 18a); nor for demonstrative pronouns (as in 18b), nor for the indefinite pronouns (as in 18c):

(17) a.   'Francine put it on.'

     b.   '* Francine put on it.'

(18) a.   'I'll give it up, and I'll give up YOU.'

     b.   'Al threw out these.'

     c.   'Al threw out one.'   (Svenonius 1994)

A more matching alternation is found in Dutch where indefinite objects cannot occur to the left of telic particles, as shown in (19):[12]

(19) a.   ' *Het meisje eet koekjes   op.'
           the girl   eats cookies PRT
          'The girl eats up cookies.'

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

     c.   'Het meisje eet   het rood   op.'
            the girl   eat. PRES the bread   PRT
          'The girl eats the bread up.'   (Thrift's examples 2003: 146)

Thus, the definiteness constraint is well-attested cross-linguistically; see also Diesing (1997) for other Germanic languages, Cheng & Sybesma (1999) for Chinese. What is crucial about these examples, however, is the observation that only objects preceding the particle are subject to definiteness constraints. This indicates that the verb-particle-object order is the unmarked order, while the verb-object-particle is derived as a result of leftward movement of the object.

In summary, the exact function and interpretation of *xong* varies depending on its position of 'xong' in phrase-structure: in a high position, it functions as a main verb (like English 'finish'), and can bear clausal tense; in a lower position internal to the VP, *xong* is a telic particle (like English 'up'), in close dependency with the direct object.[13]

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[12] I thank Nigel Duffield for bringing the Dutch examples to my attention.
[13] I am thankful to one of the anonymous reviewers of Journal of Portuguese Linguistics for convincingly pointing this out.

In brief, 'được' in (11c) and 'xong' in (13b) provide strong evidence for the existence of a syntactic position which is immediately below that occupied by the main verb, and which accommodates aspectual features.

A further important point to notice concerning the distribution of telic particles is that they are restricted to co-occur with certain kinds of predicate:[14] they may combine with dynamic and durative predicates, or activities in Vendler's terminology, but not with stative or punctual verbs.

(20) a. '* Nó chưa   no **xong**.'
           3S NEG   full finish
           'He has not been full yet.'

    b. '*Nó chưa   nổ   **xong**.'
           3S NEG   explode finish
           'It has not been exploded yet'.   (Cao's example 2000:11)

In more restricted contexts, aspectual 'ra' (out) is mostly compatible with verbs of creation, and 'hết' (end) with verbs of consumption:

(21) a. Họ   đã   tìm   **ra**   giải pháp
           3P ANT search   out   solution
           'They found out the solution.'

    b. Nó   ăn **hết**   bát   cơm
           3S   eat finish   bowl rice
           'He ate up the bowl of rice.'

It should be noted that verbs of creation and verbs of consumption have been reported in the literature to share the same attribute: their 'Incremental Theme object' (Tenny 1987, Slabakova 2008, amongst others). That is to say, the object can 'measure out' the event, in the sense that how much it comes into existence tells us how much complete the event is. As a result, examples of eventive predicates with 'Incremental Theme objects' have been paid much attention in the literature of telicity composition (e.g. Pustejovsky 1991, Travis 2010).

5.1.3 Numeral direct object

Another factor that is also responsible for the telicity of the predicate in Vietnamese, which, to my knowledge, has not mentioned previously in the literature of Vietnamese linguistics, is the cardinality of the direct object.

It is well-known in the literature that in English, depending on the presence and the [+q] feature of the object, the predicate is telic or atelic. This phenomenon is usually referred to

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[14] Telicity markers behave similarly to perfectivity markers regarding their interaction with the aktionsart of the main verb. Therefore, even though they belong to different systems, they are all aspect-related elements.

as the object-to-event-mapping (OTEM) [15] property (Verkuyl 1972, MacDonal 2010). Specifically, dynamic telic verbs and dynamic atelic verbs are marked as different partly because the objects of telic verbs are compulsory and 'quantity' (Verkuyl's terminology) (i.e., singular indefinites, definite, or numeral) while those of atelic verbs are optional and non-quantity (i.e., mass nouns or bare plurals).

Examples in (22) illustrate that the existence of a quantity object always results in a dynamic telic events in English:

(22) a. 'Arthur planted [a protective circle of mushrooms] around the house in one day.'
    Singular indefinite   Telic

    b. 'Edmund ate [the box of Turkish Delights that the Queen gave him] in 5 minutes.'
    Singular definite   Telic

    c. 'Susan read [the engravings on the door] in 2 minutes.'
    Plural definite   Telic

    d. 'The magician produced [two maps of Narnia] in an instant.'
    Numeral   Telic   (Examples of Nossalik 2009:33)

As shown above, it seems that the [+q] feature of English DPs depends on other properties: definiteness and cardinality (Gavruseva 2008).

A closer inspection, however, reveals that in English, in fact, only the addition of numerals can guarantee the telicity interpretation of the predicate. Compare (23a) and (23b):

(23) a. 'Bill ate sandwiches *in an hour/for an hour.'

    b. 'Bill ate fifteen sandwiches in an hour/*for an hour.' (Jackendoff 1996:306-307)

With the addition of definite determiners or demonstratives, on the other hand, the sentence may still get an atelic interpretation.

(24) a. 'Bill ate custard for hours/*in an hour.'

    b. 'Bill ate the custard for hours/in an hour.'   (Jackendoff 1996:307)

As a result of the above discussion, a rule can be drawn as follows:

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[15] It is also important to bear in mind that OTEM is different from incrementality. As MacDonald (2010) observed, achievement verbs do not take incremental objects but they do exhibit the OTEM property. For instance:
(a) 'John dropped the book #for ten minutes.'
(b) 'John dropped paper for 10 minutes.'   (Examples of MacDonald 2010:72)
The grammaticality difference between (a) and (b), (a) is ill-formed on a single event interpretation while (b) is not, results from the difference between the [+q]NP the book and the [-q]NP paper.

(25) If the DP object contains numeral quantifier, the eventuality must be completed/telic.

If the DP object contains a definite/or demonstrative modifier, the eventuality is ambiguous (it can be either telic or atelic).

This rule is a slightly modified version of the rule proposed by Soh & Kuo (2005).[16] The above generalization seems to hold true for Vietnamese. Vietnamese lacks articles even though it has its own way to designate definiteness (e.g., by demonstratives, some kinds of classifier, plurality, or other contextual factors), so the only obvious way to mark [+q] feature is cardinality.[17] In Vietnamese, the event must be interpreted as completed when the perfect accomplishment sentence consists of a numeral object, but is not obligatorily completed with a demonstrative noun phrase object.[18] Therefore, the combination between a numeral DP and a phrase expressing that the described event is unfinished leads to a contradiction, as in (26).

(26) *Nó **đã** ăn ba   cái bánh nhưng chưa **xong**   Numeral
       3S ANT eat three CLS cake but   NEG finish
       'He ate three cakes, but he did not finish them.'

On the other hand, when the DP contains a demonstrative, even though the event can be interpreted as completed, there are still appropriate contexts when the described can even be unfinished, hence no contradiction obtains:

(27) Nó **đã** ăn   cái bánh đó   nhưng chưa **xong**
       3S ANT eat CLS cake DEM but   NEG finish
       'He ate that cake, but he did not finish it.'

That is to say, although it is not as strong as in English, Vietnamese DPs still affect the aspectuality of the predicate to a certain extent.

5.1.4 Other factors

Telicity is also triggered by other factors such as the resultant secondary verb in resultative constructions, or the path-goal PP in motion verb constructions.

(28) a. Tôi lau **sạch** mọi thứ rồi
        1S wipe clean every thing already
        'I wiped everything clean.'

     b. Con mèo nhảy **lên** giường.
         CLS cat   jump up bed
         'The cat jumped up on (my) bed.'

The presence of 'sạch' (clean) and 'lên' (up) forces the telic reading of these sentences.

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[16] The readers are referred to Soh & Kuo (2005) for detail.

[17] Quantization is also strongly marked by numeral classifier in Chinese (Soh & Kuo 2005) and Korean (Lee 2000).

[18] I owe this observation to Soh&Kuo (2005) who initially put forward this idea in Chinese. I will return to this in chapter 6.

In conclusion, like many other languages, Vietnamese encodes telicity either lexically or syntactically. Factors that license telicity are found cross-linguistically. However, linguistic variation lies in which factor plays the most significant role and how these factors interact with one another. Roughly put, all languages express telicity but they differ in how/where exactly telicity is syntactically projected in each language. It is also the locus of difference among hypotheses offered in the literature. For instance, the most studied pair of languages in the realm of Inner Aspect is English and Russian. The crucial difference between the two languages is that, unlike in English, in Russian, it is not the internal argument, but the preverb that has final say in the aspectuality of the whole predicate, as can be seen in the example (16), repeated here as (29) for convinence, the predicate is telic due to the addition of the preverb 'na', and regardless of the [–q] DP object:

(29) 'Toj na-pis-a   pisma *3 casa/za 3 casa.'
      he PERF-write-PRN/AORIST   letters *for 3 hours/in 3 hours
      He wrote letters in 3 hours.'   (Slabakova 2001:89)

To account for this language variation, Slabakova (2001) and Travis[19] (2010), argue that cross-linguistcally, telicity is encoded in different syntactic heads and this head could be located in the V_1 (or little v in other terminology systems) (such as inRussian), in Asp (such as in English[20] and Malagasy), or in X (such as goal phrases in English and resultative predicates Chinese).

(30)

(from Travis 2010)

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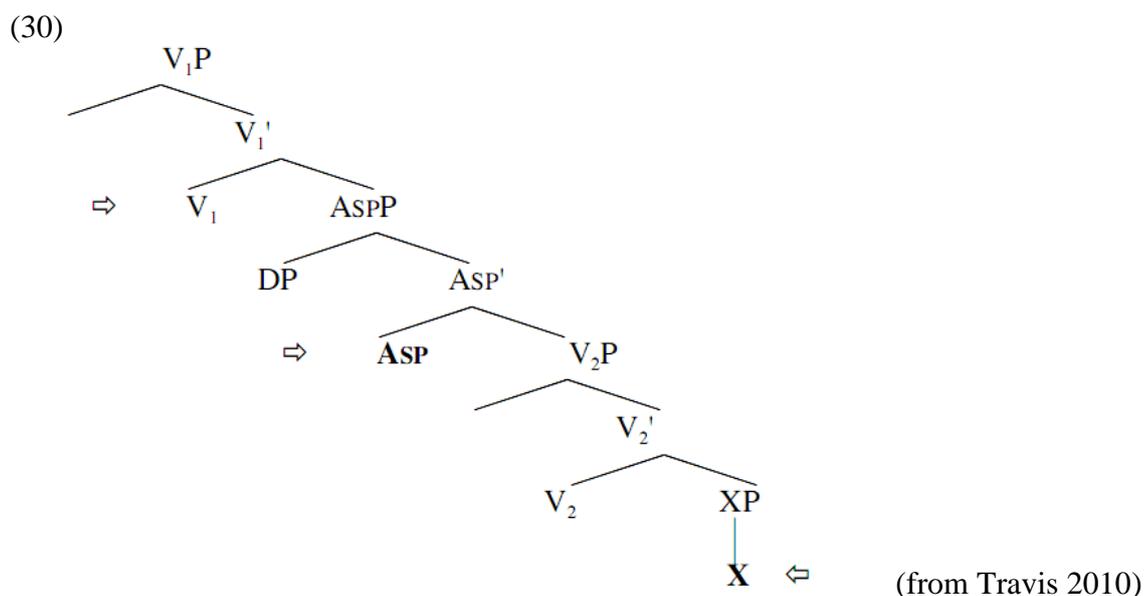
[19] See Borer (2005), Nossalik (2009), MacDonald (2010) for alternative views. For instance, Borer (2005) and Nossalik (2009) argue that even though both English and Russian have the projection of Inner Aspect in their phrase structure, the two languages have different telicity assigning mechanism within the Inner Aspect Phrase: English verbs obtain their telicity indirectly from the internal argument occupying [Spec,InnerAspP], while in Russian, Inner Aspect head (their terminology Asp_Q which is equivalent to Travis's Asp) acquires its range directly from the preverbs. MacDonald (2010), on the other hand, explains this language variation by proposing that English and Russian actually have different phrase structure: English has the projection of Inner AspP in their phrase structure whereas Russian lacks of this projection. See chapter 2 for detailed discussion.

[20] Actually, Travis (2010) argues that telicity in English is located in X, instead of in Asp as proposed by Slabakova (2001). However, the crucial point that remains the same in the two accounts is that Russian places telicity structurally higher than English does.

The three possible positions are differentiated by Travis (2010) according to:

(i) Whether the telicity marker is a lexical (adjective or preposition), an inflectional (ASP) or a light verb head (V_1),

(ii) whether it is in the Goal position setting up the final point of the event, in the Aspect position determining a specific point of the event, or in the Process position simply providing an arbitrary temporal boundary to the process,

(iii) and most importantly, its relationship with the internal argument, i.e., whether its scope is above or below the 'event measuring' DP.

Converted Travis's (2010) insights into nanosyntax's perspective (Ramchand 2008, Son & Svenonius 2008, Butt & Scott 2002), the cross-linguistic variation lies at micro level, i.e., telic morphemes of different languages might have different syntactic sizes: they can either spell out only one of the three heads (V1, Asp, X) or two heads out of three or even all of the three heads.[21]

At first glance, Vietnamese seems to be in common with Russian in marking telicity morphologically overtly for the most part, as indicated in section 5.1.2; and also share with English in the role of the internal argument in the computation of telicity as shown in section 5.1.3. The question is if we assume that telicity can be assigned in three positions in the phrase structure, namely V1, Asp, X under which functional head Vietnamese places telicity, or what the syntactic size of Vietnamese telic particles is.

5.2 Syntactic projection of telicity in Vietnamese

The aim of this section is to claim that telic particles in Vietnamese head the Inner Asp phrase, which appears between V_1P and V_2P. Their syntactic position in the phrase structure is argued to be determined by their interaction with the main verb and with the internal argument.

The verb and the telic particles appear to form a single unit. Together they thematically license both the internal argument and the external argument. For instance, in the examples (11c), repeated here for convenience:

(31) Cô   ấy kiếm **được** việc
      3S   DEM seek obtain job
      'She found a job.'

'cô ấy' (she) is understood as the subject of the complex verb-particle 'kiếm được' (seek obtain); and also 'việc' (job) is interpreted as the object of the whole complex. That is to

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[21] Please note that this might be also true for different telic morphemes of the same language.

say, the particle on its own is not predicated of the object.[22] In this sentence, the particle 'được' (obtain) says nothing about the properties of the object 'việc' (job).[23]

However, the main verb-particle complex can be separated by the object, which results in two alternative word orders:

(32) a. Nó làm **xong** bài rồi   V-particle-object
       3s do finish   exercise already
       'He has done the exercises.'/ 'He finished doing the exercises.'

     b. Nó làm bài **xong**   rồi   V-object-particle
        3s do exercise finish   already
        'He has done the exercises.'/ 'He finished doing the exercises.'

Structurally, telic particles are argued to dominate VP for they change the interpretation of the whole predicate by adding telicity to atelic events, as illustrated in the contrast between (4a) and (4b), repeated here:

(33) a. Chú bò tìm   bạn
       CLS cow search friend
        The cow looked for his friend.'

     b. Chú bò tìm   **ra** bạn.
        CLS cow search out friend
        'The cow found his friend.'

In brief, the unity, the autonomy, and the hierarchy between the telic particles and the main verb are those characteristics that are of importance in determining their syntactic positions and need to be taken into consideration in any studies.

To account for this relationship, Fukuda (2007) proposes that telic particles head a XP projection above VP, and the word order stems from via the raising of the main verb to a functional projection higher than the position of telic particles:

(34)

$$[_{YP} \quad V_i + Y [_{XP} \quad \text{T-PART} [_{VP} \, V_i \ NP]]]$$

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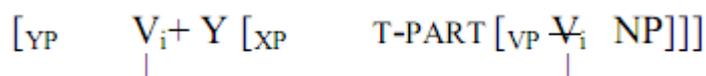
[22] This property distinguishes the verb-particle constructions from the resultative constructions. While the particles are not predicated of objects, the resultative secondary verbs are. For instance, in the example above (21a), repeated here:

    (21a) Tôi lau **sạch** mọi thứ rồi
          1s wipe clean every thing already
    'I wiped everything clean.'

'sạch ('clean') is clearly in a direct predication relationship with the direct object 'mọi thứ' ('everything').

[23] This suggests that the DP object or the internal argument is not base-generated in the complement position of the particle. In other words, [Spec, Asp] is a derived position of the object which is initially merged in a lower position, a well-reported observation in the literature (Ramchand & Svenonius 2002, Nossalik 2009, Travis 2010).

Furthermore, Fukuda clearly spells out that that XP projection is Inner Aspect, following Travis (2000, 2010):

(35)
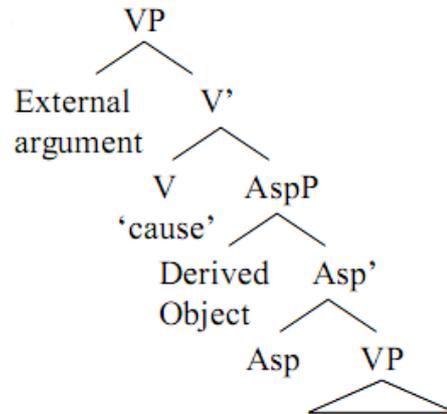
(Fukuda 2007)

Proposing that telic particles head their own phrase, which is immediately above VP, nicely captures the autonomy and the hierarchy between the particles and the main verb discussed above. However, as Fukuda admitted, his study leaves unexplained the question of how the main verb moves from V_1 to V_2 (or V to v in other terminology systems) via Asp without violating Head Movement Constraints (Travis 1984), given that the main verb must move from V_1 to V_2 for theta role assigning purposes.

I will present a proposal adapted from Nicol's (2002) Extended VP-Shell Hypothesis, which not only offers a mechanism of head movement inside the VPs, but also allows the two word orders shown in (32) to derive.

According to Nicol, there is a head inside the VP shells under which the particles might get inserted (the *w* head in his word, structurally equivalent to *Asp* in Travis's terms, but is taken to express directional or possessional content).[24] Furthermore, particles have the formal feature of either [+verbal] or [+nominal], which need to be checked during the derivation. This is empirically aided by the fact that English particles can be nominalized or verbalized,[25] as indicated by the following examples:

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[24] I adopt Nicol's (2002) Extended VP shell hypothesis because on the one hand, Nicol's proposal nicely accounts for the word order alternation displayed in Vietnamese (as in English), and on the other hand, Vietnamese data speak directly in favour of the assumption that the particle occupies a functional head position higher than the root verb position. However, unlike Nicol, I assume that this functional head expresses telicity (for the presence of these particles clearly gives rise to an accomplishment reading). This puts my analysis closer to Dehé (2000), who argues that 'particles are the lexicalization of the functional category *Tel(icity)* in the extended verbal projection' (Dehé 2000:119-120). However, my analysis also differs from Dehé (2000)'s in that particles in Vietnamese do not behave as clitics as proposed by Dehé. The claim that particles are clitics leads Dehé to two assumptions: (i) particles are not base generated under *Tel* but are selected from the lexicon and can adjoin to both the minimal and maximal projection level - V°, and VP respectively- (hence the word order alternation), AND (ii) no [Spec, *Tel*] is needed to project as a target position for movement operations. Vietnamese data do not support these two assumptions. As we proceed, it will be shown that Vietnamese telic particles are inserted (or base generated) independently under a VP-internal functional head, and its specifier position is also activated.

[25] Note that it is well-observed that many verbal roots in English are categorically ambiguous, for instance, 'go', 'jump', 'smile', 'dance', etc. can be either nouns or verbs.

(36) a.   'They were bewildered at the ups and downs of the NASDAQ.'

 b.   'We upped the ante.'

 c.   'He downed the whole bottle.'

(Nicol 2002:168)

Similarly, Vietnamese particles are originally verbs, and also are able to undergo the nominalization process by appearing after classifiers:

(37) a.   Cuối cùng anh cũng được   thư   nhà.
 Finally   3s   also obtain letter home
 'He finally got a letter from home.'

 b.   Nó   mất mẹ   từ   khi   còn nhỏ.
 3s   lose mom from when still small
 'He lost his mom when he was young.'

 c.   Họ phải   cân nhắc cả cái   được   và   cái   mất trước khi đưa ra quyết định.
 3P   must consider all CLS obtain and CLS lose before when give out decision
 'They have to consider all the pros and cons before making a decision'.

It is assumed that the verbal feature of the particles motivates V-to-Asp raising, and the nominal feature of the particles attracts nominals to its specifier. Accordingly, the verb-particle-object order derives as a result of particle insertion with the verbal checking feature: the particle is inserted under Asp with the feature [+verbal], V is triggered to move to Asp, erasing the formal feature; then the [V+ particle] complex raises to v.[26] On the other hand, the verb-object-particle order derives when the particle is inserted with the feature [+nominal], motivating the direct object raise to [Spec, AspP] to erase the checking feature; then V moves to v in one step, and hence we get the right order.[27][28]

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[26] See Koizumi (1995) for a similar proposal.

[27] An alternative solution for the V-to-v movement via the in-between InnerAsp head can be suggested from the work of Tang (1997) on Chinese resultative compound. Tang argues that there exists a functional category F within the VP shell (pretty much equivalent to InnerAspect head in my thesis), which is a [+F +L] element, i.e., a functional category with lexical nature (in the sense of Fukui 1993), hence the movement of the resultative verb to the matrix verb via F does not violate 'chain uniformity' (Yafei Li 1990, Chomsky & Lasnik 1993). I leave the readers open to both solutions.

[28]Or alternatively, it could be assumed that Head movement constraint is not always motivated, and long head movement is not impossible in UG. As Rivero (1993) proposed, in Old Romance, long head movement holds in cases when V^0 moves to C^0 skipping finite Auxiliary in I^0 as a last resource in order to provide a syntactic support for a pronominal clitic. A similar analysis might be applied to Vietnamese telic particle constructions, where the root v raises to V bypassing the Inner Aspect^0, and this might be triggered by the need to provide the landing site for the moved object. I owe this insightful suggestion to Nigel Duffield.

5.3 Immediate consequence: Thematic hierarchy in causatives

We have built up so far a VP shell of a higher layered structure. The next thing to consider is that how this articulated structure enables us to capture some other descriptive facts in Vietnamese. In this section, I will show that projecting an intermediate VP-internal functional head helps shed some light on the thematic hierarchy of the complex causative constructions in Vietnamese. Specifically, the complex causative constructions exhibit a three-way thematic contrast of VP-internal arguments (instead of the standard twofold classification Agent vs. Theme): Intentional Cause (prototypical Agent) > Non-intentional Cause > Theme, in which Non-intentional Causes are projected independently, and structurally lower than 'Intentional Causers', but higher than Theme, thus, are argued to occupy the specifier position of a functional head which is layered between V_1P and V_2P (adopted from Duffield 2011). Let's unpack these claims.

As an isolating language, Vietnamese causativity must be computed analytically by (at least) two predicates: the higher causative predicate V_1 'làm' (literally means: do, make) and the monovalent base predicate V_2:

(38) Tôi làm cái ly vỡ (rồi).
       1s make CLS glass broke (already)
       'I broke the glass.'

No synthetic causative is allowed:

(39) a. 'Cái ly vỡ (rồi).'
          CLS glass broke (already)
          'The glass broke.'

      b. '*Tôi vỡ cái ly (rồi).'[29]
           1s   break CLS glass (already)
           'I broke the glass.'   (Examples of Duffield 2011)

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[29] Nguyễn Văn Hiệp (p.c.), suggests that one can think of a context which possibly changes the acceptability of (39b). For instance, (39b) can become felicitous in the case when the speaker wants to make a contrastive statement, such as:

   (i)   Tôi vỡ   cái ly   rồi, còn   nó thì vẫn còn nguyên
           1s break CLS glass already, about   3s   TOP still exist remain
           'As for me, my glass was broken, while his still remains unbroken.'

Another example of sentences like (i) is (ii):

   (ii)   Tao cháy con IC hôm qua vừa   mua rồi, còn   nó thì vẫn còn nguyên
           1s burn CLS IC yesterday just buy already, about   3s   TOP still exist remain
           'As for me, the IC (microchip) that I just bought yesterday was burnt out, whereas his IC still remains uninjured.'

Whatever the interpretation of (39b), one thing should be clear that the DP 'tôi'/'tao' ('I') here cannot bear an Agent thematic role.

The 'làm' causative constructions are argued to be mono-clausal in terms of binding domain as well as other syntactic diagnostics (Kwon 2004, Duffield 2011). What really interests us is that the 'làm' causative constructions display several contrastive facts due to the unaccusativity of the V_2 predicate. The first remarkable contrast involves the intentionality of the action denoted by the V_2 predicate: the non-controlled V_2 predicates (either the non-volitional unaccusative in (40a) or the uncontrolled unergative in (40b)) are much better formed than the controlled V_2 ones in the constructions (as shown in the grammaticality contrast between (40a) and (40b) on the one hand and (40c) on the other hand). Only with the addition of another predicate 'cho' (literally means: give), the controlled unergative causatives become perfectly acceptable (as illustrated in the contrast between (40c) and (40d):

(40) a. 'Tôi làm thằng bé ngã.'
          1s make CLS boy fall
          'I made the boy fall.'

      b. 'Tôi làm thằng bé khóc.'
          1s make CLS boy cry
          'I made the boy cry.'

      c. '??Tôi làm thằng bé nhảy.'[30]
          1s make CLS boy dance
          'I made the boy dance.'

      d. 'Tôi làm cho thằng bé nhảy.'[31]
          1s   make give CLS boy dance
          'I made the boy dance.'.   (Duffield 2011)

Secondly, some core unaccusative predicates are allowed to precede the DP$_2$, furthermore, it is clearly preferred than the non-inverted order; in sentences involving typical unergative predicates, on the other hand, the inverted order is completely forbidden:

(41) a. Tôi làm   rách tờ   giấy
          1s   make torn CLS paper
          'I made the paper torn.'

      b. !Tôi làm   tờ giấy   rách
          1s make CLS paper torn
          'I made the paper torn.'

---

[30] As can be seen from the English translation, 'làm' is less productive than 'make' in English and is more similar to English lexical causativation. In English, productive (syntactic) causatives do not differentiate between unaccusatives and unergatives, but lexical causatives do. Specifically, only unaccusatives can undergo lexical causativation. For instance, compare:
   (i)   He will break the vase.
   (ii)   *He will fall the child.
See Travis (2010) for further discussion.

[31] In this thesis, I follow Duffield (2011) in treating 'làm' causative and 'làm cho' causatives as two distinct structures according to their different syntactic behavior with respect to the thematic hierarchy. Only the làm causatives show thematic constraints, therefore they are the focal point of the thesis.

    c. *Tôi làm   nhảy thằng bé
       1s   make dance CLS boy
       'I made the boy dance.'

These examples together show a three-way contrast of thematic relations of VP's arguments: Intentional causes (or Agent) are excluded from the làm causatives (as shown in the marginal acceptability of (40c)); only arguments interpreted as non-Agent (non-intentional Cause and Theme) can be licensed (as illustrated in (40a) and (40b)), in which a true Theme is merged lowest in the structure (as indicated in 41a).[32]

In brief, what is drawn from all of the Vietnamese data above is that the non-intentional cause is a syntactically independent argument, which is merged in a lower position than Agent, but higher than Theme. Proceeding from the assumption that different thematic roles are generated under different but strictly ordered specifier positions and different shells are created in order to house extra theta-positions (Larson 1988, Nicol 2002), we need (at least) one functional head sandwiched between V_1P and V_2P to host the Non-intentional Cause argument in the structure.[33] It is exactly what the projection of Inner Aspect offers us, as shown in the following Travis's tree:

(42)
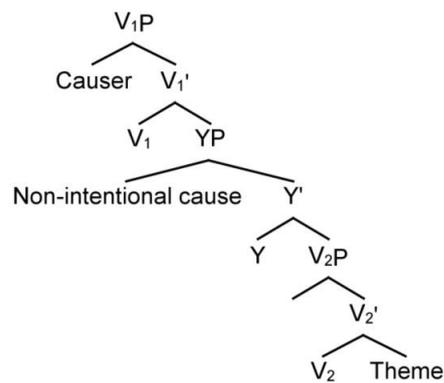
(Cited in Duffield 2011)

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[32] See Butt & Ramchand (2005), Travis (2005), Huang & et al (2009) for further supporting evidence from Hindi/Urdu, Malagasy/Tagalog, and Chinese respectively for the observation that the so-called 'external argument' is not all of the same kind; instead they can be further divided into Agent and Cause in the syntax.

[33] It is well-reported that the Volitional Causer has a syntactic privilege in the structure (Hale & Keyser 1993), it is associated with the highest functional head in the VP shell, namely the V_1 or little v. For instance, the so-called light verb 'give' in 'to give a pull', which is widely assumed to be an instantiation of V_1 (Adger 2003) serves to signal that the action is carried out deliberately (compare 'to give a pull' vs. 'to pull'). However, it is much less well-established that Non-Volitional Cause is also syntactically encoded. Many researchers attempt to account for the contrast between Volitional Causer vs. Inadvertent Cause without introducing additional functional heads, such as Kalluli (2006). Jacqueline Gueron (p.c), for instance, suggests that all the extra projections could be reduced to aspectual projections. Particularly, the notion of "accidental cause" is undesirable as it may be that some causative elements have special aspectual properties, for instance, if 'làm' is an inchoative or punctual morpheme, it would follow that you can say NP1 made NP2 fall/cry but not "dance" since the latter event takes time. In this case, we only need an element with more extended aspect, like "give", to handle an event which takes time. What Gueron suggests is exactly what is proposed by Ramchand (2003) (see chapter 2 for detailed discussion), where all the VP-internal projections are aspectual, and an aspectual process projection is located structurally right below an aspectual causative projection. In this thesis, our detailed investigation, however, shows that the subtle contrasts displayed in the LÀM causative constructions, not only lies between the feature [+/- Process] but also between [+/- Volitional]. And more importantly, they not only systemically affect the semantic interpretation, but also have obvious syntactic effects; therefore, it may be well that they need to be structurally presented. To this extent, my analysis can be considered as a further articulated structure from the one proposed by Ramchand (2003).

The ungrammaticality, i.e., the obligatory exclusion of 'thằng bé' (the boy) as an Agent, of (40c), therefore, results from the inability to license Agents, whose base position - [Spec, V_1]— is structurally high above the Inner Aspect projection. This fact in Vietnamese is compatible with the widely-held assumption that External argument[34] (which is usually Causer or Iniatior theta-role wise) is too structurally high to participate in the computation of Inner Aspect (MacDonald 2010, Travis 2010). The predicates are telic disregarding the [-q] feature of the external argument NP:

(43)   a.   'Wildlife ate the bag of trash in ten minutes/#for ten minutes.'

     b.   'Livestock pushed the cart into the barn in/#for ten minutes.'

                        (Examples of MacDonald 2010:74)

To sum up, the realization of Inner Aspect in Vietnamese reveals a more articulated VP shell structure, which helps to bring verb – particle constructions and complex causatives pattern together.

Similar attempts can be found in the literature such as Taraldsen (1983), Afarli (1985), Den Dikken (1995). For example, Taraldsen (1983) notices that in Scandinavian, the verb-particle construction and the La-causative constructions (his terminology, for the causative verb 'la' ('let, make') show a strikingly similar cross-linguistic ordering pattern. Specifically, with regard to the verb-particle construction, Danish only allows the particle to follow the DP object, while Swedish only allows the particle to precede the object:

(44)   a.   'Vi slap {*ud} hunden {ud}'.   (Danish)
          we let   out   the.dog   out
          'We let the dog out.'

     b.   'Vi släpte {ut} hunden {*ut}.' (Swedish)
          we let   out   the.dog   out
          'We let the dog out.'
                    (from Taraldsen 1983, cited in Svenonius 1994)

The same pattern holds for the La-causative constructions: Danish allows the secondary predicate to follow the DP object only, and Swedish allows the secondary predicate to precede the object only:

(45)   a.   'Vi lod   {fangene} løslade {*fangene}.'   (Danish)
          we let the.prisoners release   the.prisoners
          'We had the prisoners released.'

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[34]At first glance, the following sentences seem to counter-exemplify that assumption, when the Subject actually contributes to the telicity of the predicate:

   (a) John died in an hour/ * for an hour.

   (b) Tourists died for an hour/* in an hour.   (Examples of Shi 1990:106)

However, I follow the Unaccusative Hypothesis (Perlmutter 1978) and take the subject of this sort of intransitive sentence as the underlying object, which raises to the surface position of the subject during the derivation.

b. 'Vi lät {*fångarna} släppa {fångarna}.' (Swedish)
    we let   the.prisoners release the.prisoners
    'We had the prisoners released.'

(from Taraldsen 1983, cited in Svenonius 1994)

Interestingly, Vietnamese also shows a similar word order parallel between the two constructions. As shown above, in Vietnamese, the object can either precede or follow a certain type of particles:

(46) a. Nó đã   lau   bàn **xong**
      3s ANT   wipe table finish
      'He wiped down the table (He finished wiping the table).'

b. Nó đã   lau **xong**   bàn.
      3s ANT wipe   finish table
      'He wiped down the table (He finished wiping the table).'

Similarly, the object can either go before or after the secondary predicate in causative constructions:

(47) a. Tôi làm   cái que   gẫy
       1s   make CLS stick break
      'I broke the stick.'

b. Tôi làm   gẫy cái que
       1s make break CLS stick
      'I broke the stick.'

(Duffield 2011)

Moreover, one must acknowledge that despite the similarity in word order alternations, the two constructions still differ from each other. As shown above, the secondary predicates in the causative constructions are obviously predicated of the object, while the telic particles say nothing about the object's states. For the purpose of this thesis, whether or not the verb-particle and the causative constructions truly share the same underlyingly syntactic structures are left open, what is important here is that together they can shed some lights on the explosion of the extended VP shell in general, and the projection of Inner Aspect in particular.[35]

This analysis has several important implications.

First, Vietnamese data provide further supporting evidence for the opinion that the unaccusative-unergative distinction is syntactically real.

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[35] I have shown two kinds of Vietnamese complex predicates (or serial verbs), in which one predicate is lexical and the other is causal or aspectual. The implication is that Vietnamese can be categorized into a serializing language (in the sense of Aikhenvald & Dixon 2006). Here I only deal with causative serial constructions and aspectual serial constructions, which are both asymmetrical (in the sense that either V1 or V2 in the series belongs to a restricted class, cf. Aikhenvald & Dixon 2006), and are distinguished from other symmetrical serial constructions such as resultative constructions (in which neither V1 nor V2 belongs to a restricted class). I thank Jacqueline Gueron for directing my attention to this. Interested readers are referred to Lam (in prep.) for an initial investigation of Vietnamese serial verb constructions.

Second, it is also in favour of the configurational approach to unaccusativity, namely, unaccusativity of a verb is determined not solely by its inherent lexical specification, but also by the syntactic frame in which the verb occur (cf. Borer 1984, Van Hout 2004, Duffield 2011).

Third, the analysis helps to bring the gap between the two main approaches to unaccusativity in the literature (as summarised by Van Hout 2004): the aspectual approach, which views telicity as crucial in defining unaccusativity (cf. Tenny 1987, Van Hout 2004); and the thematic approach, which argues that the essential property of unaccusatives is that they lack external argument (Grimshaw 1990, Levin & Rappaport Hovav 1995, Reinhart 1996). From Vietnamese perspective, it is shown that both of the two factors can involve in structurally representing unaccussativity. Unaccusativity, on the one hand, is thematically-driven for a close inspection of Vietnamese 'làm' causative constructions reveals that a verb can be identified as unaccussative if it is unable to project a volitional Agent argument, and the highest argument position it can involve is the Inadvertent Cause. Unaccussativity, on the other hand, is also aspect-related for the Inadvertent Cause arguement of unaccusative predicates turns out to occupy the specifier position of the Inner AspectP (or TelicityP) projection inside the VP shells, a structural proposal initiated by Travis (2005, 2010) from Tagalog and Madagasy, and further supported from Vietnamese verb-telic particle constructions.

5.4 Extension

We have seen so far a list of different post-verbal particles which convey telicity of the predicate. At this point, one might wonder if there are more than one particle which competes for the Inner Aspect position, and whether they can co-occur? If they do, are there any co-occurrence restrictions between them? What else can this tell us about the VP internal structure? The purpose of this section, therefore, is to specify combinatorial properties of certain post-verbal aspectual morphemes with a hope to shed some more light on the extended VP shell in Vietnamese.

As shown previously, there are two main groups of telic particles: the completive particles 'ra' (out), 'thấy' (perceive), 'xong' (finish), 'hết' (end) for instance; and the resultative particles such as 'được' (obtain), 'phải' (must).[36] The two groups are not only semantically distinct (as seen from their names), but also are syntactically different, for only the completive group (though not all of its members) allow word-order alternations. Specifically, while the object can freely precede or follow the completive particles as shown in (46), repeated here as (48), resultative particles prohibit object raising. In the case of object shift, the aspectual reading of the resultative particles will be lost, as indicated in (49):

(48) a. Nó đã lau bàn **xong**
        3S ANT wipe table finish
        'He wiped down the table (He finished wiping the table).'

---

[36] As noted in another footnote, there exists particle which neither belong to the completive nor the resultative groups, for instance, the continuative 'lại' (again).

    b. Nó   đã   lau **xong** bàn.
       3S   ANT   wipe finsh table
       'He wiped down the table (He finished wiping the table).'

(49)   a. Cô   ấy   kiếm **được** việc
       3S   DEM seek obtain job
       'She found a job.'

    b. Cô   ấy   kiếm việc **được**
       3S   DEM seek job obtain
       'She can find a job.'

What interests me is that the two groups can in fact combine together in one sentence:

(50) Cuối cùng nó cũng lau   **xong được** cái bàn.
      Final   3S also wipe finish obtain CLS table
      'He finally finished wiping down the table.'

(51) Họ đã   tìm **ra**   **được** cách chữa bệnh   AIDS
      3P ANT find out obtain way treat disease
      'They have found the cure for AIDS.'

(52) Người đó có thể nhìn **thấy được** nỗi buồn trong mắt bạn
      Person DEM can look see obtain CLS sorrow in   eye 2S
      'That person can see the sorrow in your eyes.'

In all the above examples, resultative particles always follow the completive particles. Their precedence can lead to ungrammaticality:

(53) *Cuối cùng nó cũng   lau **được** **xong** cái bàn.
       Final   3S also wipe obtain finish CLS table
      'He finally finished wiping down the table.'

(54) *Họ đã tìm   **được** **ra** cách chữa bệnh   AIDS
      3P ANT find obtain out way treat disease
      'They have found the cure for AIDS.'

(55) *Người đó   có thể nhìn **được thấy**   nỗi buồn trong mắt bạn
      Person DEM can   look obtain perceive CLS sorrow in   eye 2S
      'That person can see the sorrow in your eyes.'

This might suggest that the Inner Aspect is extended and that the Resultative aspect is structurally lower than the Completive aspect, invoking a projection of an additional functional head inside the VP-shell.

Similarly, English also exhibits the resultative-last constraint, i.e., the resultative particle also cannot precede the directional particle phenomenon:

(56) a. 'He put the book back up on the shelf.'

b. '* He put the book up back on the shelf.'   (Nicol 2002:183-184)

This articulated structure is exactly what Nicol 2002 proposes on his Extended VP shell Hypothesis, in which there are two additional light heads w and x intervened between the v and V:

(57)
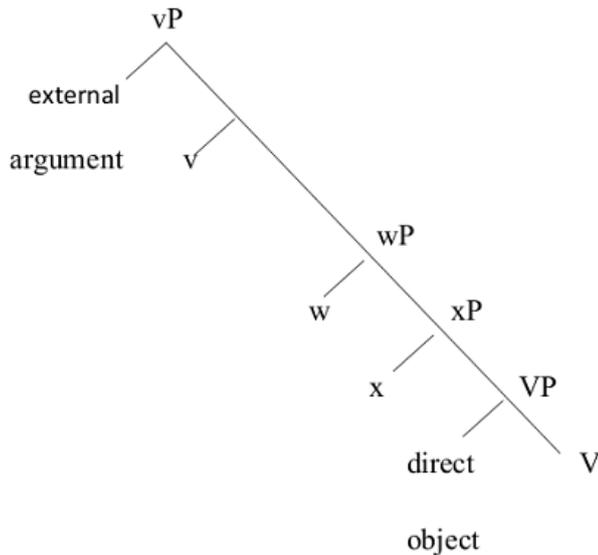
(Nicol 2002: 165)

This articulated VP structure finds further empirical support from thematic hierarchy of causative constructions as pointed out by Duffield (2011).

As seen from the tree in (42), both the non-volitional unaccusatives (as in 40a) and the uncontrolled unergatives (as in 40b) are put under the same slot of the non-intentional cause in [Spec, IAspP], which leads to a prediction that we cannot have a làm causative containing an unintentional cause DP1 and a non-volitional DP2. In other words, the following sentences are expected to be ungrammatical:

(58) a. 'Cơn gió   làm thằng bé ngã.'
        CLS wind   make CLS boy fall
        'The wind blew the boy over.'

b. 'Cái chuyện đó   làm thằng bé cười.'
        CLS story DEM   make CLS boy laugh
        'The story made the boy laugh.'
                                          (Duffield 2011)

However, the sentences in (58) are in fact absolutely acceptable. It suggests that we might need to project another head to host the additional specifier position. This is exactly the extended VP shell hypothesis offers us.

(59)

```
                    VP1
             ┌───────┴───────┐
         Causer            V1'
                      ┌──────┴──────┐
                     V1           AspP
                      │       ┌─────┴─────┐
                     làm     DP         Asp'
                          ┌───┴───┐  ┌────┴────┐
                       In.Cause  Asp         ?P
                                              │
                                             ?'
                                       ┌──────┴──────┐
                                       ?           VP2
                                                    │
                                                   V'
                                              ┌─────┴─────┐
                                             V2         (DP)
                                              │           │
                                            √verb       Theme
```
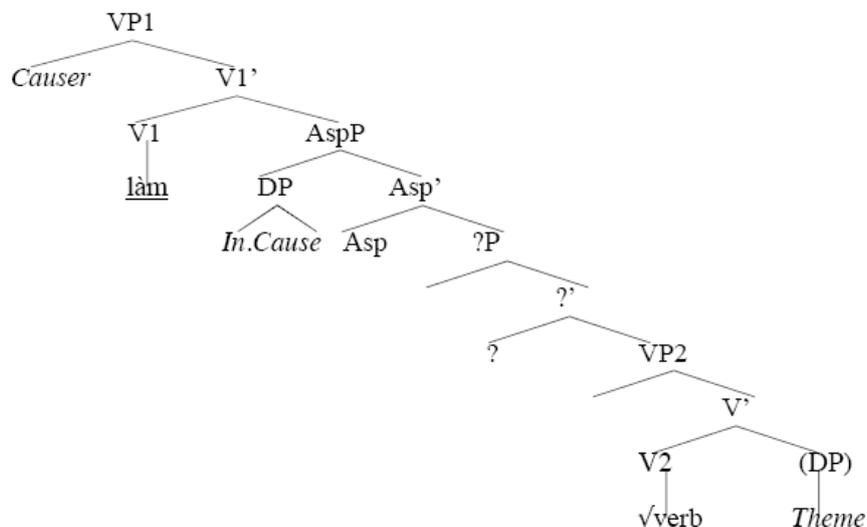
Again, we have obtained another piece of evidence to believe that the verb-particle and the causative constructions pattern together.

5.5 Conclusion

Putting these observations together, it is indicated that Inner aspect is syntactically represented in Vietnamese, and therefore supports the viewpoint that Outer Aspect and Inner Aspect are independent aspectual components and encoded in the syntax differently. One of the key notions in my approach to Inner Aspect is compositionality, which in general allows 'linguists to go beyond the morphological encoding of aspect that we find in Slavic' (Verkuyl et al 2005:2), and in particular, allows me to cover different things that play a role in calculating Inner Aspect in an analytic language like Vietnamese. Moreover, utilizing advances in recent syntactic theories, I have tried to incorporate this complex semantic information of Inner Aspect into a decompositional verbal structure, in which each head, depending on its syntactic position, has its own aspectual role, but together they all contribute to one single predicational unit. Thorough investigation of the distributional and interpretational properties of different types of aspectual complex predicates has led me to end up with a highly articulated VP structure. To this extent, Vietnamese data provides additional justification for the general cartographic approach to the VP structure. In addition, the realisation of Inner Aspect in Vietnamese helps to bring verb – particle constructions and complex causatives pattern together. Particularly, the former gives us hints to the head of the Inner Aspect Phrase, while the latter is a clue to the Specifier position of the Inner Aspect Phrase. The implication of this analysis is that complex predicate constructions in general always involve an Inner Aspect head, in other words, the Inner Aspect head is always activated even when it has no phonological realization.[37] These constructions, therefore are generally considered as 'aspect-related constructions' (Slabakova 2001), which are undoubtedly of empirical interest when applying into second language acquisition in order to see whether or not they are related manifestations of the same parameter value.

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[37] See Cheng & Sybesma (2004) for the same line of analysis in Cantonese.

Chapter 6: Comparison of Vietnamese and Chinese aspectual system

This chapter is devoted to a preliminary comparison of Vietnamese and Chinese systems of aspect markers; simultaneously it addresses the question of what semantic-syntactic components Chinese learners of Vietnamese need to acquire in order to ultimately achieve the knowledge of Vietnamese aspect, as well as the extent to which their L1 Chinese can aid them during the course of acquisition.

6.1 Outer Aspect

Before going into the comparison between Vietnamese and Chinese, let me summarise the main characteristics of Vietnamese Outer Aspect that any successful acquirers of Vietnamese must be aware of:

> (i) There are two types of Outer Aspect which are morphologically marked in Vietnamese: the anterior 'đã' and the durative 'đang'. 'Đã' is of special interest as it contains both tense and aspect components in its meaning.

> (ii) Semantically, 'đã' varies depending on what type of predicate it co-occurs.

> (iii) Syntactically, 'đã' loses its aspectual interpretation in negative contexts.

Let us now consider each of these points with respect to Chinese.

6.1.1 Overview of Chinese Outer Aspect system

Similarly to Vietnamese, Chinese is argued to project Outer Aspect as an independent functional category in the phrase structure, for Outer Aspect is morphologically expressed in this language (Chiu 1993, Li 1999). The literature of Chinese Outer Aspect has generally focused attention to four markers: *le, guo, zhe, zai* (see Chao 1968, Li &

Thompson 1981, Shi 1990, Smith 1997, Li 1999, Klein et al. 2000 just to name a few). Despite remarkable debate on the precise interpretation and function of each element, a standard assumption has been held that Chinese also has two main types of Outer Aspect: the perfective-like 'le' and 'guo', and the imperfective-like 'zhe' and 'zai'. Regarding the imperfective group, the two markers are traditionally distinguished by the verb types to which they attach: 'zai' is not compatible with homogeneous states whereas 'zhe' is. According to Klein et al (2000), if a verb can be interpreted either dynamic or static, the former reading is gained by the addition of 'zai', while the latter is brought out by 'zhe', as illustrated in (1):

(1)   Chinese :
         a. 'Lisi zai chuan yi-jian qunzi.'
                 ZAI put-on one- CLS skirt
              'Lisi is putting on a skirt.'

         b. 'Lisi chuan-zhe yi-jian qunzi.'
                 wear-ZHE one- CLS skirt
              'Lisi wears a skirt.'   (Klein et al 2000:726)

Within the perfective group, 'le' differs from 'gou' in that 'le' signals a currently relevant result state, whereas 'guo' implies that that the situation no longer holds, as shown in the contrast in (2):

(2)   Chinese :
         a. 'Lisi da-po-le   yi-ge   beizi.'
                  hit-break-LE one- CLS cup
              'Lisi broke one cup.'[1]

         b. 'Lisi da-po-guo   yi-ge beizi.'[2]
                  hit-break-GUO one- CLS cup
              'Lisi once broke a cup.'   (Examples of Klein et al 2000:725)

I adopt Lin (2005)'s analysis of the semantic contents of these aspectual morphemes as Lin also applies Klein's relational theory of tense and aspect to Chinese.

According to Lin (2005), 'guo' requires that the time of the situation is included within the topic time, which in turn precedes the default utterance time.

To illustrate, I schematize this description as in (3):

(3)   ++++[+++++++]+++++++++
              TSit included in TT,   TT   <   TU

---
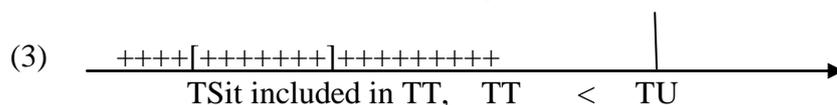
[1] In Chinese, 'le' can either appear in post-verbal or sentence-final position. Also note that, the post-verbal 'le', according to Sybesma (1997), Tang (1997), can function as either a perfect aspect marker or a resultative verb. In the former use, 'le' is an instantiation of Outer Aspect, while in the latter use it can be considered as belonging to a set of Inner Aspect markers. One example of 'le' as a resultative verb can be seen in (i):
(i) 'Wo xiang mingtian mai-le   nei liang che.'
      1s   plan tomorrow sell-off DEM CLS car
' I plan to sell off that car tomorrow' (Bisang's example 2004:129)
[2] According to Gu (1995), Chinese has two 'guo's, one is a fully-fledged verb meaning 'spend time' and the other is an aspect marker. It is the latter that is of concern here.

'le', on the one hand, also requires that the time of the inner stage of the situation is included within the topic time TT_1, which in turn is prior to the default speech time, and on the other hand, further requires that the time of the result state of the situation includes the topic time TT_2.

(4)

$$++++[+++++++]+++++++++++++[++++++]$$

TSit$_i$ included in TT_1,   TSit$_f$ included in TT_2 $<$ TU
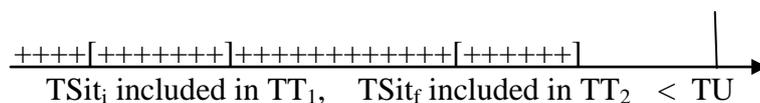
An assumption of this analysis is that the inner stage and the result state of a situation might have different topic time, i.e., the time at which they are asserted to be true.[3]

These generalizations are argued to capture all the intuitions about the 'past reading' (which says that the eventuality modified by 'guo' always occur in the past) and 'discontinuity effect' (which says that the result state may not hold at the utterance time) of 'guo'; and also nicely account for the 'current relevance' (which says that the result state holds at the utterance time) of 'le'.[4]

What is really crucial here, however, is that Lin's scrutinised description of 'le' and 'guo' reveals similarity to Vietnamese 'đã', they contain both tense and aspect (in the sense of Klein's 1994) components in their meaning, for their semantics must be captured using all three temporal parameters (situation time, utterance time and topic time). That is to say, although the semantics of the Vietnamese 'đã' is shown to be quite complicated, it should not be a problem for Chinese learners due to their L1 background.

What also worth mentioning is the distribution and the morphological status of these markers in comparison to Vietnamese counterparts.

Unlike 'đã' and 'đang' in Vietnamese, which all precede the main verb of the sentence, most of the Chinese markers follow the verb with only one exception of pre-verbal 'zai'.

(5)   Vietnamese:

    a. Tôi **đã**   thu dọn hành lý.   preverbal
       1S ANT   pack   luggage
       'I have packed the luggage.'

    b. Tôi **đang** thu dọn hành lý.   preverbal
       1S   DUR   pack   luggage
       'I am packing the luggage.'

(6)   Chinese:[5]
    a. Wo   mai **le** san zhang piao.   postverbal
       1S   buy LE three CLS ticket
       'I have bought three tickets.'

---

[3]Unless when there is an overt temporal adverb, the topic times for the inner stage and the result state are the same ($TT_1=TT_2$), i.e. the time indicated by the temporal adverbial. See Zagona (2007) for a similar statement that the topic time (or the reference time in Zagona's terminology) is complex in itself.

[4] The reader is referred to Lin (2005) for detailed discussion.

[5] The Chinese examples in (6) and (8) have been kindly provided by Phạm Thị Thu Hà along with extremely helpful comments.

b. Wo   jian **guo**   ta le.   postverbal
    1S   meet GUO PRN LE
    'I met him before.'

c. Ta   kan **zhe**   wo shuo...   postverbal
    3S   look K ZHE PRN say
    'He looked at me and said...'

d. Wo **zai** shoushi xing li.   preverbal
    1S ZAI pack luggage
    'I am packing the luggage.'

Moreover, 'đã' and 'đang' do not necessarily immediately precede the verb (as adverbs can intervene between them); whereas three out of four Chinese aspect markers 'le', 'guo', 'zhe' must attach to the main verb with nothing in between (only 'zai' is detachable from the verb):

(7)   Vietnamese:

a. Tôi **đã gấp rút** thu dọn hành lý.   đã-adverb-verb
    1S ANT hurry pack luggage
    'I hurriedly packed the luggage.'

b. Tôi **đang gấp rút** thu dọn hành lý   đang-adverb-verb
    1S DUR hurry pack luggage
    'I am hurrily packing the luggage.'

(8)   Chinese:

a. Wo **gang** kan **le** Hong lou meng   zhe ben xiaoshuo   adverb-verb-le
    1S just read LE   DEM CLS novel

b. *Wo kan **gang le** Hong lou meng   zhe ben xiaoshuo   *verb-adverb-le
    1S read just LE   DEM CLS novel
    'I have just read the novel 'Hong lou meng'.

c. Taiyang **manman de** zou **guo** yi duo yun   adverb-verb-guo
    Sun   slow ADV.ly go GUO one CLS cloud

d. * Taiyang zou **manman de guo** yi duo yun   *verb-adverb-guo
    Sun   go slow ADV.ly GUO one CLS cloud
    'The sunlight slowly went through a cloud.'

e. Ta   zai **jingjing de**   kan **zhe** shu   adverb-verb-zhe
    3S ZAI quite ADV.ly read ZHE book

f. * Ta   zai kan **jingjing de**   **zhe** shu   *verb-adverb-zhe
    3S   ZAI read quite ADV.ly ZHE book
    'He is quitely reading books.'

  g. Tai **zai yiban** **qiao** zhe niujiao yibian chang ge
    3S ZAI meanwhile knock ZHE buffalo.horn meanwhile sing song
    'He was knocking on the buffalo's horn as he was singing.'

<div align="right">zai-adverb-verb</div>

The lack of adjacency requirement in Vietnamese suggests that those aspectual markers are free morphemes, whereas the non-detachability of Chinese aspectual markers from the main verb indicates that they are bound morphemes, with only one exception of the morphologically free imperfective 'zai'.[6]

In brief, Outer Aspect is morphologically overt in both Vietnamese and Chinese. Those markers are morphologically free in Vietnamese, but morphologically bound in Chinese. We will return to it shortly to see how morphology drives syntax in the two languages.

Despite the morphological difference between Vietnamese and Chinese Outer Aspect, what really matters here is to what extent, the main semantic and syntactic properties of Vietnamese Outer Aspect system are shared by Chinese Aspect system.

The Vietnamese 'đã' is of special interest for semantically, 'đã' varies depending on what type of predicate it co-occurs; and syntactically, the aspectual 'đã' is incompatible with negation. I will show that these characteristics are widely shared by Chinese.

6.1.2 Interaction between Outer aspect marker and the arktionsart

As pointed out in previous chapters, depending on the aktionart of the main predicate, the Vietnamese 'đã' can either indicate the completion or termination or inchoation of the situation. The semantic variability of the Vietnamese 'đã' is shared by the Chinese 'le'.

In an achievement sentence, i.e., where the situation described by the predicate has an inherent endpoint, 'le' marks the completion of the situation, as in (9):

(9) Chinese:
  'Tamen ganggang daoda le shan-ding.'
  3p just   reach LE mountain-top
  'They just reached the top of the mountain.'

<div align="center">(Soh & Gao 2006:108)</div>

It is well-reported that with accomplishments, 'le' indicates that the situation is simply stopped, and is needlessly completed:

(10) Chinese:
  Wo zuotian xie le yi-feng xin, keshi mei xie-wan
  1s yesterday write LE one-CLS letter but not write-finish
  'I started writing a letter yesterday, but I didn't finish writing it.'

---

[6] Please note that unlike Mandarin Chinese, Cantonese strictly adheres to the strategy of suffixing aspect markers to the main verb. All the aspectual markers in Cantonese are suffixal. However, this dialectal variation does not affect the analysis presented here.

When the predicate represents a situation which lacks natural endpoint like activities, 'le' designates that the event occurred and stopped at some point, but leaves open the completion of the situation, as in (11) (see Li and Thompson 1981, Smith 1997, Klein at al 2000):

(11) Chinese:
      'Xiao yazi you –le yong.'
      duckling swim- LE stroke
      'The duckling swam.'
                              (Klein 2000 et al:724)

Similar to 'đã', 'le' can also signals the inception of a stative situation:

(12) Chinese:
      Ta pang-le
      3s fat- LE
      'She became fat.'

In brief, the semantics of 'le' is also sensitive to the situation type of the predicate.

6.1.3 Restriction of Negation to Outer Aspect

Mandarin Chinese is also well reported regarding the mutual exclusiveness of the neutral negative marker 'bu' with the aspectual markers 'le' and 'guo':

(13) Chinese :
    a. 'ta qu   le faguo.'
       3s   go   LE France
       'He went to France.'

    b. '* ta bu qu   le faguo.'
       3s   NEG go   LE France
       'He did not go to France.'

(14) Chinese:
    a. 'ta   qu guo faguo.'
       3s   go GUO France
       'He has been to France once.'

    b. '* ta bu   qu guo faguo.'[7]
       3s NEG   go GUO France
       'He has not been to France once.'
                       (Li 1999:235)

The aspectual marker 'le' does not occur in negative sentences. Instead, the negative existential 'mei-you' is used preceding the verb:

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[7] As already noted in chapter 4, 'guo' is perfectly fine with other negation markers such as 'mei' and 'meiyou'

(15) Chinese :
     a. ' * Wo bu mai-le   na-ben shu.'
       1S not buy-LE   DEM-CLS book

     b.   'Wo mei-you   mai na-ben shu.'
       1S   not-have   buy DEM-CLS book
       'I did not buy that book.'

In Vietnamese, although the co-occurrence of 'đã' and the negator 'không' does not result in ungrammaticality, it results in interpretive failure, namely, the aspectual interpretation of 'đã' is lost:

(16) Vietnamese:
     a. Tôi   đã   mua cuốn sách đó
       1S   ANT   buy CLS book DEM
       'I bought this book.'
       OR: 'I have bought this book'

     b. Tôi đã   không mua cuốn sách đó
       1S ANT NEG buy CLS book DEM
       'I did not buy this book.'
       NOT:'I haven't bought this book.'

However, what is crucial here is that both Vietnamese and Chinese Outer Aspect share the same intervening effect with Negation. Particularly, when the sentence is negated, the aspectual interpretation is blocked. It might suggest that the two languages share the same underlying phrase structure as follows:

(17)

```
              TP
          ⟋      ⟍
        T          NegP
              ⟋      ⟍
           Neg        OAspP
                   ⟋    ⟍
               OAsp
```
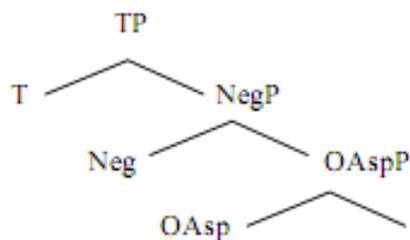
The question is if we assume that all the aspectual markers are base generated in OAspP in the two languages, how to capture the cross-linguistic distributional difference of these markers. Given that the phrase structure is shared by both Vietnamese and Chinese as above, the fact that all the aspectual markers in Vietnamese and 'zai' in Chinese precede the main verb comes out straightforwardly. So, we are left with how to account for the post-verbal position of three aspectual markers in Chinese. I do not intend to provide an analysis of Chinese Outer Aspect, but only report what has been proposed in the literature (see Chiu 1993, Ernst 1995, Gu 1995, Li 1999). There are (at least) three different proposals regarding the syntactic behaviour of Chinese aspectual suffixes.

On a verb-raising account, the surface word order derives as a result of the verb movement to the higher Asp node. The idea is that since 'le' is affixal in nature and therefore allows verb movement to it.

On the other hand, Chiu (1993) offers an affix-lowering account in which aspect markers in Asp move lower and right-attach to the verb at s-structure.

Li (1999), on an Minimalist account along the line with Ernst (1995), Gu (1995), proposes that while only the aspectual particle 'zai' is initially merged in $OAsp^0$, other three aspectual suffixes are base generated on the verbs, and then the inflected verbal complex [V+ OAsp] raise to OAsp at LF.

Whatever the explanation, the intuition is the same: the movement either of the verb or of the aspect marker, either at s-structure or at LF, is motivated by morphological reason, to provide a host for the bound aspectual morphemes. At this point, Chinese provides firm grounds to believe the morphological nature of a functional head can have significant syntactic consequence.

6.2 Inner Aspect

Before going into the comparison between Inner Aspect of the two languages, one should acknowledge that the projection of Vietnamese Inner Aspect involves a cluster of properties:

> (i) Telicity in Vietnamese is mostly computed by a group of telic particles which closely combine to the main verb.

> (ii) The cardinality of the DP object can also contribute to the telicity interpretation of the whole sentence.

> (iii) In the verb-particle constructions, the particle can put some constraint on the definiteness of the moved object.

> (iv) In the causative constructions, there is a structural hierarchy between Intentional Causer and Inadvertent Cause.

All of these characteristics together are indicators of the existence of a VP-internal aspectual head in particular and of the articulated structure of the VP shell in general. I will show what is and is not shared by Chinese.

6.2.1 Post-verbal aspectual elements

Chinese is well known for its overt marking of telicity (Sybesma 1999, Smith 1997, Soh & Kuo 2005). Rather than mostly encoding telicity in the verbal root like Bulgarian, English; Chinese telic verbs are expressed in the form of resultative compounds.

Chinese recruits a rich system of resultative verbs, which, according to Lin (2004), can be split up into two main types: the literal resultatives, where V_2 and the direct object constitute a predicative structure, as shown in (18); and the phase resultatives, where the V_2 is semantically obscured but mainly functions to mark the boundaries of the event.

(18) Chinese:
Wusong da si le laohu
        hit die LE tiger
'Wusong beat the tiger to death.'

Only the Chinese phase resultatives can be equivalent to Vietnamese verb- telic particles. Here are some popular phase complements:

(19) cheng `success'
    cuo   `wrong'
    dao   `arrive'
    diao   `drop'
    hao   `good'
    wan `finish'

                              (Lin 2004:93)

(20) wan (finish)
    chang wan: sing finish   'finish singing'
    nian wan: study finish   'finish studying'
    nong wan: do finish   'finish doing'
    tuo wan: take-off finish 'finish taking off'

(21) 'dao' (arrive)
    kan dao: see arrive   'succeed in seeing'
    zhao dao: search arrive 'succeed in searching'

(22) 'hao' (good)
    xie hao: write good   'complete the task of writing'
    suan hao: calculate good 'complete the task of calculating'

(23) 'zhao' (be on target)
    zhao zhao: search on-target 'find'
                     (Li&Thompson 1981:65-66)

Phase resultatives, according to Chao (1968:446), 'express the phase of an action in the first verb rather than some result in the action or goal.' For instance, in (24), the secondary verb 'hao' ('good') is not used to express the result state of the homework:

(24) Chinese:
    'Lisi zoutian   yijing zuo hao le   gongke.'
       yesterday already make good LE homework
    'Lisi already finished the homework yesterday.'
                        (Lin 2004:92)

More importantly, phase resultatives are telic; they guarantee that the end point of the situation cannot be cancelled.

6.2.2 The aspectual contribution of the DP object

Similar to Vietnamese, in Chinese the perfective accomplishment sentence must be telic with a numeral object, but not with a demonstrative object.[8]

(25) Chinese :
    a. '* Ta chi-le   liang-ge dangao , keshi   mei chi-wan.'
         3s eat- LE two CLS   cake,   but   not eat-finish
        'He ate two cakes, but he did not finish them/it.'
    b.   'Ta chi-le   na-ge   dangao, keshi mei chi-wan.'
         3s eat- LE that- CLS   cake   but not eat-finish
        He ate that cake, but he did not finish them/it.'   (Soh & Kuo 2005:204)

6.2.3 The definiteness restriction of the raised DP object

As discussed at length in chapter 5 (section 5.1.2), there is an effect of word order on the definiteness of the NPs in Vietnamese verb- telic particle constructions, that is, whereas the post-particle object can be either definite or indefinite, the pre-particle object cannot be indefinite.

Chinese also exhibits a tendency to place indefinite NPs lower than definite NPs, as noted by Li & Thompson (1975) in (26) and (27):

(26)   Nouns preceding the verb tend to be definite [strong], while those following the verb
       tend to be indefinite [weak]   (Li & Thompson 1975:170)
(27)   The noun in postverbal position will be interpreted as indefinite [weak] unless it is
       morphologically or inherently or non-anaphorically definite [strong].
               (Li & Thompson 1975:173)   (cited from Sybesma 1999:171-172)

The tendency is demonstrated in (28), where the indefinite object tends to follow the verb as in (28a)[9]:

(28)   Chinese:
    a.   Wo   bu   mai zhu le
          1S   NEG buy pig LE
          'I don't buy any pigs anymore.'

    b.   Wo   zhu mai-le
          1S   pig   buy-LE
          'I bought the pig.'   (Cited from Sybesma 1999:171)

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[8] See Soh&Kuo (2005) for extensive discussion on Chinese DP.

[9] See Qu (1994) for other supporting evidence for the effect of word order on the DP's definiteness in Chinese.

As already shown in chapter 5, this tendency is found in other languages such as English and Russian[10].

Although object can move both in Chinese and Vietnamese, the difference between Chinese and Vietnamese is that while the Chinese DP object moves out of the VP shell to a higher position (to the left of V) as shown in (28) above; in Vietnamese, the object only moves within the VP shell (across the particle, but still to the right of V) (as illustrated in 29 below):

(29)   Vietnamese:

   a.   Tôi nướng **xong** cái   bánh rồi
         1s   bake   finish CLS   cake already
         'I have already finished baking the cake.'

   b.   Tôi nướng cái   bánh **xong**   rồi
         1s   bake CLS   cake finish already
         'I have already finished baking the cake.'

Rint Sybesma (p.c.) suggests that the movement of Chinese DP object into the left periphery relates to topicalisation, but it is not the case for Vietnamese. Although there are questions as to what position is involved and why the DP object moves, what is crucial is that in both Chinese and Vietnamese, the moved DP object can only be definite.

Two questions are raised. First, if these constructions involve object shift, one might want to know where exactly the object moves to. Second, how to account for the definiteness restriction of the moved object structurally?

Regarding the first question, it is often claimed that there is a correlation between the moved NP and an additional functional head in the structure, although different accounts are suggested with regard to what exactly this head is. The work of Chomsky (1989), Mahajan (1992), Ritter & Rosen (2000), etc. argue that this head has something to do with Case and Agreement (i.e., the object raises to [Spec, AgrOP]) and these studies make a parallel between subject and object agreement in the structure, as shown in (30):

(30)

(Mahajan 1992:11)

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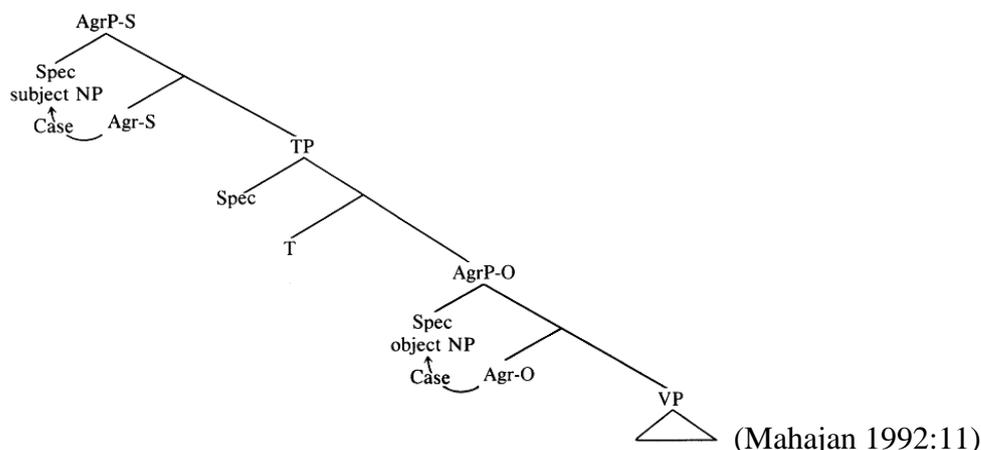
[10] See Lee (2000) for a similar observation in Korean.

On the other hand, people like Travis (2010) argue that this head relates to aspect, but differs from the familiar IP-internal Aspect node, for this aspectual head is projected inside the VP shell.[11]

The two models, despite the difference in exact details of the range of the functional projections, share the same insight that object movement is an indicator of a more articulated phrase structure as there must be some functional head which is responsible for the object movement.

Concerning the second question there are two relevant accounts: Mahajan (1991, 1992) and Cheng et al (1997). Mostly relied on Hindu, Mahajan (1991) explains the definiteness restriction by differentiating the positions in which the object NPs receive a structural Case. Accordingly, nonspecific/indefinite objects receive a structural Case directly from the verb, specific/definite objects, on the other hand, receive a structural Case from Agr-O as shown in (31), (32). Therefore, only specific object can undergo movement, and the indefinite object must stay low in the structure.

(31)
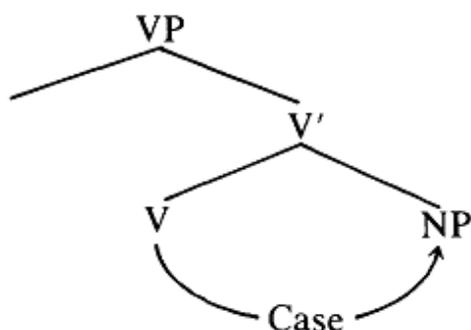
(32)
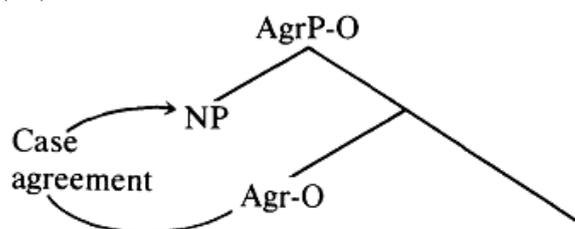
(Mahajan 1992:12)

Working largely with Chinese, Cheng et al (1997) also suggests that the definite objects and indefinite objects are projected in different positions: definite NP occupies the specifier position of the VP (outside of the V' level) and indefinite appears in the complement of the VP (within V'):

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[11] See chapter 2 for detail.

(33)
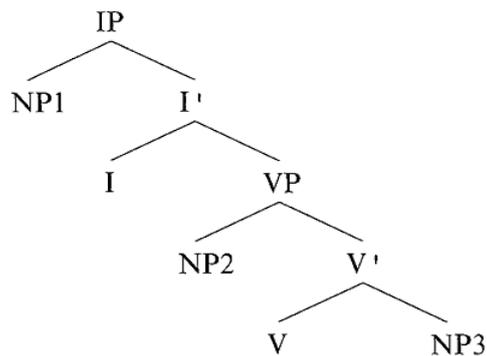
```
                    IP
                  /    \
               NP1      I '
                      /    \
                    I       VP
                          /    \
                       NP2      V '
                              /    \
                            V       NP3
```
                                              (Cheng et al 1997)

What remains the same in both studies is that the definiteness restriction is explained hierarchically, i.e., the indefinite object is projected lower than the definite object in the structure.

6.2.4 Causatives

If the first three properties are largely shared by Chinese, it is the last characteristic that is the locus of the difference between the two languages. Chinese departs from Vietnamese in how the causative constraint is realized.

In this thesis, we adopt a distinction due to Cheng et al (1997), within the group of verb incorporation constructions (or RVC, resultative verb compound in other studies) between AGENTIVE constructions and CAUSATIVE constructions: this distinction helps us to account for the cross-linguistic variation observed between the two languages. Consider the examples in (34)-(35) below: whereas the counterpart of Mandarin Agentives can be readily found in Vietnamese (compare the (a) examples in (34) and (35), (non-agentive) Mandarin (theme) causatives of the kind discussed in Cheng et al (1997) that are totally unacceptable in Vietnamese—compare the (b) examples in (34) and (35)):

(34) Chinese :
      a. 'Ta da-si   tamen le.'   Agentive constructions
          3S hit-dead 3p   LE
          'He hit them dead.'

      b. 'Zhe-jian shi   lei-si   tamen le.'   Causative constructions
          this- CLS matter tired-dead 3p   LE
          'This matter tired them to death.' (Chinese example from Cheng, et al 1997: 201)

(35) Vietnamese:
      a. Hắn đánh chết họ luôn.
          3S hit   dead 3P PRT
          'He hit them dead.'

      b. *Vấn đề này mệt chết họ luôn
          matter DEM tired dead 3P PRT
          'This matter tired them to death.'

In this thesis, we are primarily concerned with the contrast in causative constructions.

One of the well-observed characteristics of the formation of causative constructions in English is that an unaccusative verb can be causativized by simply adding an external Causer argument:

(36) a. The window broke   Unaccusative

      b. They broke the window. Causative

Chinese seems to allow this unaccusative-causative alternation too:

(37) Chinese:
      a. 'Zhangsan   lei-si-le.'
                       tired-dead-LE
       'Zhangsan tired to death.'

      b. 'zhe-jian   shi   lei-si-le   Zhangsan.'
         DEM-CLS   thing tired-dead- LE
         'This thing tired Zhangsan to death.'   (Huang 2006:7)

In case of Vietnamese, this sort of causativisation is totally disallowed:

(38) Vietnamese:
      a. Zhangsan mệt chết luôn
                 tired dead PRT
       'Zhangsan tired to death.'

      b. *Vấn đề này mệt chết Zhangsan luôn
         Matter   DEM tired dead   PRT
         'This matter tired Zhangsan to death.'

The well-formed version of (38b) must be (39) when an overt causative verb is inserted:

(39) Vietnamese:
      Vấn đề này làm   Zhangsan mệt chết luôn
      Matter DEM make   tired dead PRT
   'This matter made Zhangsan tired to death.'

According to Cheng et al (1997), Mandarin Chinese derives causatives lexically, i.e., the predicate 'tired-dead' is lexically causative, therefore is based generated in V1.

(40)
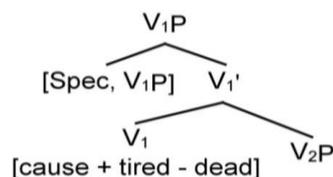
In contrast, Vietnamese causatives are derived syntactically: [tired-dead] is based generated in V2, and an overt causative morpheme is inserted to V1:

(41)

```
                    V₁P
                   /    \
          [Spec, V₁P]    V₁'
                        /   \
                      V₁     V₂P
                   [cause]  /   \
                    'làm'  /     \
                   [Spec, V₂P]   V₂'
                              /      \
                            V₂       [Comp, V₂P]
                        [tired - dead]
```
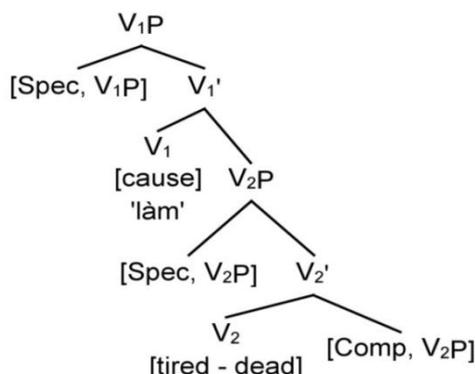
In brief, a division between lexical vs. syntactic causatives is made between Mandarin Chinese, on the one hand, and Vietnamese on the other hand. Vietnamese seems to be the more 'transparent' language.

The distributional consequence of this difference is that in causative constructions in Mandarin and Cantonese, the lower predicate (V2) invariably appears adjacent to the causative predicate (V1), and to the left of its own argument (DP2) as shown in (44) and (45) below; thus, these languages never show the alternations observed in Vietnamese whereby DP2 may occur preceding or following V2 depending on its thematic interpretation, as illustrated in (42) and (43):

Vietnamese: Chinese:[12]

(42) a. Tôi làm thằng bé ngã   (44) a. Wo rang zhe nanhai diedao[13]
          1s make CLS boy fall   1s make this boy   fall
          'I made the boy fall.'   'I made the boy fall.'
      b. Tôi làm ngã thằng bé   b. * Wo rang diedao zhe nanhai
          1s   make fall CLS boy   1s   make fall   this boy
          'I made the boy fall.'   'I made the boy fall.'

(43) a. ! Tôi làm thằng bé nhảy   (45) a. Wo rang zhe nanhai tiaowu
          1s make CLS boy dance   1s make DEM boy dance
          'I made the boy dance.'   'I made the boy dance.'
      b. * Tôi làm nhảy thằng bé   b.*Wo rang tiaowu zhe nanhai
          1s make dance CLS boy   1s make dance DEM boy
          'I made the boy dance.'   'I made the boy dance.'

---

[12] Chinese examples in (44) and (45) along with grammatical judgments are kindly provided by Wei Ku

[13] According to Rint Sybesma (p.c.), Mandarin has several types of causatives, most relevantly the 'ba' (take) causatives and the 'rang' (let) or 'shi' (make) causatives. The distinction between 'ba'-causatives and 'rang'-causatives is that the former is a mono-clausal while the latter is bi-clausal. Crucially, only 'ba'-causatives structurally distinguish between unaccusatives and unergatives (i.e., only unaccusatives are embedded under 'ba'-causatives) (see Sybesma 1999 for detail). That is to say, the Chinese 'ba'-causatives is a better counterpart of the Vietnamese 'làm'-causatives. However, even in the 'ba'-causatives, there is no word order alternation observed in Vietnamese, so the contrast between Vietnamese and Chinese is still preserved.

Even though the distinction between unaccusatives and unergatives is both syntactically real in Vietnamese and Chinese[14], there is more freedom in word order alternation in the causative constructions in Vietnamese than is possible in Chinese.

6.3 Conclusion

It has been proposed that there is no significant cross-linguistic variation in the basic cartography: the grammars of Vietnamese, Chinese are both constrained by the same underlying syntactic structure. What varies parametrically is reduced to lexical-morphological factors, namely the morphological status of the Aspect markers (whether they are bound morphemes or free morphemes), and the degree of lexicalization (which sub-parts of the phrase-marker are combined in the lexicon ('l-syntax', Hale & Keyser 1993) and inserted as integral lexical items. This view of language variation can be seen from the previous work of Fukui (1986), Cheng (1991), Huang (2006), Huang et al (2009). While this discussion has uncovered a vast range of interesting points of comparison and contrast between Vietnamese and Chinese aspectual systems, we are only targeting Inner Aspect-related constructions in the experiments, leaving other Outer Aspect-related properties for future research.

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[14] Please note that Chinese also marks intentionality in a different construction, namely the Agentive constructions, where the secondary verb cannot be an one with an intentional cause.

(i) Chinese:

 a. 'tamen za-sui/peng-diao-le yi-kuai boli.'

    3p smash-break/knock-fall-le a-CLS glass

    'They smashed/knocked to the ground a piece of glass.'

b. '*tamen qi-han/da-tiao/dou-chang-le na-ge moshengren.'

   3p infuriate-yell/hit-jump/cheer-sing-le that- CLS stranger

<div align="right">(Huang et al 2009:59)</div>

This property, however, is also shared by Vietnamese.

(ii) Vietnamese:

 a. Họ đánh vỡ cái ly.

    3P hit break CLS glass

    'They broke the glass.'

b. *Họ đánh nhảy anh ta.

    3P hit jump PRN

Chapter 7: L2 Chinese Acquisition of Vietnamese Inner Aspect-related Constructions

7.1 What is to be investigated in the experiments?

Among several Aspect-related properties shared by, or distinguishing Vietnamese and Chinese, we have selected two kinds of subtle grammatical constraints to investigate experimentally:[1]

(i) a constraint on the interpretation of telicity triggered by particular kinds of object noun-phrase in perfect sentences, and illustrated in (1) below

(ii) a constraint on the placement and interpretation of the subject of unaccusative *vs.* unergative predicates embedded under the simple causative verb *làm*, as shown in (2) and (3), respectively

where the former constraint is shared by Vietnamese and Chinese, while the latter distinguishes the two grammars:

(1)   a.   !Nó đã ăn cái bánh đó nhưng chưa xong.
               3S ANT eat CLS bread DEM but NEG$_{PERF}$ finish
               'He started eating that cake but hadn't finished it.'
               (Lit. ??They ate that cake, but didn't finish).'

---

[1] The acquisition of other Aspect-related properties must be left for future research.

     b.   ??Nó đã ăn ba   cái   bánh nhưng chưa   xong**.**
         3S   ANT eat three CLS cake but   NEG$_{PERF}$ finish
         '??He ate three cakes but didn't finish.'

(2)   a.   Nó làm   gãy   cái que.
          3S   make break CLS stick
          'He broke the stick.'

      b.   *Nó làm   cho gãy   cái que.
           3S   make give break CLS stick
           'He broke the stick.'

      c.   ?Nó   làm   cái que   gãy.
           3S   make CLS stick break
           'He broke the stick.'

(3)   a.   *Anh làm   nhảy cô   gái.
          3S   make dance PRN girl
          'He made the girl dance.'

      b.   Anh làm cho cô   gái nhảy.
           3S   make give PRN girl dance
           'He made the girl dance.'

      c.   ?Anh làm   cô   gái nhảy.
           3S   make PRN girl dance
           'He made the girl dance.'

The object of grammatical interest in the examples (1a) and (1b) is found in the contrast between the two sentences, where the only difference between them lies in the quantification of the object NP in the first clause. Whilst non-quantified objects, such as the demonstrative NP *cái bánh đó*, do not inherently alter the (atelic) interpretation of the verb-phrase, quantified objects, including those modified by numeral quantifiers such as *ba* ('three') as in (1b) – *do* activate a shift in interpretation, such that the first clause in (1b) is obligatorily perceived as telic, forming an overall contradiction when it is asserted that the eating was not complete.[2] [3] This constraint is shared by Chinese, as in (4) and (5):

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[2] Pointing out the role of the DP object in the interpretation of telicity is our theoretical contribution to the literature on Vietnamese Aspect, as this has been almost ignored in previous studies. Although various authors including Cao (2000), Nguyễn Văn Thành (2003), and Fukuda (2007) have mentioned the significance of post-verbal telic particles in turning activities into achievements, such as 'ra' (e.g. tìm – 'to look for' *vs.* tìm ra – 'to find'), 'thấy' (nghe – 'to listen' vs. nghe thấy – 'to hear'), none of these researchers has connected the quantification of the object to the lexical aspect of the whole predicate. See chapters 2 and 3 for detailed discussion.

[3] Another interesting grammatical property of (1) is that it provides another piece of evidence in favour of the view that the preverbal aspectual morpheme *đã* is a marker of anteriority, rather as than a perfective marker: specifcally, *đã* indicates only that an event or situation has started prior to the reference time, but does not entail any completion meaning (see chapter 4 for more detailed discussion); as a result, the combination between the first clause of (1a) and the non-completion clause ('but didn't finish') is fine, although not all speakers of Vietnamese agree so (hence the exclaimation mark). In fact, the experiment result which will be reported later suggests that demonstrative objects in 'đã' sentences are still preferably interpreted as completed. Despite of that, one thing should be clear that while 'đã' sentences with demonstrative objects can

(4)   '* Ta chi-le   liang-ge dangao , keshi mei chi-wan.'
      3s eat-LE two-CLS cake,   but   not eat-finish
      'He ate two cakes, but he did not finish them/it.'

(5)   'Ta chi-le   na-ge dangao,   keshi mei chi-wan.'
      3s eat- LE that- CLS cake   but   not eat-finish
      'He ate that cake, but he did not finish them/it.'   (Soh & Kuo 2005:204)

As for the causative examples in (2), these once again demonstrate important minimal contrasts in Vietnamese grammar. The first observable contrast in (2) is that of the two forms of causative construction. The first, 'simple causatives' which are presented by the analytic causative verb *làm* and the second, 'complex' or 'double causatives' are presented by *làm cho*. This distinction between the two types of construction depends on the position of the embedded subject DP$_2$. Unaccusative DP subjects, that is to say, arguments interpreted as Themes as opposed to (intentional) Agents, typically follow the embedded predicate in simple causatives as in (2a), which are most typically preferred to the preverbal placement order seen in (2c). The *làm cho* construction, conversely, does not allow the inverted word order V$_2$ DP$_2$ as indicated by the unacceptability of (2b). The second observable contrast between the two examples in (2) and (3) show the DP$_2$ subjects of *unergative predicates*, that is to say, arguments thematically interpreted as volitional or controlling Agents, do not have the ability to appear in this inverted position; compare (2a) *vs.* (3a). The examples show the general absence of unergative predicates from simple *làm* construction. This is unless, as we see in (3c), the subject DP$_2$ is somehow interpreted as non-volitional. Whereas in (3b) with *làm cho* is interpreted much as in the English translation, the slightly anomalous example (3c) carries the implication that the girl's dancing was not internally controlled but externally; (perhaps her legs were moved by the person denoted by the higher subject DP$_1$ (anh)). This constraint on causative constructions is not shared by Chinese, as shown in (6) and (7), the V$_2$ invariably follows the object no matter what thematic roles the object bears:

(6)   a. Wo rang zhe nanhai diedao
          1s   make DEM boy   fall
          'I made the boy fall.'

      b. * Wo rang diedao zhe nanhai
          1s   make fall   DEM boy
          'I made the boy fall.'

(7)   a. Wo rang zhe nanhai tiaowu
          1s   make DEM boy dance
          'I made the boy dance.'

      b. *Wo rang tiaowu zhe nanhai
          1s   make dance DEM boy
          'I made the boy dance.'

---

be possibly ambiguous between telic and atelic reading, 'đã' sentences with numeral objects must be interpreted as telic.

Also note that only 'đã' can highlight the difference between demonstrative objects and numeral objects. As will be shown shortly, the durative 'đang' (and as well the future 'sẽ') show no such contrast. Crosslinguistically, it is as well found that only the perfect/perfective aspect, but not the imperfective, can reveal the distinction between telic and atelic predicates (see Van Hout 2008b).

Last but not least, one thing to keep in mind before proceeding any further is that as already argued in chapter 5, the two constraints can be tied together on the basis of Inner Aspect, i.e., both of them help to expose the projection of Telicity in Vietnamese.

7.2 Research question and why the two constraints are chosen.

The simple purpose of this study is to address the question central to the generative approach to second language acquisition, namely, do second language learners have access to Universal Grammar (UG)?

Assuming that access to UG implies access to all the functional projections assigned by UG, we will show that investigating the acquisition of Vietnamese Inner Aspect-related constraints by Chinese learners can provide two pieces of indirect evidence for UG access.[4]

The first piece of evidence comes from the acquisition of functional structure which is not represented in the L1. Since Chinese differs from Vietnamese in not allowing unaccusative verbs to permute within the causative constructions, if Chinese learners do demonstrate their sensitivity to the word order alternation associated with Vietnamese causatives without explicit instruction and where L1 'transfer' is not a possible explanation, then it is possible to conclude that they are guided by UG. To this extent, our study will shed some light on the problem of the poverty of the stimulus or the logical problem of second language acquisition (Horstein & Lightfoot 1981, White 2003), i.e., to see whether UG is really the best explanation for the mismatch between the input that L2ers are exposed to and the complex unconscious knowledge that they acquire.

The second piece of evidence stems from the clustering effect in the acquisition of those seemingly superficially unrelated but underlyingly connected constructions. Since the two constructions under consideration are syntactically tied together by Inner Aspect, a functional projection specified by UG, it is expected that knowledge of the two constructions also cluster together in the acquisition process. If Chinese learners who acquire the knowledge of the first construction have little difficulty in acquiring the knowledge of the second construction and vice versa; and even though L1 transfer does count, if eventually they overcome it; then it would suggest that UG plays a role in their successful across-the-board acquisition.

We have shown that these two chosen properties are ideal candidates to answer the research question. In this respect, their acquisition can contribute towards addressing the debate between the two main approaches in SLA: Partial Access to UG (Tsimpli & Roussou 1991, Hawkins & Chan 1997) vs. Full Access to UG hypothesis (White 1991a, 1991b, 1992; Schwartz and Sprouse1994, 1996). Although both of them agree that initially, second language learners (L2ers) fully transfer the L1 grammar, they diverge crucially in what leads L2ers to the ultimate attainment of those properties which diverge between L1 and L2. Followers of Partial Access to UG Hypothesis assume that although L2's mental grammar is still constrained by UG, certain features of functional categories (rather than the categories themselves) are inaccessible, so L2ers must recruit general

---

[4] See White (2003), Gilkerson (2006) for other ways to test UG access.

problem solving skills or strategies to learn the difference between L1 and L2. Full Access, on the other hand, takes that even though there is divergence between advanced non-native and native speakers of the target language, L2ers still are able to fully access to principles and parameters of UG, so UG can potentially guide L2ers to successfully building native-like grammars. Crucially, the two hypotheses make different predictions. When L2ers encounter functional features from the L2 which do not match their L1, Partial Access Hypothesis predicts that L2ers can superficially use the L2 form but with the underlying functional features of their L1. Full Access, on the other hand, predicts that interlanguage grammars are not ultimately limited by L1 functional features, L2ers can indeed attain the native-like knowledge. We will see below how the result of the study can shed light on this debate and provide evidence in support of one hypothesis over the other.

7.3 Previous studies on language acquisition of Aspect

The current study is motivated mainly by two previous studies of clustering model in language acquisition: by Snyder & Stromswold (1997) from first language acquisition point of view, and by Slabakova (1999) from second language acquisition perspective, therefore their work will be reviewed in details:

7.3.1 Snyder & Stromswold (1997)

The prediction of the clustering effect is borne out in L1A. Snyder & Stromswold (1997) present evidence that a cluster of complex-predicate constructions in English are all acquired together (i.e., roughly at the same time) by children. These constructions include:

(8)   Resultative: He wiped the table clean.

       Verb particle: He ate up the apple.

       Double object: He gave Mary a book.

       To- dative: He gave a book to Mary.

       Put-locative: He put the book on the table.

       Causative: He made Mary wash the dishes.

The reasons to cluster these constructions come from two sides: from comparative syntax and from first language acquisition.

Firstly, Synder (1995 a, 1995b) argues that these constructions are syntactically related, i.e., they have been analysed as either 'complex predicates' (Larson 1988, Hale & Keyser 1993, Pesetsky 1995) or small clause constructions (Kayne 1984, Hoekstra 1988, Den Dikken 1995). On his account, Snyder (1995a) unifies these constructions on the basics of their dependence on a phonetically null telic morpheme, which is merged as the complement XP of the VP. An activity can be converted into an accomplishment by the

addition of this null telic morpheme and a predicative complement to this morpheme (either a resultative, a particle, a Theme object, a Goal or Locative argument, or a secondary predicate in causative constructions).

(9)

a. John painted the house red.

```
        VP
      /    \
   John     V'
          /    \
         V      VP
              /    \
            DP      V'
         the house /   \
                  V     XP
               painted /   \
                      X     AP
                    Øtelic  red
```

b. John gave Mary a medal

```
        VP
      /    \
   John     V
          /    \
         V      VP
              /    \
            Mary    V
                  /    \
                 V      XP
                 |     /   \
               gave  X      PP
                     |    /    \
                  Øtelic  P      DP
                          |     /   \
                        Øwith  a    medal
```
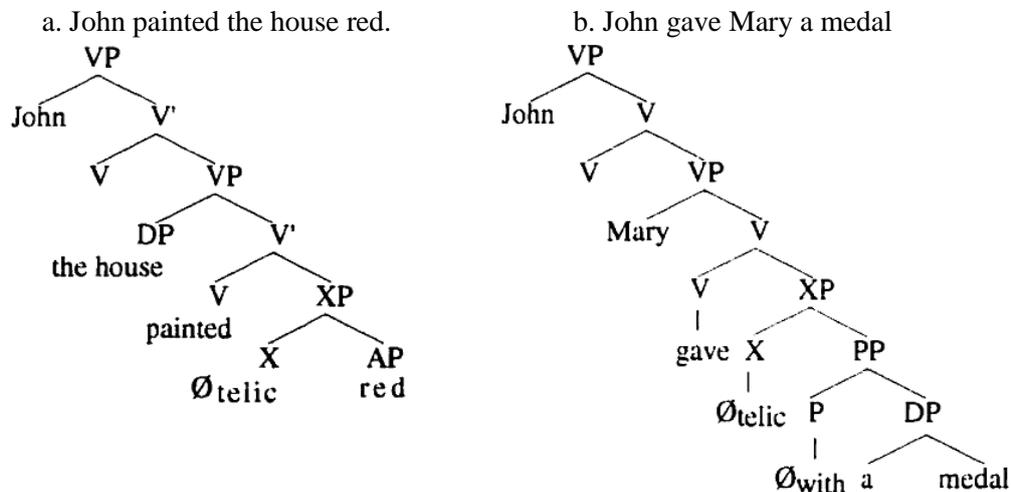
John gave Mary a medal is made parallel to *John presented Mary with a medal*, where the predicate *with* is null.

Furthermore, from a comparative syntax perspective, Synder observes that the availability of these constructions patterns closely with the availability of productive nominal compounding. Only languages with the productive N-N compounding allow the complex predicate constructions that we find within English. Conversely, those languages that lack productive nominal compounding, such as Romance languages, inherently lack the presence of such constructions. Based on that, he proposes a compounding parameter that triggers compounding in a particular language:

(10)   Compounding Parameter (Snyder 2001:328):
       The grammar {disallows*, allows} formation of endocentric compounds during the syntactic derivation [*unmarked value].

These constructions are not present within languages with the unmarked value of the compounding parameter, whereas alternatively, a language with the marked value includes all of them.[5]

This syntactic relationship is supported acquisitionally, i.e., children of L1 English are shown to have the knowledge of complex predicates and productive compounding at roughly the same period of time, based on analysing transcripts from L2 children from the CHILDES database (MacWhinney & Snow 1985, 1990). Taken the age of first use of a construction as a measure of acquisition,[6] their data indicate a *correlation* between ages of

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[5] See Son & Svenonious (2008) for alternative micro-parameter approach, which assumes that the cross-linguistic difference only lies in the size of the lexical items.

[6] In Snyder (2001), a number of new control measures are added: the age at which the child's mean length of utterance first reached or exceeded 2.5 words; the age of first clear use of a lexical N-N compound; and the age of first clear use of an Adjective-Noun combination.

acquisition for the constructions. Specifically, ages of first clear use of a novel N-N compound were 'exceptionally well correlated' with the ages of acquisition for verb-particle constructions. These also are 'robustly correlated' with the ages of acquisition of put-locatives, causative and perceptual constructions, double object, and to-datives. Another thing to note is that to-datives were obtained a bit later than the other complex predicates for the reasons discussed in Snyder & Stromswold (1997).

7.3.2 Slabakova 1999

Motivated by Synder's works on child language acquisition, Slabakova (1999) also investigates a group of aspect-related constructions (verb-particle, resultative secondary predicate, double objects) in order to answer two primary questions: whether the three constructions cluster together, and whether they are connected to the parameter of aspect in the interlanguage grammar.

The assumption behind her study is that aspectual variation among languages can be considered as a parameter: Specifically, in English, the telic morpheme is null and is projected in AspP head, while telic morpheme in Slavic must be overt, and is projected in upper VP head, as in (11) and (12):

(11) Proposed phrase marker for English   (12) Proposed phrase marker for Slavie
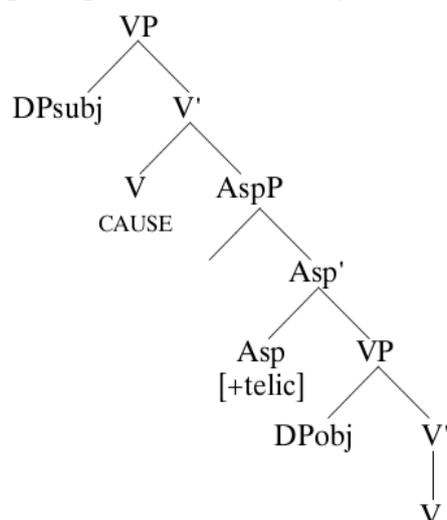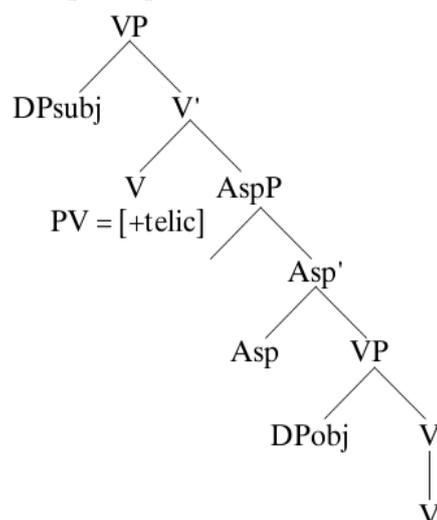
(Slabakova 1999:289)

Within a language, broad consequences can arise as a result of the chosen parameter of aspect. The Slavic telic morpheme c-commands the object in [Spec, AspP] from its position within the upper V head. The English telic morpheme, alternatively, is c-commanded by the object in [Spec, AspP]. Accordingly, the cardinality of the object in Slavic does not have the telicity effect, whilst it does in English. A further result of the parameter of aspect is that complex-predicate constructions are grammatical in English, but not Slavic.

This parameter approach makes an acquisitional prediction that once learners acquire the chosen value of the aspect parameter of the target language, they can also acquire the related constructions. The knowledge of aspect is tested by the aspectual interpretation

task, which is based on the judgement of how natural the combination between a context-establishing clause and a telic/atelic VP-containing clause is; and is collaborated by an additional translation task. The knowledge of the cluster is tapped by accuracy on grammaticality-judgment task, in which subjects are asked to judge how grammatical the complex-predicate constructions are.

Her results show that learners who show knowledge of aspect parameter in English also have acquired the three constructions. Unfortunately, these results do not favour a clustering model of acquisition. In particular, double objects seem to precede resultatives and verb-particles in accuracy, and therefore in time (by implication).

To conclude, studies on the acquisition of aspect have paid attention to the acquisition of a cluster of constructions which are seemingly superficially unrelated but are argued to tie together on the basis of Aspect. The number of constructions in a cluster varies among the researchers. Snyder & Stromswold (1997) consider all of the above constructions to belong to the same cluster, Slabakova (1997, 1999) along the line with Larsonian (1988) only include resultative, verb particle, and double object, while Baker (1997) does not view the double object constructions to have the same status with the other constructions.

Some theoretical and methodological questions arise at this point. The diversity of results of these studies pose questions of which constructions are truly syntactically related from theoretical point of view (that is to say, even though all of the constructions under consideration are Aspect-related, some of them might be more directly/closely related to Aspect than the others) and of what methodologies are appropriate to measure their acquisition. Slabakova's failure to support the clustering model of acquisition, as she recognizsed herself, might be due to the insufficient traditional design.

Keeping in mind these concerns, we can see that in order to examine the clustering effect in L2A, (at least) two tasks must be done:

(i)   Provide a detailed theoretical account of the constructions in question to point out whether or not they are truly syntactically related.

(ii)   Design non-traditional experiments to see whether the syntactic relationship between of the constructions can be addressed acquisitionally.

As thoroughly presented in chapter 5, we adopt the micro-paramteter approach to Inner Aspect, which assume that both Vietnamese and Chinese structurally project Inner Aspect in their functional sequence, the two languages only differ in the syntactic size of the Inner Aspect markers. Therefore, in principle Chinese L2 learners of Vietnamese can have the native-like knowledge of Vietnamese Inner Aspect. We also have argued that the two properties under consideration are both Inner Aspect – related, although the cardinality feature of the object is more directly associated with Inner Aspect than the unaccusative/unergative causative feature. Furthermore, while the cardinality feature is shared by Chinese and Vietnamese, the causative is not. Therefore, it is predicted that Chinese learners of Vietnamese might have more difficulty with the unaccusative/unergative causative feature than the object's cardinality feature, but if UG guides their mental grammar, they will finally overcome it. In order to determine the abstract properties of Interlanguage grammars, we are not confined ourselves to traditional methods, instead both online and offline methods are used. Therefore, in comparison to previous studies, the contribution of our study is both theoretical and methodological.

7.4 Experiments[7]

7.4.1 Participants

Our experiments initially involved 40 native-speakers of Vietnamese, together with 83 Chinese-speaking L2 learners. Participants ranging in age from 18 to 22 were recruited in Hanoi, at Vietnam National University where they were studying undergraduate courses. All of the L2 learners were first exposed to Vietnamese in a formal classroom setting at university, and had spent 9 months (at the time of testing) in Vietnam as exchange students. For these students, Vietnamese was a third or fourth language in addition to Mandarin, their general dialect (Cantonese for instance), their mother tongue and English. The control group consisted of 'non-linguists' that is, native-speakers with no linguistic training, none of whom had spent more than 3 months abroad. Subjects were not paid for their participation, only some refreshments were provided.

The L2ers were divided into intermediate and advance groups based on their results of the proficiency test,[8] which was designed by me as there was no standardized test for Vietnamese as a second language at the time of experiment. The proficiency test consisted of 50 multiple choice sentences, which mainly focus on grammatical characteristics of Vietnamese such as C-domain elements (thì, mà, là, rằng), pre-verbal (đã, đang, sẽ, không/chưa, có, bị, được, nên), post-verbal (xong, hết, cả), right peripheral (rồi, không, chưa, thế, nào) as well as NP-related elements. Advance proficiency was indicated by from 40 to 50 correct answers, intermediate from 27 to 40. Subjects whose scores were below 27 in the proficiency test were excluded.

Subjects were also controlled in terms of their handedness (all left-handers were excluded in the sentence matching task indicated below) and their accuracy rate in doing the assigned tasks (those subject whose error rate was higher than 15% were also omitted from the analysis).

In total, the number of participants reduced to 36 native-speakers of Vietnamese, and 82 Chinese-speaking L2 learners (45 advanced, 37 intermediate).

7.4.2 Methodology: Materials and Design

In our investigation we employed three tasks in total: an offline Truth-Value Judgment task (TVJT), to investigate knowledge of the Aspectual interpretation contributed by the object noun-phrase; a computer-based Sentence-Matching Task (SMT), to test the unaccusative *vs.* unergative contrasts in causative constructions, and a standard off-line acceptability judgment task (AJT) to check the validity of the SMT.

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[7] A version of this section appears as Duffield & Phan (2011).
[8] Conduct appendix A for the full version of the Proficiency test.

7.4.2.1 Task 1 (TVJT – Truth value judgment task)

In the first task, participants received a written questionnaire, where they were instructed to answer Yes-No questions concerning whether they believed certain sentences to be true or false in particular contexts of utterance. There are two types of test questions which involve the completion entailment of predicates of creation/consumption/change of state[9] in perfect form in two different conditions: the first type containing 'đã' plus a non-quantificational object NP, and the second type involve 'đã' and a quantificational object NP:

(13)   a.   If it is reported that 'Nó đã ăn cái bánh đó' (lit: He đã eat that cake), is there any possibility that he has not finished that cake?
> Yes or No. (Condition 1: here, the expected answer is Yes).

     b. If it is reported that 'Nó đã ăn hai cái bánh' (lit: He đã eat two cakes), is there any possibility that he has not finished the second cake?
> Yes or No. (Condition 2: here, the expected answer is No.)

When the DP object is demonstrative [-q], no completion is necessarily entailed, therefore the expected answer of condition 1 in (13a) is YES. When the DP object is numeral (without demonstrative) [+q], completion is entailed, thus the expected answer of condition 2 in (13b) is NO.

The test also included a set of distractor items which involve verbs of creation/consumption/change of state in imperfect form and future form: the anterior morpheme *đã* was replaced by either the progressive morpheme *đang* or the future/irrealis morpheme *sẽ*; in both cases, the expected answer was 'no'.[10]

(14)   a.   If it is reported that 'Nó **đang** ăn hai cái bánh' (lit:He đang eat two cakes), is there any possibility that he has already finished eating both these two cakes?
> Yes or No. (the expected answer is No)

     b.   If it is reported that 'Nó **đang** ăn cái bánh đó' (lit: He đang eat that cake), is there any possibility that he has already finished eating that cake?
> Yes or No. (the expected answer is No)

(15)   a.   If it is reported that 'Nó **sẽ** ăn hai cái bánh' (lit: He sẽ eat two cakes), is there any possibility that he has already finished both these two cakes?
> Yes or No. (the expected answer is No)

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[9]Please note that in my study, predicates of incremental objects are used in the sense of Dowty (1991),which include both objects that are brought into existence (e.g. build a bridge, bake a cake), and objects that undergoe a change of state (e.g., paint a door, sharpen a knife). This is to differentiate with other classifications. In Tenny (1987), for instance, incremental- theme predicates is only confined to verbs of creation/comsuption, and is distinguished from change-of-state predicates, and from path-of-motion predicates (e.g., push the cart to the shed).

[10] It can be observed that participants are expected to only say YES in condition 1, and say NO in all other conditions, therefore totally the expected negative answers outnumber the expected positive answers. To discourage the 'NO' bias, those participants who gave all NO answer were excluded, although that makes them 70% correct, for they did not do the task properly. In addition, the raw scores were converted to percentage, so the skewed distribution does not really affect the result.

b. If it is reported that 'Nó **sẽ** ăn cái bánh đó' (lit: He sẽ eat that cake), is there any chance that he has already finished eating that cake?.
Yes or No. (the expected answer is No)

Each participant was required to answer 64 questions, involving 32 test sentences and 32 distractor items. Two versions of the materials were prepared, each with a different set of 32 lexical predicates. Participants were alternately assigned one or other version of the task.[11]

Predicates of the two versions were semantically related in pairs, so that the token sentences in each version were balanced in terms of lexical-grammatical complexity, frequency and plausibleness. The list of the 32 tested predicates is shown below:

Table 1 - TVJT - List of 32 tested predicates

	Version 1	Version 2
1	Ăn bánh — to eat cake	Hút thuốc — to smoke cigarette
2	Nấu cơm — to cook rice	Đun canh — to heat soup
3	Nướng thịt — to grill meat	Luộc gà — to boil chicken
4	Rán khoai tây — to fry potato	Chiên đậu — to fry tofu
5	Tô bức tranh — to paint picture	Vẽ bản đồ — to draw map
6	Viết tiểu thuyết — to write novel	Soạn bản nhạc — to compose music
7	Thêu khăn quàng — to embroider scarf	Đan mũ — to knit hat
8	Lau bàn — to wipe table	Xóa bảng — to wipe board
9	Xây cầu — to build bridge	Dựng tường — to erect wall
10	Sửa máy giặt — to fix washing machine	Chữa xe đạp — to fix bicycle
11	Dệt áo — to weave shirt	May quần — to sew trousers
12	Tạc tượng — to carve statue	Khắc gỗ — to engrave wood
13	Mài kéo — to sharpen scissor	Rèn dao — to forge knife
14	Nung gốm — to heat pottery	Lắp máng nước — to fit water trough
15	Sơn cửa — to paint door	Đọc sách — to read books
16	Quét nhà — to clean floor	Rửa nồi — to clean cooking pan

In this task, the independent between-item variables were thus Condition and Version. The independent between-subject variable was Proficiency (Native-speaker vs. Advanced Learner vs. Intermediate Learner). The dependent measure in the task was the proportion of acceptances; alternatively, the proportion of correct answers (correct acceptances or rejections); see below. It took around 15-20 minutes for each participant to complete the task.

7.4.2.2 Task 2 (Sentence matching task - SMT)

In the computer-based Sentence-Matching task, participants were asked to judge whether two sentences, presented consecutively on a computer screen, were identical in form ("match") or not ("mismatch"). The paradigm's theoretical importance, as originally demonstrated by Freedman & Forster (1985), and often replicated since, [12] is that sentences

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[11] See Appendix B for the full list of stimuli and distractors of the two versions of the TVJT.

[12] See Duffield & White (1999) and Duffield & White et al (2002). It should be noted that not everyone accepts the validity of the SMT as a measure of competence—or indeed the basic intepretation of the main effect: see Crain & Steedman (1985) for an early challenge; for a rejoinder, see Duffield, Matsuo and Roberts (2009).

that are grammatical are matched to other identical grammatical sentences in a shorter time than ungrammatical sentences are matched to identical ungrammatical sentences (typical mean difference 30ms-60msecs). As a result of this, a faster response latency may indicate the grammaticality of a sentence. With this view, L2 learners will be accepted to have a similar competence with respect to a particular grammatical phenomenon, if their response latencies show a similar pattern to those of native speakers, regardless of whether their response times are generally slower.

The SMT investigated learners' sensitivity to the grammatical acceptability of six different sentence types, in which the acceptability was affected by three main factors: unaccusativity (unaccusative *vs.* unergative predicates); invertedness (canonical SV *vs.* VS order) and the presence of an additional causative verb 'cho' (give). This is illustrated in the following table:

Table 2 - SMT – Tested sentence types

Type	Constructions	Grammatical Acceptability	Examples
A	Non-inverted unaccusative	Less Acceptable than B, though still grammatical	Tôi làm cái áo rách (I make the shirt torn)
B	Inverted unaccusative	Strongly acceptable	Tôi làm rách cái áo (I make torn the shirt)
C	Inverted unergative	*Strongly unacceptable	* Tôi làm nhảy cô gái (I make dance the girl)
D	Non-inverted unergative	?Not ungrammatical but less preferable (than E)	?Tôi làm cô gái nhảy (I make the girl dance)
E	*Làm cho* non-inverted unergative	Clearly acceptable	Tôi làm cho cô gái nhảy (I make give the girl dance)
F	*Làm cho* inverted unaccusative	*Clearly unacceptable	*Tôi làm cho rách cái áo (I make give torn the shirt)

The distractor items included pairs of mismatching sentences, which involved 'làm' and 'cho' in non-causative usages (i.e., when 'làm' means 'to do', 'to work as', 'to make', etc. and 'cho' used as a main predicate which means 'to allow', 'to let'; or as a preposition, etc.). The first sentence differed from the second one by one lexical item which could be equally distributed in the initial, medial or final position of the sentence. All the distractor pairs are grammatical, but they look just like the test sentences in terms of sentence length and lexical items used.[13]

Table 3 - SMT - Filter items

Constructions	Position	First sentence	Second sentence
'làm'- to create	Initial	*Mẹ* đang làm bánh cuốn (Mum making steamed rolls)	*Chị* đang làm bánh cuốn (Sister making steamed rolls)
	Medial	Họ *làm* lều cho dân (They make tents for people)	Họ *xây* lều cho dân (They build tents for people)
	Final	Nó làm nhà cho *bố*	Nó làm nhà cho *mẹ*

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[13]It can be observed that matching test sentences can be either grammatical or ungrammatical, while all non-matching distractor sentences are grammatical, therefore in total, grammatical sentences outnumber ungrammatical sentences. However, this would not compromise the results since n*on-matching* items are only foils, they were only used to guarantee that the subjects comprehended the task correctly: the only comparison of interest is the contrast between grammatical vs. ungrammatical *matching* items.

		(He build house for dad)	(He build house for mum)
'cho' - to allow, to let	Initial	*Tôi* đã cho chị biết chuyện (I let her know our stories)	*Nó* đã cho chị biết chuyện (She let her know our stories)
	Medial	Họ *đã* cho xây lại nhà (They allowed to rebuild the house)	Họ *sẽ* cho xây lại nhà (They will allow to rebuild the house)
	Final	Họ cho tôi nghỉ *phép* (They allow me to take leave)	Họ cho tôi nghỉ *việc* (They allow me to stop job = They fired me)

The SMT consisted of 60 pairs of test sentences (10 pairs per sentence type), which were all matching pairs, either grammatical or ungrammatical; and 60 pairs of mismatching distractor sentences. There were two versions of the SMT, each involving a different set of 60 lexical predicates.[14]

Table 4 – SMT- 10 core unaccusative predicates were in use

Version 1	Version 2
1. Cái áo rách the shirt torn	1. Quyển sách rách the book torn
2. Cái que gãy the stick broke	2. Cái gậy gãy the cane broke
3. Lọ hoa bể the vase broke	3. Cái đĩa bểthe plate broke
4. Cái ghế đổ the chair fell	4. Cái bàn đổ the table fell
5. Cái bát mẻ the bowl chipped	5. Cái cốc mẻ the tumbler chipped
6. Cái ly rạn the glass cracked	6. Cái chén rạn the cup cracked
7. cái dây giãn the rope slackened	7. Cái vòng giãn the hoop slackened
8. cái vòng méo the bangle ill-shaped	8. Cái nhẫn méo the ring ill-shaped
9. cái kim cong the needle crooked	9. Con dao cong the knife crooked
10. nồi cá cháy the pot of fish burnt	10. Xoong thịt cháy the pan of meat burnt

Table 5 - SMT -10 unergative predicates were used

Version 1	Version 2
1. cậu bé chạy the boy run	1. Cô gái chạy the girl run
2. con bé bò the girl crawl	2. Cậu bé bò the boy run
3. em bé đi the baby walk	3. Cậu bé đi the boy walk
4. cô gái nhảy the girl dance	4. Chịấy nhảy her dance
5. anh ấy hát him sing	5. Cô ấy hát her sing
6. chịấy ca her sing	6. Anh ấy ca him sing
7. bác ấy đàn him play music	7. Chị ấy đàn her play music
8. cô ấy múa her dance	8. Anh ấy múa him dance
9. cậu bé vẽ the boy draw	9. Con bé vẽ the girl draw
10. bà ấy hét the lady scream	10. Cô ấy hét the woman scream

Procedure. The experiment was run on PCs using the DmDX display software. A brief instruction paragraph was first displayed in Vietnamese, and then followed by 8 practice trials (half matching, half non-matching pairs). The first sentence of each pair was offset to the top left of the screen and then disappeared. After a delay of 2000 msecs, the second

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[14] The complete set of stimuli and fillers can be found in Appendix C.

sentence was presented to the bottom right of the screen. A timer started at the onset of the second sentence and was stopped when the participant pressed one of the two SHIFT buttons: the right SHIFT if they thought the pair were identically matched, or the left SHIFT if they detected a mismatch. Each trial was timed out if the subject did not respond within 3500msecs after the presentation of the second sentence. The next trial appeared after an interval (ISI) of 700 msecs. The SMT included three breaks, which occurred after every 30 trials: participants could decide when to resume by pressing the spacebar. All the items were randomized for each participant. It took around 20-30 minutes for each participant to complete the task.[15]

In the SMT the independent between-item variables were Sentence Type (A-F), Grammatical Acceptability (good, marginal, unacceptable), Unaccusativity (unaccusative vs. unaccusative) and Version (2 levels); the within-item variable was Proficiency (native-speaker vs. advanced vs. intermediate learner). The dependent measure was the response latency in each trial.

7.4.2.3 Task 3 (AJT – Acceptability judgment task):

The SMT was immediately followed up by an Acceptability Judgment Task, which also tested the same 6 sentence types and involved the same list of 60 tested sentences. There were also 60 distractor sentences, which were the first sentences of the mismatching pairs in the SMT.[16] As with the SMT, the AJT consisted of two versions: those participants that took version A in the SMT received version B in the AJT, and *vice versa*.

Participants were asked to judge the acceptability of each sentence, according to a seven point Likert scale:

(16)
  -3: Completely unacceptable (I think the Vietnamese native speakers never say that)
  -2: More likely unacceptable (I think the Vietnamese native speakers do not usually say that)
  -1: Slightly unacceptable (I think the Vietnamese native speakers might not say that)
   0: I am not sure (I am not sure if the Vietnamese native speakers say that)
  +1: Slightly acceptable (I think the Vietnamese native speakers might say that)
  +2: More likely acceptable (I think the Vietnamese native speakers usually say that)
  +3: completely acceptable (I think the Vietnamese native speakers always say that)

For any sentence assigned a negative score, participants were required to provide written corrections. Hence, there were two dependent measures in this task: the acceptability score for each item—a quantitative measure—and the type of correction offered for negatively scored items—a qualitative measure. Once again, participants took about 20-30 minutes to judge the acceptability and make corrections to all of the sentences.

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[15] All the numbers here is given based on standard assumptions of SMT method and on my experiment trials.
[16] See Appendix D for the list of stimuli and distractors of the AJT.

7.4.3 Results

7.4.3.1 Task 1 (TVJT)

Prediction:

Recall that in chapter 5, we arrived at the following generalization that:

(17) a. If the DP object contains a demonstrative modifier, the eventuality is ambiguous (it can be either telic or atelic).
b. If the DP object contains a numeral quantifier, the eventuality must be telic/completed.

Therefore a condition effect is expected, namely, the participants respond to the two conditions differently. It is also predicted that subjects will be much less consistent judging condition 1 than condition 2, for the expected answer for condition 1 in principle can be either YES or NO (YES is preferable, but NO is understandable), while it is more likely to be a NO for condition 2.

Results:

These predictions are borne out.

Overall, both proficiency groups performed reasonably well in this task, their results generally conforming to those of the control group: the mean correctness across the L2 groups $\mu=$ 71.07%, SD $\sigma=$ 12.62%). As predicted, an Analysis of Variance revealed a significant main effect of Condition ($p< 0.05$) and Proficiency ($p=0.03 <0.05$); again as expected, there was no main effect of Version ($p = 0.108 > 0.05$). There were no reliable interactions between the variables ($p= 0.902 > 0.05$): all proficiency groups responded to each condition in much the same way.

Consider the Condition effect. As shown in Figure 1, there was a clear contrast between Condition 1 and Condition 2, as predicted:

Figure 1 - TVJT: Mean scores by condition
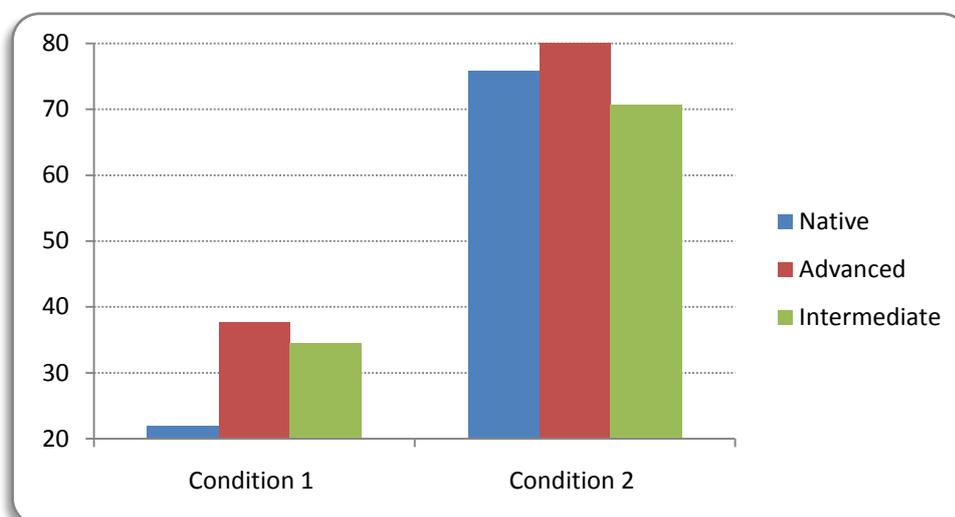
The above Figure indicates that both groups of L2ers (although the advanced learners are slightly better than the intermediate ones) show a similar pattern to the control group, which means they are aware of the difference between the completion entailment of the two constructions (demonstrative objects vs. numeral objects), and therefore they are all sensitive to the DP's aspectual effect in perfect sentences.

The contrast between condition 1 and condition 2 is brought out even more clearly by the interaction between mean score and standard deviation:

Table 6 - TVJT – Mean and Standard Deviation

		Native	Advanced	Intermediate
Condition 1	Mean	21.88%	37.64%	34.38%
	STDV	19.79	37.18	34.47
Condition 2	Mean	75.69%	80%	70.56%
	STDV	21.69	24.77	30.65

In condition 1, the standard deviation is so high that it is approaching the mean score (for the advanced group) and even higher than the mean score (for the intermediate group). The gap between standard deviation and mean score in condition 2 is much smaller, though it is still big, it is about 1/3 for the advanced group and about ½ for the intermediate group (compared to 1/3 for the native group). That is to say, the subject's performance on the sentences of condition 1 is considerably less consistent than on those of condition 2. Again, this result is also predicted and is compatible with the theoretical analysis presented in chapter 5. Note that even native speakers generally reject non-completion in Condition 1, so what is crucial is the convergence in patterning.

Overall, what remains important is that both groups of the L2 learners show a very similar pattern to that of the native-speaker control group, correctly judging the numeral object constructions as telic, and correctly accepting the possibility that the demonstrative object construction can be atelic.[17]

7.4.3.2 Task 2 (SMT)

Prediction

In this task, the general one-tailed prediction was that matching of grammatical sentences should elicit shorter response latencies than the matching of ungrammatical pairs.

Results:

Across the data this general prediction was borne out: an ANOVA revealed a main effect of grammaticality ($p<0.05$), together with an effect of proficiency ($p<0.05$)—native-

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[17]Two more things should be noted about the results of this test. First, in this truth value jdugement task, native speakers did not perform at ceiling; second, L2ers' performance actually appears to be better than that of native speakers. The former might be because our test focused on subtle semantic interpretation rather than clear-cut (un)grammaticality. The latter might be due to the fact that L2ers have more experience with metalinguistic tests with formal instructions than do native speakers (as will be shown later, L2ers are not better than native speakers with implicit knowledge-oriented tests after all). However, the overall accuracy percentage and the consistent condition effect across the data indicate that our test design is (though not easy) still reliable.

speakers' responses were faster than those of the learners groups—and unaccusativity ($p = 0.001 < 0.05$). Surprisingly also, a significant interaction was also observed between grammaticality and unaccusativity ($p < 0.05$): whereas in the case of unaccusative constructions response latencies correlate with grammaticality in the predicted fashion (more ungrammatical = longer RTs), this was not the case for constructions involving unergatives, where the ungrammatical constructions were responded to no less quickly than the grammatical ones. This contrast is diagrammed in Figures 2 and 3 below:

Figure 2 - SMT: Grammaticality * Proficiency: Unaccusative constructions
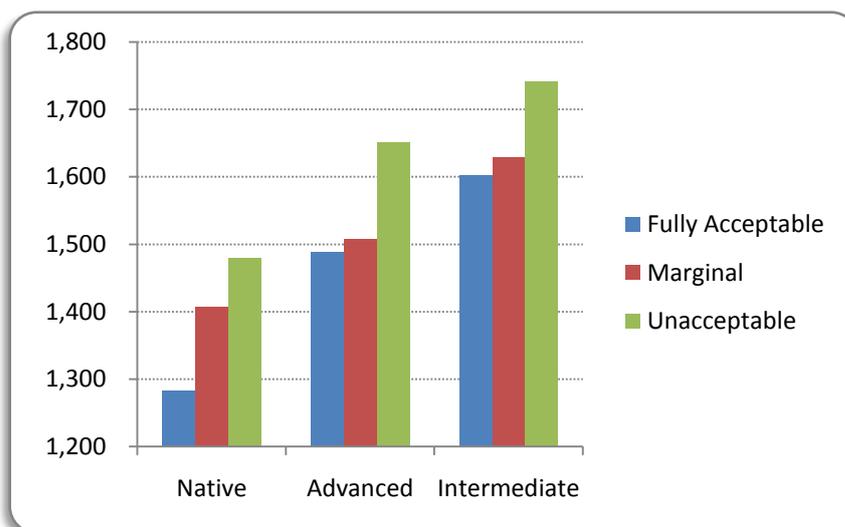
Figure 3 - SMT Grammaticality * Proficiency: Unergative constructions
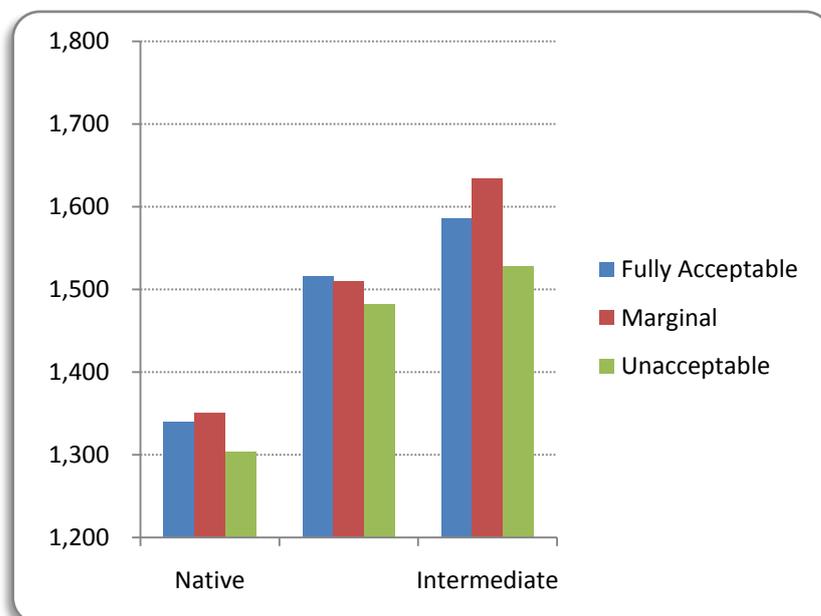
Rather than looking at main effects however, the results yield more interesting data if related sentence types are paired together in terms of grammaticality effect:

Table 7 – SMT- List of contrasting pairs

Condition	Less grammatical	More grammatical
1	Type A: ?Tôi làm cái áo rách	Type B: Tôi làm rách cái áo
2	Type C: *Tôi làm nhảy cô gái	Type B: Tôi làm rách cái áo
3	Type C: *Tôi làm nhảy cô gái	Type D: ?Tôi làm cô gái nhảy
4	Type D: ?Tôi làm cô gái nhảy	Type A: ?Tôi làm cái áo rách
5	Type D: ?Tôi làm cô gái nhảy	Type E: Tôi làm cho cô gái nhảy
6	Type D: ?Tôi làm cô gái nhảy	Type B: Tôi làm rách cái áo
7	Type F: *Tôi làm cho rách cái áo	Type B: Tôi làm rách cái áo
8	Type F: *Tôi làm cho rách cái áo	Type E: Tôi làm cho cô gái nhảy

Adopting the metric from Duffield & White (1999) whereby a grammaticality effect is calculated for each pair of related conditions by subtracting the ungrammatical mean from the grammatical mean and multiplying by -1000 (Duffield & White 1999:146), yields the following table:

Figure 4 - SMT: Pairwise comparisons
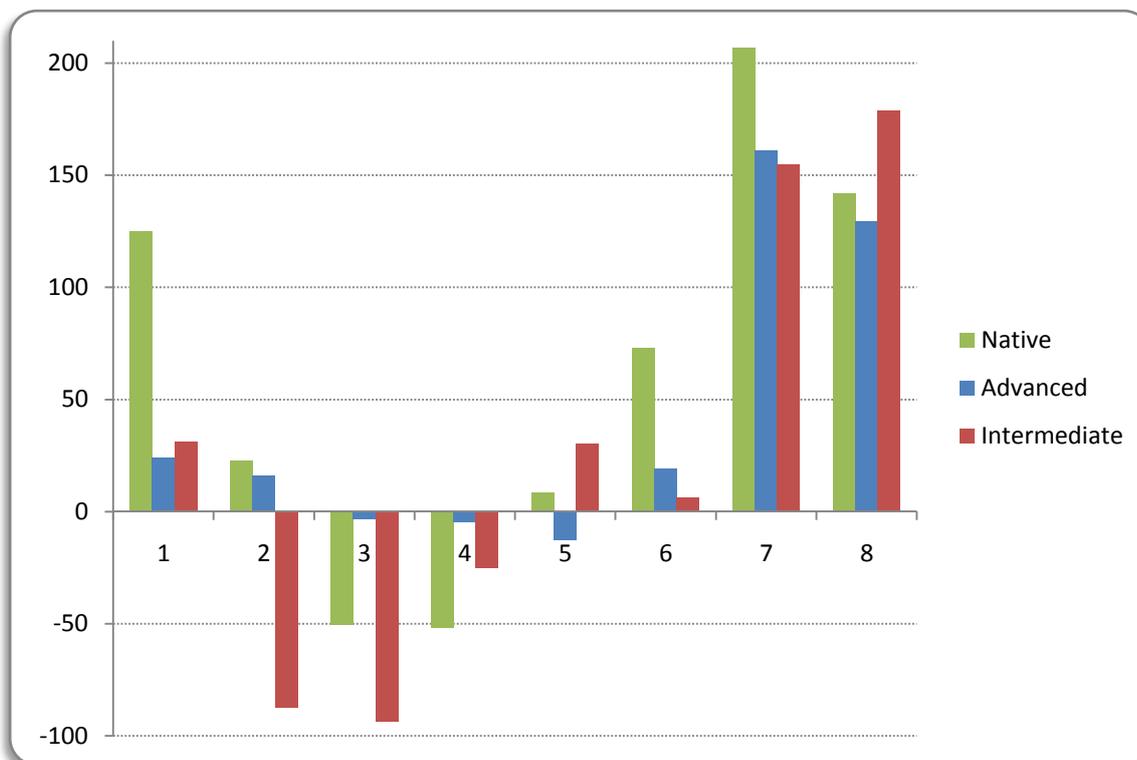
The Figure 4 once again reveals a very similar pattern observed among the three groups. All of the participants are able to reliably distinguish between ungrammatical and grammatical sentences in most cases (with the statistically significant difference in Condition 7 and 8 in all three groups), even though the native speakers' performance shows more expected contrasts. Specifically, the native-speakers distinguish between unaccusative causative and unergative causative constructions (in that they correctly respond to the inverted unergative more slowly than to the inverted unaccusative in condition 2). With respect to unaccusative causative constructions, the significant difference between their RTs of non-inverted unaccusative and their RTs of inverted unaccusative constructions in Condition 1 clearly shows that native speakers prefer the inverted order in unaccusative causatives. What is more, they asymmetrically prefer those

with the addition of 'cho' in the uninverted unergative constructions (as shown in Condition 5 by the fact that RTs to the 'lam cho uninverted unergative causatives' are faster than those to those without 'cho'), but not in the inverted unaccusative constructions (where RTs to the 'lam cho inverted unaccusative causatives' are the longest as shown in conditions 7, 8).

However, what remains problematic on the SMT is that the control group did not perform as expected in Conditions 3 and 4. Aside from these two conditions, the advanced speakers also appear to have difficulty in realising that unergative causatives can be rescued by the addition of another verb 'cho' in Condition 5, while the intermediate learners even fail to distinguish between inverted unergative vs. inverted unaccusative in condition 2 (there is a significant, and unexpected reversal of RTs in Condition 2). All of these issues require further discussion.

7.4.3.3 Task 3 (AJT)

<u>Prediction:</u>

Participants are expected to give higher scores to grammatical sentences than to ungrammatical sentences.

<u>Results:</u>

Statistical tests reveal, as expected, a significant main effect of sentence type ($p < 0.05$) and no effect of Version. Though there was no main effect of Proficiency, a marginal interaction was observed between sentence type and proficiency ($p = 0.05$).

The results by sentence type are presented in Figure 5. In this Figure, sentence-types are organised from left to right in terms of decreasing grammatical acceptability: thus, overall what was predicted was a pattern of step-wise decreasing scores {1/2 > 3/4 > 5/6}. Native speakers are shown to correctly accept grammatical sentences (with the highest scores in sentences type B and E) and reject ungrammatical sentences (with the lowest scores in sentences type F and C). Advanced learners show very much the same pattern of judgment; however, the scores of the intermediate group are somewhat more variable.

Figure 5 - AJT: Scores by sentence type
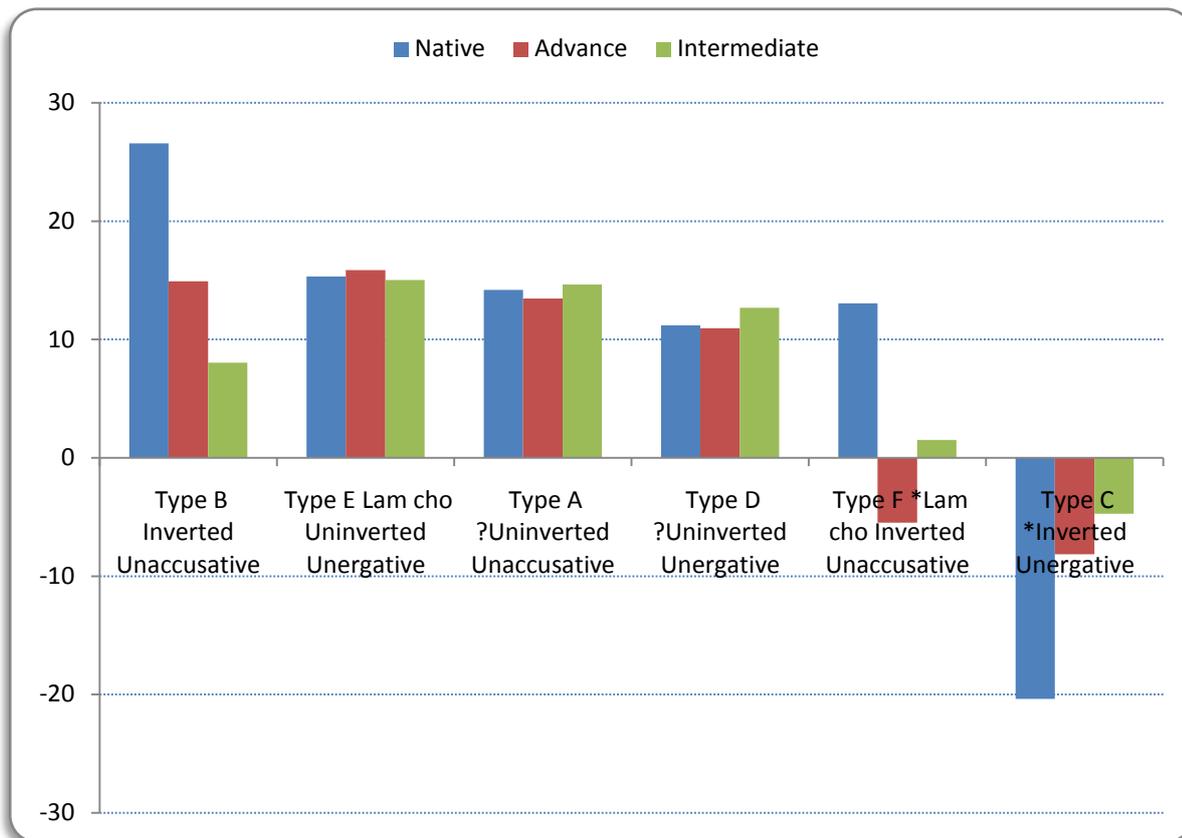
7.4.3.4 Correction data

For 60 tested sentences, native speakers made 479 corrections, advanced learners 625 and intermediate 480, in which most of the corrections were made to ungrammatical (as opposed to grammatical or marginal) sentences: 69.73% for the control group, 65.44% for the advanced, and 59.58% for the intermediate group, respectively. Overall, the percentage of appropriate corrections (i.e. by changing the word order of the sentences or adding 'cho' to the unergative causative constructions) was 76%, 91.52%, 97.29% for the control, the advanced and the intermediate groups, respectively.

Table 8 - Correction data

Proficiency group	No. of corrections	Corrections to ungrammatical	Appropriate Corrections
Native speakers	479	69.73%	76%
Advanced	625	65.44%	91.52%
Intermediate	480	59.58%	97.29%

It is interesting to note that most of the inappropriate corrections that the native speakers made involved a lexical change: either replacing the main causative verb 'làm' by other agent-oriented meaning verbs such as 'khiến' (to command: 9 cases), 'bảo' (to ask: 16 cases), or by adding theme-oriented meaning verbs including 'bị' to the unaccusative constructions (32 cases) and 'phải' to the unergative constructions (20 cases).

7.4.4 Discussion

First of all, it is important to point out is that the correction data (together with the results of the AJT) do complement the SMT, in other words, the corrections serve as possible explanations for those conditions in the SMT where an unexpected difference was observed. As for the native groups, condition 3 (the contrast between type C vs. type D, or inverted unergative and uninverted unergative) and condition 4 (type D vs. type A, or inverted unergative vs. uninverted unaccusative) were problematic on the SMT. However, when one considers their responses on the AJT, it is not the case that they misjudge the grammaticality of the sentences, i.e., they do judge type D and A as marginal compared with the ungrammatical type C (their scores for sentences type C *inverted unergative are indeed lower than those for sentences type D uninverted unergative and type A uninverted unaccusative, see Figure 5 above). The question is why sentences type D and type A elicit such long response times in the SMT. The answer lies in the correction data, namely, native-speakers consider type D sentences as lexically problematic (64.91% of their corrections provide a lexical change of the main verb) and type A as having problematic word-order (68.63% of their corrections involve changing the word-order of inverted unaccusatives).

With respect to the Advanced group, the AJT partially explains the unexpected result in the SMT Conditions 3 and 4, and also in Condition 5 (type D vs. type E or lam unergative *vs.* lam cho unergative). Even though their scores on the AJT reveal that they are aware of the fact that 'lam cho unergative' is more acceptable than 'lam unergative' (as their scores to type E are slightly higher than those to type D, see the figure 5), some of the advanced learners still mistakenly correct the 'lam cho unergative' constructions by omitting the word 'cho' (which makes up 51.28% of thetype E's corrections). This false intuition may explain the long response latencies of 'lam cho unergative' in the SMT.

Finally, concerning the intermediate group, this group was shown to have difficulty not only with Conditions 3 & 4, but also with Condition 2 (type C vs. type B or inverted unergative vs. inverted unaccusative). Figure 5 indicates that the intermediate group is in fact aware that inverted unergative causatives are much more unacceptable than inverted unaccusative causatives (provided that they judge the inverted unergative as lowest in the acceptability scale). However, the correction data reveals that participants in this group incorrectly think inverted unaccusatives are quite unacceptable (67.57% of their corrections involved mistakenly changing the word-order into uninverted unaccusatives). This non-native judgment offers a likely explanation for their elevated RT to (grammatical) Type 2 sentence-pairs in the SMT.

Because our study did not investigate another group of L2ers with non-Chinese L1 background, it is insufficient to conclude that their knowledge of Aspect is fully transferred from L1. However, we cannot deny the existence of L1 effect even at advanced level (see Montrul 2004, Montrul & Slabakova 2003 for a similar conclusion).

7.5 Conclusion

Overall, these results provide statistically reliable support for the idea that L2 learners—even the intermediate group—correctly interpret potentially ambiguous sentences with respect to entailment of completion (those in 1 and 2), and correctly discriminate grammatical from ungrammatical word-orders in Vietnamese, even in cases where their L1 diverges from that of the target. Although some of the results from the intermediate group show interesting interference effects from their L1, their overall performance—and more importantly, the performance of the advanced group, which closely converged on that of the native-speaker controls—suggests that L2 interlanguage grammars are not ultimately limited by L1 patterns. Moreover, given the absence of explicit teaching, the results of these experiments are consistent with the idea that learners' performance is guided by UG constraints. Unlike what is assumed in the Partial Access to UG Hypothesis, Chinese L2ers do have knowledge of Vietnamese functional categories and their feature specification. Our study therefore is in favour of the Full Access hypothesis.

Chapter 8: Conclusion

In this dissertation, I have investigated the structure and acquisition of verbal Aspect in Vietnamese, with particular focus on the question of how Aspect is syntactically represented.

The main theoretical premise adopted here is that the two well-established types of aspect, namely Situation Aspect and Viewpoint Aspect, are both syntactically projected: the former is represented inside the inflectional zone of the clause (i.e., VP-externally), the latter within the lexical zone of the clause (VP-internally); these are therefore justifiably referred to as Outer Aspect and Inner Aspect, respectively (Travis 2010; see also Borer 2005, MacDonald 2006, Ramchand 2008, Nossalik 2009, etc.). The two aspectual domains are clearly distinguished distributionally and functionally in Vietnamese. **Pre-verbal** Outer Aspect markers, including especially the anterior morpheme *đã* and the durative *đang,* serve to locate the situation in the timeline. **Postverbal** elements, on the other hand, such as the result-denoting particles '*được*' ('obtain'), '*phải*' ('must')*,* and the completive particles '*hết*' ('end')*, xong*(' finish')*, ra* ('out') and *thấy* ('see'), function as telicity markers. While the semantic and syntactic properties of these elements have been previously discussed in the grammatical literature, their precise characterisation still remains a controversial issue requiring further investigation. The present work attempts to synthesize all of the data that have been brought up in previous work with new and independent supporting evidence in the service of a unified account of Vietnamese Aspect. In addition, the analysis also employs a theoretical cartographic framework that enables us to elucidate the intricate behaviour of these aspectual markers in Vietnamese, in ways not available in other frameworks or from a purely descriptive perspective.

The main theoretical contribution of the dissertation is two-fold:

First, with regard to the IP-related elements, I have offered a unified semantico-syntactic account of pre-verbal temporal/aspectual elements. I argue, contrary to what has often been supposed, that the three preverbal elements 'đã' (anterior), 'đang' (durative) and 'sẽ' (future) do not form a simple tense paradigm. Detailed investigation of the semantic and syntactic properties of these elements reveals that they actually occupy distinct structural positions, arranged within a fixed functional hierarchy. Two of the three markers, the durative 'đang' and the future morpheme 'sẽ' are amenable to relatively straightforward analyses: đang' is shown to be projected lowest, as a pure instantiation of the Outer Aspect head, while sẽ' is hierarchically the highest element (the only morpheme that is base-

generated directly under the Tense head). The intermediate element 'đã' is the most complicated and controversial of the three, and it is the analysis of this element that truly differentiates the present account from existing studies. In the literature, 'đã' has been variously dubbed a past tense marker, a perfective marker, and a perfect marker: it clearly has mixed properties; the open question has been what its core meaning really is. Also, although the characteristics of 'đã' have previously been discussed from both semantic and syntactic perspectives, I have argued that neither a purely usage-based semantic approach nor a strictly syntactic formal approach is capable of adequately explaining its intricate behavior. My novel contribution lies in the original claim that 'đã' is semantically a mixture of both aspect and tense components, in the sense of Klein (1994): 'đã' is aspectual in as much as it directs our attention to the initial stage of the situation time; however, it is also temporally relational, in so far as its meaning also goes beyond the internal structure of the situation; in addition, 'đã' anchors the initial stage of the situation time prior to the default utterance time. Hence, the type of aspectual meaning signalled by Vietnamese preverbal morphemes is related to, but qualitatively distinct from the kinds of aspectual semantics observed in European languages, which typically focuses on the binary perfective/imperfective distinction and on the terminal boundaries of events or situations. In addition to this semantic investigation, I have established a close parallel between the meaning and the structural position of 'đã'. I have shown that different interpretations of 'đã' result from different syntactic environments in which it appears, i.e., different positions in the underlying structure. Specifically, in affirmative sentences, 'đã' is assumed to be initially merged under Outer Aspect, then overtly raised to Tense to check its both aspectual and temporal feature (hence 'đã' is interpreted ambiguously as either the perfect or the preterite). However, in negative contexts, following Duffield (2011, 2013), I assume that due to the intervention of negation, 'đã' is inserted directly under Tense (hence 'đã' is interpreted unambiguously as the preterite). It is also worth mentioning that while perfective and imperfective are in complementary distribution in classical aspect languages, preverbal TMA markers in Vietnamese can actually co-occur. Hence, my study is not only confined to a theoretically-informed description of 'đã', but also examines its interaction with other IP-related elements, thereby offering an more refined cartographic structure than was previously available; cf. Duffield (1999), Trinh (2005).

Second, with regard to VP structure, I have brought together two different complex predicate constructions (the 'làm' causative and the verb-telic particle constructions, which have been previously investigated on their own (e.g. Duffield 2011, Fukuda 2007) but have so far not been given a unified analysis. I provide an independent analysis in which it is argued that the two constructions, despite their own complexity, both involve an underlying Inner Aspect head, a functional head intervening between the two VP layers. The projection of Inner Aspect enables us to shed light on the thematic hierarchy of the 'làm' causatives and the word order alternations of the verb-telic particle constructions. Vietnamese data also provides additional justification for the 'Extended VP Shells Hypothesis', a structural proposal advanced by Nicol (2002), along the lines of Dehé (2000), Ramchand (2008), Travis (2010).

Combining these two analytic projects yields the following functional phrase-structure for Vietnamese (leaving aside other irrelevant details):[1]

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[1] I do not deal with functional heads which are above TP in this thesis. To see how the topic-prominent characteristic of Vietnamese is represented structurally and how CP can also be internally divided, the reader is referred to Duffield (2011).

(1)

```
                TP
               /  \
                   T'
                  /  \
               T⁰    NegP
               sẽ    /  \
                    Neg'
                   /   \
                Neg⁰   PerfectP
                không   /  \
                       Perfect'
                      /    \
                  Perfect⁰  ProgP
                   đã      /  \
                         Prog'
                        /    \
                    Prog⁰    EP
                    đang    /  \
                           E'
                          /  \
                        E⁰   V₁P
                        có   /  \
                           V₁'
                          /  \
                       V₁⁰  CompletiveP
                            /  \
                         Completive'
                        /      \
                  Completive⁰  ResultativeP
                    xong       /  \
                          Resultative'
                         /        \
                   Resultative⁰   V₂P
                     được        /  \
                               V₂'
                              /  \
                          V₂⁰    XP
```

That is to say, there is both interpretive and syntactic evidence for a split IP and an extended VP in Vietnamese.

Recall that my thesis also aims to use Vietnamese data to test the validity of Cinque's (1999) cartographic proposal concerning the extended structure of IP.

(2)

$$[\text{Mood}_{\text{speech act}} \; [\text{Mood}_{\text{evaluative}} \; [\text{Mood}_{\text{evidential}} \; [\text{Mod}_{\text{epistemic}} \; [\text{T(Past)} \; [\text{T(Future)}$$
$$[\text{Mood}_{\text{irrealis}} \; [\text{Mod}_{\text{necessity}} \; [\text{Mod}_{\text{possibility}} \; [\text{Asp}_{\text{habitual}} \; [\text{Asp}_{\text{delayed}} \; [\text{Asp}_{\text{predispositional}}$$
$$[\text{Asp}_{\text{repetetive (I)}} \; [\text{Asp}_{\text{frequentive (I)}} \; [\text{Mod}_{\text{volitional}} \; [\text{Asp}_{\text{celerative (I)}} \; [\text{Asp}_{\text{terminative}}$$
$$[\text{Asp}_{\text{continuative}} \; [\text{Asp}_{\text{perfect (?)}} \; [\text{Asp}_{\text{retrospective}} \; [\text{Asp}_{\text{proximative}} \; [\text{Asp}_{\text{durative}} \; [\text{Asp}_{\text{generic/progressive}}$$
$$[\text{Asp}_{\text{prospective}} \; [\text{Asp}_{\text{inceptive (I)}} \; [\text{Mod}_{\text{obligation}} \; [\text{Mod}_{\text{ability}} \; [\text{Asp}_{\text{frustrative/success}}$$
$$[\text{Mod}_{\text{permission}} \; [\text{Asp}_{\text{conative}} \; [\text{Asp}_{\text{completive (I)}} \; [\text{Voice} \; [\text{Asp}_{\text{celerative (II)}} \; [\text{Asp}_{\text{inceptive (II)}}$$
$$[\text{Asp}_{\text{completive (II)}} \; [\text{Asp}_{\text{repetetive (II)}} \; [\text{Asp}_{\text{frequentive (II)}} \;]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]] \; (\text{Cinque}$$
1999, 106; 2001, 153).

It can be seen that the observed functional sequence in (1) is compatible with Cinque's hierarchy in (2). However, my structural proposal crucially differs Cinque's in that it motivates two different aspectual layers in the syntax (one in the IP domain, and the other in the VP domain), rather than all-in-one inflectional IP domain as proposed by Cinque. See Laca (2004) for a similar conclusion in Romance. Thus, the study has addressed the fundamental questions of how different types of Aspect are syntactically encoded and hierarchically ordered in the structure of the Vietnamese language and how Aspect is relevant for the separation of different structural zones in the functional hierarchy[2]. Through this analysis of Vietnamese data, I have also been able to contribute a number of new perspectives on the theory of Aspect and on the structural architecture of the clause in general. The development of this cartographic approach makes possible a precise formalization of certain problems of learnability, allowing us to specify what semantic-syntactic properties need to be acquired by Chinese L2 learners in their ultimate attainment of Vietnamese Aspect. Among those Aspect-related properties, two negative constraints were subjected to experimental investigation, namely the impossiblility of the atelic/non-completed interpretation with the 'đã' (anterior) + numeral objects sentences; and the impossibility of unergative verbs to permute within the 'làm' causative constructions (in contrast to unergative verbs, unaccusative verbs can occur on either side of the direct object in the 'làm' causative constructions). These constraints are not easily acquirable from positive input, they are rarely, if ever, explicitly taught in the classroom; and—in the latter case, at least, they diverge from L1 (Chinese) grammatical setting. The question investigated in the experimental part of the study was whether L2ers can attain the same underlying knowledge as native speakers. The results of the experiments reported here suggest that even in the intermediate group, L2 learners can correctly distinguish between those sentences which are ambiguous with respect to telicity entailment and those which are obligatorily interpreted as telic. Moreover, some L2 learners are able to correctly judge grammatical acceptability, and also properly distinguish different kinds of ungrammatical sentences even in cases where the L1 diverges away from the target grammar. These results can be taken to show that L2 interlanguage grammars are not completely constrained by the L1 grammar, despite interesting patterns resulting from L1 interference effects, the overall performance of learners was very good, especially those in the advanced group whose results were particularly close to the native speaker control group. The absence of any explicit teaching of these contrasts is consistent with the idea that L2 learners' performance is guided by UG constraints. In this regard, our study contributes to the on-going debate about the accessibility to UG in adult second language acquisition, specifically in support of the Full Acess Hypothesis.

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[2] See Haegeman (2012) for further discussion on the boundary of different zones of the functional sequence and its implication for the Minimalist 'phase' theory.

APPENDIX A - Proficiency test

Chọn MỘT trong các đáp án sau để điền vào chỗ trống:

(Select ONE out of the following choices to fill in the gap)

1. Quý vị …………………… có thắc mắc gì xin hãy giơ tay.
     a. gì   c. đấy
     b. nào   d. ấy

2. Họ chỉ nói là hành khách không ………………… hút thuốc lá trên xe bus, chứ điều này đâu có được viết trên giấy tờ.
     a. được   c. cần
     b. bị   d. phải

3. Hoa ……………………… thông minh lại còn chăm chỉ nữa.
     a. đã   c. có
     b. đang   d. sẽ

4. Món này ăn …………….. ngon nhưng mất công làm quá.
     a. thì   c. mà
     b. là   d. rằng

5. Nếu anh để lộ tin này ra ngoài …………….. anh sẽ phải chịu trách nghiệm trước pháp luật.
     a. nên   c. tuy
     b. vì   d. thì

6. ……….. chợp mắt được một chút thì trời đã sáng.
     a. đã   c. vừa
     b. hãy   d. nếu

7. Phải chi nghe lời anh thì việc đã ……………………
     a. xong   c. cả
     b. nốt   d. cho

8. Những con gà mái mơ …………. là do một tay bà tôi nuôi hết đó.
     a. này   c. đấy
     b. nào   d. đây

9. Người ta kể lại ……………… việc đặt tên cho bút máy bắt nguồn từ một ván bài.
     a. thì   c. tuy
     b. mà   d. rằng

10. Giá vàng và giá đô la biến động ………….. đáng kể.
     a. không   c. chớ
     b. đừng   d. mấy

11. Tôi chưa nói……………….. thì cô ấy đã ngắt lời.
     a. thành   c. rồi
     b. nên   d. xong

12. Anh ấy sống sung sướng cả …………….. đời.

a.	từng	c.	mọi
b.	mỗi	d.	một

13. Ngân hàng Nhà nước Việt Nam cho biết ………………….. việc phát hành hai loại tiền mới này không làm tăng khối lượng tiền trong lưu thông.

a.	là	c.	mà
b.	thì	d.	nếu

14. Nếu anh muốn lắp điều hòa thì anh phải thay toàn bộ hệ thống điện, nếu ………….. sẽ bị quá tải.

a.	chưa	c.	ngừng
b.	chẳng	d.	không

15. Tôi cố ăn……………………. hai bát phở nên giờ thấy no quá.

a.	hết	c.	nên
b.	thành	d.	ra

16. Có ………………. trường hợp mà sự có mặt của họ là thực sự cần thiết.

a.	những	c.	mọi
b.	từng	d.	tất

17. Trong tổng số các dự án đầu tư vào Đồng bằng sông Hồng, tập trung nhiều nhất ………….. ở khu vực thành phố Hà Nội với 190 dự án.

a.	sống	c.	là
b.	có	d.	còn

18. Chị Hoa muốn đi du lịch Châu Âu một chuyến mà tôi không biết chị ấy có xin được visa hay …………….

a.	rồi	c.	chẳng
b.	không	d.	chớ

19. Nhà đã ………………………. gạo ăn rồi.

a.	hết	c.	nốt
b.	xong	d.	cả

20. Trẻ mồ côi không …………….. thiếu thốn về vật chất mà còn thiệt thời về tinh thần.

a.	các	c.	mọi
b.	những	d.	mỗi

21. Hỗn láo với bố mẹ …………… không được.

a.	nghĩ	c.	rằng
b.	cho	d.	là

22. Lâu rồi tôi không liên lạc, không biết chị ấy đã tốt nghiệp…………………?

a.	không	c.	chớ
b.	chăng	d.	chưa

23. Còn ba hôm nữa là về nhà rồi mà chưa mua quà cáp gì cho bà con …………………

a.	cả	c.	gì
b.	cùng	d.	nốt

24. Thầy giáo giảng bài ………………sinh viên cứ ngủ.

a.	vì	c.	hễ
b.	để	d.	mà

25. Hai bên không xô xát nhau vì …………………. người can.

a.	của	c.	có
b.	nên	d.	thường

26. Làm ăn thua lỗ thì …………………. nhà ra đứng đường.

a.	hết	c.	cùng
b.	cả	d.	tất

27. Khi nhà vua chết …………………không có con trai, thì con gái nhà vua sẽ lên làm nữ hoàng.

a.	mà	b.	tuy

      c. rằng   d. để

28. Trong thời gian chờ đợi, họ ……………làm tạm công việc gì để sống qua ngày không?

      a. đã   c. sẽ
      b. có   d. đang

29. Ngoài trời gió to lắm nên tôi phải đóng cửa …………………….

      a. ra   c. lại
      b. sang   d. lên

30. Điều ……………… dư luận đang quan tâm là Chính phủ mới sẽ có chính sách nào để thu hút nhân tài.

      a. là   c. tuy
      b. rằng   d. mà

31. Mọi người xôn xao bàn tán là trước kia vì muốn được nhận vào công ty, Cường ………. hối lộ Ban giám đốc.

      a. có   c. thì
      b. mà   d. là

32. Tiến trình hòa bình giữa Palestine và Israel ……………………… bế tắc.

      a. cùng   c. đến
      b. lại   d. đi

33. Tôi ………………đã làm thì phải làm đến nơi đến chốn.

      a. thì   c. là
      b. mà   d. rằng

34. Họ chỉ làm …………… hai ngày công mà đã đòi tiền lương rồi.

      a. những   c. có
      b. các   d. từng

35. Ông ấy ngồi vào bàn viết ……………… bức thư.

      a. đã   c. mới
      b. đang   d. lại

36. Chị ấy đã sang định cư ở Mỹ lâu rồi …………………………!

      a. không   c. thế
      b. mà   d. hả

37. Sự phát triển của kinh tế Mỹ là có thật, nhưng mô hình kinh tế của Mỹ có thực sự là tốt nhất mà thế giới ………………đi theo hay không.

      a. được   c. nên
      b. bị   d. thành

38. Không gặp phải khó khăn này thì chúng tôi đã xong việc ……………………

      a. rồi   c. hết
      b. nốt   d. thành

39. Ông ấy …………… ngồi đó đọc sách được năm tiếng rồi.

      a. đã   c. vừa
      b. sẽ   d. mới

40. Tôi cố ăn hết ba bát cơm ……………… quá no.

      a. mà   c. nên
      b. vì   d. để

41. Mấy giờ ………..?

      a. chưa   c. mà
      b. rồi   d. chứ

42. Mới ba mươi tuổi mà cô ấy ………………….. tiến sỹ rồi.

      a. sẽ   c. đã
      b. từng   d. chưa

43. Họ ……………… lệnh tiếp tục phục kích trong trận tới.

    a. là   c. còn

    b. bị   d. được

44. Thế ……………. công ty chè Mộc Châu đã ra đời sau bao nhiêu cố gắng của Ban lãnh đạo.

    a. rằng   c. rồi

    b. hả   d. vậy

45. Hai năm nữa, khi anh ấy quay lại Việt Nam thì tôi _____ có con rồi.

    a. sẽ   c. từng

    b. đã   d. đã từng

46. Bộ anh tưởng tôi giàu lắm muốn mua gì cũng …………….. à?

    a. có   c. nên

    b. được   d. phải

47. Nhà cửa sao ầm ĩ quá. Có chuyện gì ………………..?

    a. thế   c. đâu

    b. nhé   d. mà

48. Lúc tôi đến, cả bọn đã ……………………… ... đánh chén rồi.

    a. sẽ   c. không

    b. chưa   d. đang

49. Anh giáo không kiếm …………….. việc làm, phải về quê ăn bám vợ.

    a. nốt   c. thành

    b. hết   d. được

50. Một năm qua hai bạn đã làm được gì, kể tôi nghe …………………

    a. thế

    b. nào

    c. sao

    d. đâu

APPENDIX B - Truth Value Judgment Test

1. Truth Value Judgment Test Ver.1

1.1. List of 16 Stimuli with 'đã + demonstrative objects'

1	Nếu nói **'Nó đã ăn cái bánh đó'**, liệu có khả năng nó vẫn chưa ăn xong cái bánh đó không? If it is reported that 'He đã eat that cake', is there any possibility that he has not finished that cake?
2	Nếu nói **'Hoa đã nấu nồi cơm đó'**, liệu có khả năng Hoa vẫn chưa nấu xong nồi cơm đó không? If it is reported that 'Hoa đã cook that pot of rice', is there any possibility that Hoa has not finished cooking that pot of rice?
3	Nếu nói **'Mai đã nướng xiên thịt đó'**, liệu có khả năng Mai vẫn chưa nướng xong xiên thịt đó không? If it is reported that 'Mai đã grill that skew of meet', is there any possibility that Mai has not finished grilling that skew of meet?
4	Nếu nói **'Hoàn đã rán đĩa khoai tây ấy'**, liệu có khả năng Hoàn vẫn chưa rán xong đĩa khoai tây ấy không? If it is reported that 'Hoan đã fry that plate of chips', is there any possibility that Hoan has not finished frying that plate of chips?
5	Nếu nói **'Cu Tý đã tô bức tranh ấy'**, liệu có khả năng cu Tý vẫn chưa tô xong bức tranh ấy không? If it is reported that 'Cu Ty đã paint that picture', is there any possibility that Cu Ty has not finished painting that picture?
6	Nếu nói **'Thầy Minh đã viết cuốn tiểu thuyết đó',** liệu có khả năng thầy Minh vẫn chưa viết xong cuốn tiểu thuyết đó không? If it is reported that 'Teacher Minh đã write that novel', is there any possibility that Teacher Minh has not finished writing that novel?
7	Nếu nói **'Anh Bình đã sơn cái cửa đó'**, liệu có khả năng anh Bình vẫn chưa sơn xong cái cửa đó không? If it is reported that 'Binh đã paint that door', is there any possibility that Binh has not finished painting that door?
8	Nếu nói **'Mẹ đã thêu cái khăn quàng đó'**, liệu có khả năng mẹ vẫn chưa thêu xong cái khăn quàng đó không? If it is reported that 'Mommy đã embroider that scarf', is there any possibility that she has not finished embroidering that scarf?
9	Nếu nói **'Nam đã lau cái bàn ấy'**, liệu có khả năng Nam vẫn chưa lau xong cái bàn ấy không? If it is reported that 'Nam đã wipe that table', is there any possibility that Nam has not finished wiping that table?
10	Nếu nói **'Họ đã xây cây cầu đó'**, liệu có khả năng họ vẫn chưa xây xong cây cầu đó không?

	If it is reported that 'They đã build that bridge', is there any possibility that they has not finished building that bridge?
11	Nếu nói **'Chị đã dệt cái áo đó'**, liệu có khả năng chị vẫn chưa dệt xong cái áo đó không? If it is reported that 'She đã weave that shirt', is there any possibility that she has not finished weaving that shirt?
12	Nếu nói **'Anh Sơn đã mài cái kéo đó'**, liệu có khả năng anh Sơn vẫn chưa mài xong cái kéo đó không? If it is reported that 'Sơn đã sharpen those scissors', is there any possibility that he has not finished sharpening those scissors?
13	Nếu nói **'Nó đã nung cái bình gốm đó'**, liệu có khả năng nó vẫn chưa nung xong cái bình gốm đó không? If it is reported that 'He đã heat that ceramic vase', is there any possibility that he has not finished heating that ceramic vase?
14	Nếu nói **'Liên đã quét gian nhà đó'**, liệu có khả năng Liên vẫn chưa quét xong gian nhà đó không? If it is reported that 'Lien đã sweep the room', is there any possibility that she has not finished sweeping that room?
15	Nếu nói **'Bác Hoà đã tạc bức tượng ấy'**, liệu có khả năng bác Hoà vẫn chưa tạc xong bức tượng ấy không? If it is reported that 'Uncle Hoa đã carve that statue', is there any possibility that he has not finished carving that statue?
16	Nếu nói **'Bố đã sửa cái máy giặt ấy'**, liệu có khả năng bố vẫn chưa sửa xong cái máy giặt ấy không? If it is reported that 'Daddy đã fix that washing machine', is there any possibility that he has not finished fixing that washing machine?

1.2. List of 16 Stimuli with 'đã + numeral objects':

1	Nếu nói **'Nó đã ăn hai cái bánh'**, liệu có khả năng nó vẫn chưa ăn xong cái bánh thứ hai không? If it is reported that 'He đã eat two cakes', is there any possibility that he has not finished the second cake?
2	Nếu nói **'Hoa đã nấu hai nồi cơm'**, liệu có khả năng Hoa vẫn chưa nấu xong nồi cơm thứ hai không? If it is reported that 'Hoa đã cook two pots of rice', is there any possibility that Hoa has not finished cooking the second pot of rice?
3	Nếu nói **'Mai đã nướng ba xiên thịt'**, liệu có khả năng Mai vẫn chưa nướng xong xiên thịt thứ ba không? If it is reported that 'Mai đã grill three skews of meet', is there any possibility that Mai has not finished grilling the third skew of meet?
4	Nếu nói **'Hoàn đã rán ba đĩa khoai tây'**, liệu có khả năng Hoàn vẫn chưa rán xong đĩa khoai tây thứ ba không? If it is reported that 'Hoan đã fry three plates of chips', is there any possibility that Hoan has not finished frying the third plate of chips?
5	Nếu nói **'Cu Tý đã tô ba bức tranh'**, liệu có khả năng cu Tý vẫn chưa tô xong bức tranh thứ ba không? If it is reported that 'Cu Ty đã paint three pictures', is there any possibility that Cu Ty has not finished painting the third picture?
6	Nếu nói **'Thầy Minh đã viết hai cuốn tiểu thuyết',** liệu có khả năng thầy Minh vẫn chưa viết xong cuốn tiểu thuyết thứ hai không? If it is reported that 'Teacher Minh đã write two novels', is there any possibility that Teacher Minh has not finished writing the second novel?

7	Nếu nói '**Anh Bình đã sơn bốn cái cửa**', liệu có khả năng anh Bình vẫn chưa sơn xong cái cửa thứ tư không?
	If it is reported that 'Binh đã paint four doors', is there any possibility that Binh has not finished painting the fourth door?
8	Nếu nói '**Mẹ đã thêu năm cái khăn quàng**', liệu có khả năng mẹ vẫn chưa thêu xong cái khăn quàng thứ năm không?
	If it is reported that 'Mommy đã embroider five scarves, is there any possibility that she has not finished embroidering the fifth scarf?
9	Nếu nói '**Nam đã lau ba cái bàn**', liệu có khả năng Nam vẫn chưa lau xong cái bàn thứ ba không?
	If it is reported that 'Nam đã wipe three tables', is there any possibility that Nam has not finished wiping the third table?
10	Nếu nói '**Họ đã xây hai cây cầu**', liệu có khả năng họ vẫn chưa xây xong cây cầu thứ hai không?
	If it is reported that 'They đã build two bridges', is there any possibility that they has not finished building the second bridge?
11	Nếu nói '**Chị đã dệt ba cái áo**', liệu có khả năng chị vẫn chưa dệt xong cái áo thứ ba không?
	If it is reported that 'She đã weave three shirts', is there any possibility that she has not finished weaving the third shirt?
12	Nếu nói '**Anh Sơn đã mài hai cái kéo**', liệu có khả năng anh Sơn vẫn chưa mài xong cái kéo thứ hai không?
	If it is reported that 'Sơn đã sharpen two scissors', is there any possibility that he has not finished sharpening the second scissors?
13	Nếu nói '**Nó đã nung ba cái bình gốm**', liệu có khả năng nó vẫn chưa nung xong cái bình gốm thứ ba không?
	If it is reported that 'He đã heat three ceramic vases', is there any possibility that he has not finished heating the third ceramic vase?
14	Nếu nói '**Liên đã quét hai gian nhà**', liệu có khả năng Liên vẫn chưa quét xong gian nhà thứ hai không?
	If it is reported that 'Lien đã clean two rooms', is there any possibility that she has not finished cleaning the second room?
15	Nếu nói '**Bác Hoà đã tạc bốn bức tượng**', liệu có khả năng bác Hoà vẫn chưa tạc xong bức tượng thứ tư không?
	If it is reported that 'Uncle Hoa đã carve four statues', is there any possibility that he has not finished carving the fourth statue?
16	Nếu nói '**Bố đã sửa hai cái máy giặt**', liệu có khả năng bố vẫn chưa sửa xong cái máy giặt thứ hai không?
	If it is reported that 'Daddy đã fix two washing machines', is there any possibility that he has not finished fixing the second washing machine?

1.3. List of 16 Distractors with 'sẽ'

1	Nếu nói '**Nó sẽ ăn cái bánh đó**', liệu có khả năng nó đã ăn xong cái bánh đó rồi không?
	If it is reported that 'He sẽ eat that cake', is there any possibility that he has already finished eating that cake?
2	Nếu nói '**Nó sẽ ăn hai cái bánh**', liệu có khả năng nó đã ăn xong cả hai cái bánh đó rồi không?
	If it is reported that 'He sẽ eat two cakes', is there any possibility that he has already finished eating both these two cakes?
3	Nếu nói '**Anh Bình sẽ sơn cái cửa đó**', liệu có khả năng anh Bình đã sơn xong cái cửa đó rồi không?
	If it is reported that 'Binh sẽ paint that door', is there any possibility that Binh has already finished painting that door?

4	Nếu nói '**Anh Bình sẽ sơn bốn cái cửa**', liệu có khả năng anh Bình đã sơn xong cả bốn cái cửa đó rồi không? If it is reported that 'Binh sẽ paint four doors', is there any possibility that Binh has already finished painting all of those four doors?
5	Nếu nói '**Mẹ sẽ thêu cái khăn quàng đó**', liệu có khả năng mẹ đã thêu xong cái khăn quàng đó rồi không? If it is reported that 'Mommny sẽ embroider that scarf', is there any possibility that mommy has already finished embroidering that scarf?
6	Nếu nói '**Mẹ sẽ thêu năm cái khăn quàng**', liệu có khả năng mẹ đã thêu xong cả năm cái khăn quàng đó rồi không? If it is reported that 'Mommy sẽ embroider five scarves', is there any possibility that Mommy has already finished embroidering all of those five scarves?
7	Nếu nói '**Thầy Minh sẽ viết cuốn tiểu thuyết đó**', liệu có khả năng thầy Minh đã viết xong cuốn tiểu thuyết đó rồi không? If it is reported that 'Teacher Minh sẽ write that novel', is there any possibility that Teacher Minh has already finished writing that novel?
8	Nếu nói '**Thầy Minh sẽ viết hai cuốn tiểu thuyết**', liệu có khả năng thầy Minh đã viết xong cả hai cuốn tiểu thuyết đó rồi không? If it is reported that 'Teacher Minh sẽ write two novels', is there any possibility that Teacher Minh has already finished writing both these two novels?
9	Nếu nói '**Hoa sẽ nấu nồi cơm đó**', liệu có khả năng Hoa đã nấu xong nồi cơm đó rồi không? If it is reported that 'Hoa sẽ cook that pot of rice', is there any possibility that Hoa has already finished cooking that pot of rice?
10	Nếu nói '**Hoa sẽ nấu hai nồi cơm**', liệu có khả năng Hoa đã nấu xong cả hai nồi cơm đó rồi không? If it is reported that 'Hoa sẽ cook two pots of rice', is there any possibility that Hoa has already finished both these two pots of rice?
11	Nếu nói '**Mai sẽ nướng xiên thịt đó**', liệu có khả năng Mai đã nướng xong xiên thịt đó rồi không? If it is reported that 'Mai sẽ grill that skew of meet', is there any possibility that Mai has already finished grilling that skew of meet?
12	Nếu nói '**Mai sẽ nướng ba xiên thịt**', liệu có khả năng Mai đã nướng xong cả ba xiên thịt đó rồi không? If it is reported that 'Mai sẽ grill three skews of meet', is there any possibility that Mai has already finished grilling all those three skews of meet?
13	Nếu nói '**Hoàn sẽ rán đĩa khoai tây ấy**', liệu có khả năng Hoàn đã rán xong đĩa khoai tây ấy rồi không? If it is reported that 'Hoan sẽ fry that plate of chips', is there any possibility that Hoàn has already finished frying that plate of chips?
14	Nếu nói '**Hoàn sẽ rán ba đĩa khoai tây**', liệu có khả năng Hoàn đã rán xong cả ba đĩa khoai tây ấy rồi không? If it is reported that 'Hoan sẽ fry three plates of chips', is there any possibility that Hoan has already finished frying all of those three plates of chips?
15	Nếu nói '**Cu Tý sẽ tô bức tranh ấy**', liệu có khả năng cu Tý đã tô xong bức tranh ấy rồi không? If it is reported that 'Cu Ty sẽ paint that picture', is there any possibility that cu Ty has already finished painting that picture?
16	Nếu nói '**Cu Tý sẽ tô ba bức tranh**', liệu có khả năng cu Tý đã tô xong cả ba bức tranh ấy rồi không? If it is reported that 'Cu Ty sẽ paint three pictures', is there any possibility that cu Ty has already finished painting all those three pictures?

1.4. List of 16 Distractors with 'đang':

1	Nếu nói '**Nó đang nung cái bình gốm đó'**, liệu có khả năng nó đã nung xong cái bình gốm đó rồi không? If it is reported that 'He đang heat that ceramic vase', is there any possibility that he has already finished heating that ceramic vase?
2	Nếu nói '**Nó đang nung ba cái bình gốm'**, liệu có khả năng nó đã nung xong cả ba cái bình gốm đó rồi không? If it is reported that 'He đang heat three ceramic vases', is there any possibility that he has already finished heating all of those three ceramic vases?
3	Nếu nói '**Nam đang lau cái bàn ấy'**, liệu có khả năng Nam đã lau xong cái bàn ấy rồi không? If it is reported that 'Nam đang clean that table', is there any possibility that Nam has already finished painting that table?
4	Nếu nói '**Nam đang lau hai cái bàn'**, liệu có khả năng Nam đã lau xong cả hai cái bàn ấy rồi không? If it is reported that 'Nam đang clean two tables', is there any possibility that Nam has already finished cleaning both the two tables?
5	Nếu nói '**Anh Sơn đang mài cái kéo đó'**, liệu có khả năng anh Sơn đã mài xong cái kéo đó rồi không? If it is reported that 'Sơn đang sharpen that scissors', is there any possibility that Sơn has already finished sharpening that scissors?
6	Nếu nói '**Anh Sơn đang mài hai cái kéo'**, liệu có khả năng anh Sơn đã mài xong cả hai cái kéo đó rồi không? If it is reported that 'Sơn đang sharpen two scissors', is there any possibility that Sơn has already finished sharpening both the two scissors?
7	Nếu nói '**Họ đang xây cây cầu đó'**, liệu có khả năng họ đã xây xong cây cầu đó rồi không? If it is reported that 'They đang build that bridge', is there any possibility that they has already finished building that bridge?
8	Nếu nói '**Họ đang xây hai cây cầu'**, liệu có khả năng họ đã xây xong cả hai cây cầu đó rồi không? If it is reported that 'They đang build two bridges', is there any possibility that they has already finished building both the two bridges?
9	Nếu nói '**Bố đang sửa cái máy giặt ấy'**, liệu có khả năng bố đã sửa xong cái máy giặt ấy rồi không? If it is reported that 'Daddy đang fix that washing machine', is there any possibility that Daddy has already finished fixing that washing machine?
10	Nếu nói '**Bố đang sửa hai cái máy giặt'**, liệu có khả năng bố đã sửa xong cả hai cái máy giặt ấy rồi không? If it is reported that 'Daddy đang fix two washing machines', is there any possibility that Daddy has already finished fixing both the two washing machines?
11	Nếu nói '**Chị đang dệt cái áo đó'**, liệu có khả năng chị đã dệt xong cái áo đó rồi không? If it is reported that 'She đang weave that shirt', is there any possibility that she has already finished weaving that shirt?
12	Nếu nói '**Chị đang dệt ba cái áo'**, liệu có khả năng chị đã dệt xong cả ba cái áo đó rồi không? If it is reported that 'She đang weave three shirts', is there any possibility that she has already finished weaving all of those three shirts?
13	Nếu nói '**Bác Hoà đang tạc bức tượng ấy'**, liệu có khả năng bác Hoà đã tạc xong bức tượng ấy rồi không? If it is reported that 'Uncle Hoà đang carve that statue', is there any possibility that Uncle Hoà has already finished carving that statue?
14	Nếu nói '**Bác Hoà đang tạc bốn bức tượng'**, liệu có khả năng bác Hoà đã tạc xong cả bốn bức tượng ấy rồi không?

	If it is reported that 'Uncle Hoà đang carve four statues', is there any possibility that Uncle Hoà has already finished carving all of those four statues?
15	Nếu nói **'Liên đang quét hai gian nhà'**, liệu có khả năng Liên đã quét xong cả hai gian nhà đó rồi không?
	If it is reported that 'Liên đang sweep two rooms', is there any possibility that Liên has already finished sweeping both the two rooms?
16	Nếu nói **'Liên đang quét gian nhà đó'**, liệu có khả năng Liên đã quét xong gian nhà đó rồi không?
	If it is reported that 'Liên đang sweep that room', is there any possibility that Liên has already finished sweeping that room?

2. Truth Value Judgment Test Ver.2

2.1. List of 16 Stimuli with 'đã + demonstrative objects':

1	Nếu nói **'Nhung đã rửa cái nồi đó'**, liệu có khả năng Nhung vẫn chưa rửa xong cái nồi đó không?
	If it is reported that 'Nhung đã clean that cooking pot', is there any possibility that Nhung has not finished cleaning that pot?
2	Nếu nói **'Hoà đã đun nồi canh đó'**, liệu có khả năng Hoà vẫn chưa đun xong nồi canh đó không?
	If it is reported that 'Hoa đã heat that pot of soup', is there any possibility that Hoa has not finished heating that pot of soup?
3	Nếu nói **'Anh Cường đã rèn con dao đó'**, liệu có khả năng anh Cường vẫn chưa rèn xong con dao đó không?
	If it is reported that 'Cuong đã forge that knife', is there any possibility that Cuong has not finished forging that knife?
4	Nếu nói **'Nó đã hút điếu thuốc đó'**, liệu có khả năng nó vẫn chưa hút xong điếu thuốc đó không?
	If it is reported that 'He đã smoke that cigarette', is there any possibility that he has not finished smoking that cigarette?
5	Nếu nói **'Bác Phương đã khắc miếng gỗ đó'**, liệu có khả năng bác Phương vẫn chưa khắc xong miếng gỗ đó không?
	If it is reported that 'Uncle Phuong đã engrave that piece of wood', is there any possibility that Uncle Phuong has not finished engraving that piece of wood?
6	Nếu nói **'Mẹ đã may cái quần đó'**, liệu có khả năng mẹ vẫn chưa may xong cái quần đó không?
	If it is reported that 'Mommy đã sew those trousers', is there any possibility that mommy has not finished sewing those trousers?
7	Nếu nói **'Anh Tuấn đã vẽ tấm bản đồ ấy'**, liệu có khả năng anh Tuấn vẫn chưa vẽ xong tấm bản đồ ấy không?
	If it is reported that 'Tuan đã draw that map', is there any possibility that Tuan has not finished drawing that map?
8	Nếu nói **'Thuỷ đã chiên đĩa đậu đó'**, liệu có khả năng Thuỷ vẫn chưa chiên xong đĩa đậu đó không?
	If it is reported that 'Thuy đã fry that plate of toufu', is there any possibility that Thuy has not finished frying that plate of toufu?
9	Nếu nói **'Lớp trưởng đã xoá cái bảng ấy'**, liệu có khả năng lớp trưởng vẫn chưa xoá xong cái bảng ấy không?
	If it is reported that 'The class representative đã wipe that board', is there any possibility that

	the class representative has not finished wiping that board?
10	Nếu nói **'Họ đã lắp cái máng nước đó',** liệu có khả năng họ vẫn chưa lắp xong cái máng nước đó không? If it is reported that 'They đã fit that water trough', is there any possibility that they has not finished fitting that water trough?
11	Nếu nói **'Nó đã đọc quyển sách đó',** liệu có khả năng nó vẫn chưa đọc xong quyển sách đó không? If it is reported that 'He đã read that book', is there any possibility that he has not finished reading that book?
12	Nếu nói **'Chị Vân đã đan cái mũ đó',** liệu có khả năng chị Vân vẫn chưa đan xong cái mũ đó không? If it is reported that 'Ban đã knit that hat', is there any possibility that Vân has not finished knitting that hat?
13	Nếu nói **'Họ đã dựng bức tường ấy',** liệu có khả năng họ vẫn chưa dựng xong bức tường ấy không? If it is reported that 'They đã erect that wall', is there any possibility that they has not finished erecting that wall?
14	Nếu nói **'Huyền đã luộc con gà đó',** liệu có khả năng Huyền vẫn chưa luộc xong con gà đó không? If it is reported that 'Huyền đã boil that chicken', is there any possibility that Huyền has not finished boiling that chicken?
15	Nếu nói **'Cô Nga đã soạn bản nhạc ấy',** liệu có khả năng cô Nga vẫn chưa soạn xong bản nhạc ấy không? If it is reported that 'Nga đã compose that music sheet', is there any possibility that Nga has not finished composing that music sheet?
16	Nếu nói **'Ông nội đã chữa cái xe đạp đó',** liệu có khả năng ông nội vẫn chưa chữa xong cái xe đạp đó không? If it is reported that 'Grandfather đã fix that bicycle', is there any possibility that Grandfather has not finished fixing that bicycle?

2.2. List of 16 Stimuli with 'đã + numeral objects':

1	Nếu nói **'Nhung đã rửa ba cái nồi',** liệu có khả năng Nhung vẫn chưa rửa xong cái nồi thứ ba không? If it is reported that 'Nhung đã clean three cooking pots', is there any possibility that Nhung has not finished cleaning the third pot?
2	Nếu nói **'Hoà đã đun hai nồi canh',** liệu có khả năng Hoà vẫn chưa đun xong nồi canh thứ hai không? If it is reported that 'Hoa đã heat two pots of soup', is there any possibility that Hoa has not finished heating the second pot of soup?
3	Nếu nói **'Anh Cường đã rèn hai con dao',** liệu có khả năng anh Cường vẫn chưa rèn xong con dao thứ hai không? If it is reported that 'Cuong đã forge two knives', is there any possibility that Cuong has not finished forging the second knife?
4	Nếu nói **'Nó đã hút hai điếu thuốc',** liệu có khả năng nó vẫn chưa hút xong điếu thuốc thứ hai không? If it is reported that 'He đã smoke two cigarettes', is there any possibility that he has not finished smoking the second cigarette?
5	Nếu nói **'Bác Phương đã khắc bốn miếng gỗ',** liệu có khả năng bác Phương vẫn chưa khắc xong miếng gỗ thứ tư không? If it is reported that 'Uncle Phuong đã engrave four pieces of wood', is there any possibility that Uncle Phuong has not finished engraving the fourth piece of wood?

6	Nếu nói **'Mẹ đã may ba cái quần'**, liệu có khả năng mẹ vẫn chưa may xong cái quần thứ ba không?
	If it is reported that 'Mommy đã sew three trousers', is there any possibility that mommy has not finished sewing the third trousers?
7	Nếu nói **'Anh Tuấn đã vẽ ba tấm bản đồ'**, liệu có khả năng anh Tuấn vẫn chưa vẽ xong tấm bản đồ thứ ba không?
	If it is reported that 'Tuan đã draw three maps', is there any possibility that Tuan has not finished drawing the third map?
8	Nếu nói **'Thuỷ đã chiên ba đĩa đậu'**, liệu có khả năng Thuỷ vẫn chưa chiên xong đĩa đậu thứ ba không?
	If it is reported that 'Thuy đã fry three plates of toufu', is there any possibility that Thuy has not finished frying the third plate of toufu?
9	Nếu nói **'Lớp trưởng đã xoá hai cái bảng'**, liệu có khả năng lớp trưởng vẫn chưa xoá xong cái bảng thứ hai không?
	If it is reported that 'The class representative đã wipe two boards', is there any possibility that the class representative has not finished wiping the second board?
10	Nếu nói **'Họ đã lắp hai cái máng nước'**, liệu có khả năng họ vẫn chưa lắp xong cái máng nước thứ hai không?
	If it is reported that 'They đã fit two water troughs', is there any possibility that they has not finished fitting the second water trough?
11	Nếu nói **'Nó đã đọc hai quyển sách'**, liệu có khả năng nó vẫn chưa đọc xong quyển sách thứ hai không?
	If it is reported that 'He đã read two books', is there any possibility that he has not finished reading the second book?
12	Nếu nói **'Chị Vân đã đan bốn cái mũ'**, liệu có khả năng chị Vân vẫn chưa đan xong cái mũ thứ tư không?
	If it is reported that 'Ban đã knit four hats', is there any possibility that Vân has not finished knitting the fourth hat?
13	Nếu nói **'Họ đã dựng bốn bức tường'**, liệu có khả năng họ vẫn chưa dựng xong bức tường thứ tư không?
	If it is reported that 'They đã erect four walls', is there any possibility that they has not finished erecting the fourth wall?
14	Nếu nói **'Huyền đã luộc hai con gà'**, liệu có khả năng Huyền vẫn chưa luộc xong con gà thứ hai không?
	If it is reported that 'Huyền đã boil two chickens', is there any possibility that Huyền has not finished boiling the second chicken?
15	Nếu nói **'Cô Nga đã soạn hai bản nhạc'**, liệu có khả năng cô Nga vẫn chưa soạn xong bản nhạc thứ hai không?
	If it is reported that 'Nga đã compose two music sheets', is there any possibility that Nga has not finished composing the second music sheet?
16	Nếu nói **'Ông nội đã chữa hai cái xe đạp'**, liệu có khả năng ông nội vẫn chưa chữa xong cái xe đạp thứ hai không?
	If it is reported that 'Grandfather đã fix two bicycles', is there any possibility that Grandfather has not finished fixing the second bicycle?

2.3. List of 16 Distractors with 'sẽ':

1	Nếu nói **'Cô Nga sẽ soạn bản nhạc ấy'**, liệu có khả năng cô Nga đã soạn xong bản nhạc ấy rồi không?
	If it is reported that 'Nga sẽ compose that music sheet', is there any possibility that Nga has already finished composing that music sheet?
2	Nếu nói **'Cô Nga sẽ hai soạn bản nhạc'**, liệu có khả năng cô Nga đã soạn xong cả hai bản nhạc ấy rồi không?

	If it is reported that 'Nga sẽ compose two music sheets', is there any possibility that Nga has already finished composing those two music sheets?
3	Nếu nói **'Hoà sẽ đun nồi canh đó'**, liệu có khả năng Hoà đã đun xong nồi canh đó rồi không? If it is reported that 'Hoa sẽ heat that pot of soup', is there any possibility that Hoa has already finished heating that pot of soup?
4	Nếu nói **'Hoà sẽ đun hai nồi canh'**, liệu có khả năng Hoà đã đun xong cả hai nồi canh đó rồi không? If it is reported that 'Hoa sẽ heat two pots of soup', is there any possibility that Hoa has already finished heating those two pots of soup?
5	Nếu nói **'Thuỷ sẽ chiên đĩa đậu đó'**, liệu có khả năng Thuỷ đã chiên xong đĩa đậu đó rồi không? If it is reported that 'Thuy sẽ fry that plate of toufu', is there any possibility that Thuy has already finished frying that plate of toufu?
6	Nếu nói **'Thuỷ sẽ chiên ba đĩa đậu'**, liệu có khả năng Thuỷ đã chiên xong cả ba đĩa đậu đó rồi không? If it is reported that 'Thuy sẽ fry three plates of toufu', is there any possibility that Thuy has already finished frying those three plates of toufu?
7	Nếu nói **'Anh Tuấn sẽ vẽ tấm bản đồ ấy'**, liệu có khả năng anh Tuấn đã vẽ xong tấm bản đồ ấy rồi không? If it is reported that 'Tuan sẽ draw that map', is there any possibility that Tuan has already finished drawing that map?
8	Nếu nói **'Anh Tuấn sẽ vẽ ba tấm bản đồ'**, liệu có khả năng anh Tuấn đã vẽ xong cả ba tấm bản đồ ấy rồi không? If it is reported that 'Tuan sẽ draw three maps', is there any possibility that Tuan has already finished drawing those three maps?
9	Nếu nói **'Nó sẽ hút điếu thuốc đó'**, liệu có khả năng nó đã hút xong điếu thuốc đó rồi không? If it is reported that 'He sẽ smoke that cigarette', is there any possibility that he has already finished smoking that cigarette?
10	Nếu nói **'Nó sẽ hút hai điếu thuốc'**, liệu có khả năng nó đã hút xong cả hai điếu thuốc đó rồi không? If it is reported that 'He sẽ smoke two cigarettes', is there any possibility that he has already finished smoking those two cigarettes?
11	Nếu nói **'Nó sẽ đọc quyển sách đó'**, liệu có khả năng nó đã đọc xong quyển sách đó rồi không? If it is reported that 'He sẽ read that book', is there any possibility that he has already finished reading that book?
12	Nếu nói **'Nó sẽ đọc hai quyển sách'**, liệu có khả năng nó đã đọc xong cả hai quyển sách đó rồi không? If it is reported that 'He sẽ read two books', is there any possibility that he has already finished reading those two books?
13	Nếu nói **'Huyền sẽ luộc con gà đó'**, liệu có khả năng Huyền đã luộc xong con gà đó rồi không? If it is reported that 'Huyen sẽ boil that chicken', is there any possibility that Huyền has already finished boiling that chicken?
14	Nếu nói **'Huyền sẽ luộc hai con gà'**, liệu có khả năng Huyền đã luộc xong cả hai con gà đó rồi không? If it is reported that 'Huyen sẽ boil two chickens', is there any possibility that Huyen has already finished boiling those two chickens?
15	Nếu nói **'Chị Vân sẽ đan cái mũ đó'**, liệu có khả năng chị Vân đã đan xong cái mũ đó rồi không? If it is reported that 'Van sẽ knit that hat', is there any possibility that Van has already finished knitting that hat?
16	Nếu nói **'Chị Vân sẽ đan bốn cái mũ '**, liệu có khả năng chị Vân đã đan xong cả bốn cái mũ

đó rồi không?

If it is reported that 'Van sẽ knit four hats', is there any possibility that Van has already finished knitting those four hats?

2.4. List of 16 Distractors with 'đang':

1	Nếu nói **'Bác Phương đang khắc miếng gỗ đó'**, liệu có khả năng bác Phương đã khắc xong miếng gỗ đó rồi không? If it is reported that 'Uncle Phuong đang engrave that piece of wood', is there any possibility that Uncle Phuong has already finished engraving that piece of wood?
2	Nếu nói **'Bác Phương đang khắc bốn miếng gỗ'**, liệu có khả năng bác Phương đã khắc xong cả bốn miếng gỗ đó rồi không? If it is reported that 'Uncle Phương đang engrave four pieces of wood', is there any possibility that uncle Phương has already finished engraving all those four pieces of wood?
3	Nếu nói **'Anh Cường đang rèn con dao đó'**, liệu có khả năng anh Cường đã rèn xong con dao đó rồi không? If it is reported that 'Cường đang forge that knife', is there any possibility that Cường has already finished forging that knife?
4	Nếu nói **'Anh Cường đang rèn hai con dao'**, liệu có khả năng anh Cường đã rèn xong cả hai con dao đó rồi không? If it is reported that 'Cường đang forge two knives', is there any possibility that Cường has already finished forging those two knives?
5	Nếu nói **'Họ đang dựng bức tường ấy'**, liệu có khả năng họ đã dựng xong bức tường ấy rồi không? If it is reported that 'They đang erect that wall', is there any possibility that they has already finished erecting that wall?
6	Nếu nói **'Họ đang dựng bốn bức tường'**, liệu có khả năng họ đã dựng xong cả bốn bức tường ấy rồi không? If it is reported that 'They đang erect four walls', is there any possibility that they has already finished erecting all of those four walls?
7	Nếu nói **'Nhung đang rửa cái nồi đó'**, liệu có khả năng Nhung đã rửa xong cái nồi đó rồi không? If it is reported that 'Nhung đang clean that cooking pot', is there any possibility that Nhung has already finished cleaning that cooking pot?
8	Nếu nói **'Nhung đang rửa ba cái nồi'**, liệu có khả năng Nhung đã rửa xong cả ba cái nồi đó rồi không? If it is reported that 'Nhung đang clean three cooking pots', is there any possibility that Nhung has already finished cleaning all those three cooking pots?
9	Nếu nói **'Ông nội đang chữa cái xe đạp đó'**, liệu có khả năng ông nội đã chữa xong cái xe đạp đó rồi không? If it is reported that 'Grandfather đang fix that bicycle', is there any possibility that grandfather has already finished fixing that bicycle?
10	Nếu nói **'Ông nội đang chữa hai cái xe đạp'**, liệu có khả năng ông nội đã chữa xong cả hai cái xe đạp đó rồi không? If it is reported that 'Grandfather đang fix two bicycles', is there any possibility that grandfather has already finished fixing those two bicycles?
11	Nếu nói **'Lớp trưởng đang xoá cái bảng ấy'**, liệu có khả năng lớp trưởng đã xoá xong cái bảng ấy rồi không? If it is reported that 'The class representative đang clean that board', is there any possibility that the class representative has already finished cleaning that board?
12	Nếu nói **'Lớp trưởng đang xoá hai cái bảng'**, liệu có khả năng lớp trưởng đã xoá xong cả hai cái bảng ấy rồi không? If it is reported that 'The class representative đang clean two boards', is there any possibility

	that the class representative has already finished cleaning those two boards?
13	Nếu nói '**Mẹ đang may cái quần đó',** liệu có khả năng mẹ đã may xong cái quần đó rồi không? If it is reported that 'Mommny đang sew those trousers', is there any possibility that mommy has already finished sewing that trousers?
14	Nếu nói '**Mẹ đang may ba cái quần',** liệu có khả năng mẹ đã may xong cả ba cái quần đó rồi không? If it is reported that 'Mommy đang sew three trousers', is there any possibility that mommy has already finished sewing those three trousers?
15	Nếu nói '**Họ đang lắp cái máng nước đó',** liệu có khả năng họ đã lắp xong cái máng nước đó rồi không? If it is reported that 'They đang fit that water trough', is there any possibility that they has already finished fitting that water trough?
16	Nếu nói '**Họ đang lắp hai cái máng nước',** liệu có khả năng họ đã lắp xong cả hai cái máng nước đó rồi không? If it is reported that 'They đang fit two water troughs', is there any possibility that they has already finished fitting those two water troughs?

APPENDIX C - Sentence Matching Test

1. Sentence Matching Test Version 1

1.1. Tested sentence type A: Non-inverted unaccusative

1	Tôi làm cái áo rách	I made the shirt torn
2	Nó làm cái que gãy	He made the stick broke
3	Tôi làm lọ hoa bể	I made the vase broke
4	Tôi làm cái ghế đổ	I made the chair fell
5	Nó làm cái bát mẻ	He made the bowl chipped
6	Tôi làm cái ly rạn	I made the glass cracked
7	Nó làm cái dây giãn	He made the rope slackened
8	Nó làm cái vòng méo	He made the bangle ill-shaped
9	Nó làm cái kim cong	He made the needle crooked
10	Tôi làm nồi cá cháy	I made the pot of fish burnt

1.2. Tested sentence type B: Inverted unaccusative

1	Tôi làm rách cái áo	I made torn the shirt
2	Nó làm gãy cái que	He made broke the stick
3	Tôi làm bể lọ hoa	I made broke the vase
4	Tôi làm đổ cái ghế	I madefell the chair
5	Nó làm mẻ cái bát	He made chipped the bowl
6	Tôi làm rạn cái ly	I made cracked the glass
7	Nó làm giãn cái dây	He made slackened the rope
8	Nó làm méo cái vòng	He made ill-shaped the bangle
9	Nó làm cong cái kim	He made crooked the needle
10	Tôi làm cháy nồi cá	I made burnt the pot of fish

1.3. Tested sentence type C: Inverted unergative

1	*Tôi làm chạy cậu bé	I made run the boy
2	*Tôi làm bò con bé	I made crawl the girl
3	*Tôi làm đi em bé	I made walk the baby
4	*Anh làm nhảy cô gái	He made dance the girl
5	*Chị làm hát anh ấy	She made sing him
6	*Anh làm ca chị ấy	He made sing her
7	*Tôi làm đàn bác ấy	I made play music him
8	*Tôi làm múa cô ấy	I madedance her
9	*Anh làm vẽ cậu bé	He made swim the boy
10	*Tôi làm hét bà ấy	I made scream the lady

1.4. Tested sentence type D: Non-inverted unergative

1	!Tôi làm cậu bé chạy	I made the boy run
2	!Tôi làm con bé bò	I made the girl crawl
3	!Tôi làm em bé đi	I made the baby walk
4	!Anh làm cô gái nhảy	He made the girl dance
5	!Chị làm anh ấy hát	She made him sing
6	!Anh làm chị ấy ca	He made her sing
7	!Tôi làm bác ấy đàn	I made him play music
8	!Tôi làm cô ấy múa	I made her dance
9	!Anh làm cậu bé bơi	He made the boy swim
10	!Tôi làm bà ấy hét	I made the lady scream

1.5. Tested sentence type E: làm cho non-inverted unergative

1	Tôi làm cho bé chạy	I made give the baby run
2	Tôi làm cho bé bò	I made give the baby crawl
3	Tôi làm cho bé đi	I made give the baby walk
4	Anh làm cho nó nhảy	He made give her dance
5	Chị làm cho nó hát	She made give him sing
6	Anh làm cho nó ca	He made give her sing
7	Tôi làm cho nó đàn	I made give him play music
8	Tôi làm cho nó múa	I made give her dance
9	Anh làm cho bé bơi	He made give the baby swim
10	Tôi làm cho nó hét	I made give her scream

1.6. Tested sentence type F: làm cho inverted unaccusative

1	*Tôi làm cho rách cái áo	I made give torn the shirt
2	*Nó làm cho gãy cái que	He made give broke the stick
3	*Tôi làm cho bể lọ hoa	I made give broke the vase
4	*Tôi làm cho đổ cái ghế	I made give fell the chair
5	*Nó làm cho mẻ cái bát	He made give chipped the bowl
6	*Tôi làm cho rạn cái ly	I made give cracked the glass
7	*Nó làm cho giãn cái dây	He made give slackened the rope
8	*Nó làm cho méo cái vòng	He made give ill.shaped the bangle
9	*Nó làm cho cong cái kim	He made give crooked the needle
10	*Tôi làm cho cháy nồi cá	I made give burnt the pot of fish

2. Sentence Matching Test Version 2

2.1. Tested sentence type A: Non-inverted unaccusative

1	Tôi làm quyển sách rách	I made the book torn
2	Nó làm cái gậy gãy	He made the cane broke
3	Tôi làm cái đĩa bể	I made the plate broke
4	Tôi làm cái bàn đổ	I made the table fell
5	Nó làm cái cốc mẻ	He made the tumbler chipped
6	Tôi làm cái chén rạn	I made the cup cracked
7	Nó làm cái vòng giãn	He made the hoop slackened
8	Nó làm cái nhẫn méo	He made the ring ill.shaped
9	Nó làm con dao cong	He made the knife crooked
10	Tôi làm xoong thịt cháy	I made the pan of meat burnt

2.2. Tested sentence type B: Inverted unaccusative

1	Tôi làm rách quyển sách	I made tornt he book
2	Nó làm gãy cái gậy	He made broke the cane
3	Tôi làm bể cái đĩa	I made broke the plate
4	Tôi làm đổ cái bàn	I made fell the table
5	Nó làm mẻ cái cốc	He made chipped the tumbler
6	Tôi làm rạn cái chén	I made cracked the cup
7	Nó làm giãn cái vòng	He made slackened the hoop
8	Nó làm méo cái nhẫn	He made ill.shaped the ring
9	Nó làm cong con dao	He made crooked the knife
10	Tôi làm cháy xoong thịt	I made burnt the pan of meat

2.3. Tested sentence type C: Inverted unergative

1	*Tôi làm chạy cô gái	I made run the girl
2	*Tôi làm bò cậu bé	I made crawl the boy
3	*Tôi làm đi cậu bé	I made walk the boy
4	*Anh làm nhảy chiấy	He made dance the girl
5	*Chị làm hát cô ấy	She made sing her
6	*Anh làm ca anh ấy	He made sing him
7	*Tôi làm đàn chiấy	I made play music her
8	*Tôi làm múa anh ấy	I made dance him
9	*Anh làm bơi con bé	He made swim the girl
10	*Tôi làm hét cô ấy	I made scream the woman

2.4. Tested sentence type D: Non-inverted unergative

1	!Tôi làm cô gái chạy	I made the girl run
2	!Tôi làm cậu bé bò	I made the boy crawl
3	!Tôi làm cậu bé đi	I made the boy walk
4	!Anh làm chị ấy nhảy	He made the girl dance
5	!Chị làm cô ấy hát	She made her sing
6	!Anh làm anh ấy ca	He made him sing
7	!Tôi làm chị ấy đàn	I made her play music
8	!Tôi làm anh ấy múa	I made him dance
9	!Anh làm con bé bơi	He made the girl swim
10	!Tôi làm cô ấy hét	I made the woman scream

2.5. Tested sentence type E: làm cho non-inverted unergative

1	Tôi làm cho nó chạy	I made give him run
2	Tôi làm cho nó bò	I made give him crawl
3	Tôi làm cho nó đi	I made give him walk
4	Anh làm cho nó nhảy	He made give her dance
5	Chị làm cho nó hát	She made give her sing
6	Anh làm cho nó ca	He made give him sing
7	Tôi làm cho nó đàn	I made give her play music
8	Tôi làm cho nó múa	I made give him dance
9	Anh làm cho nó bơi	He made give her swim
10	Tôi làm cho nó hét	I made give her scream

2.6. Tested sentence type F: làm cho inverted unaccusative

1	*Tôi làm cho rách quyển sách	I made give torn the book
2	*Nó làm cho gãy cái gậy	He made give broke the cane
3	*Tôi làm cho bể cái đĩa	I made give broke the plate
4	*Tôi làm cho đổ cái bàn	I made givefell the table
5	*Nó làm cho mẻ cái cốc	He made give chipped the tumbler
6	*Tôi làm cho rạn cái chén	I made give cracked the cup
7	*Nó làm cho giãn cái vòng	He made give slackened the hoop
8	*Nó làm cho méo cái nhẫn	He made give ill.shaped the ring
9	*Nó làm cho cong con dao	He made give crooked the knife
10	*Tôi làm cho cháy xoong thịt	I made give burnt the pan of meat

3. Distractors

1	*Chị* đang làm bánh cuốn	*Mẹ* đang làm bánh cuốn	Sister/Mom is making steamed rolls.
2	*Anh* đang làm thí nghiệm	*Nó* đang làm thí nghiệm	He/She is doing experiments
3	Họ *làm* lều cho dân	Họ *xây* lều cho dân	They made/built the tents for people
4	Chị làm *bánh* cho mẹ	Chị làm *cơm* cho mẹ	She made cakes/meals for mummy
5	Tôi biết làm *gỏi* cuốn	Tôi biết làm *bánh* cuốn	I know how to make spring.rolls/steamed rolls
6	Nó làm nhà cho *bố*	Nó làm nhà cho *mẹ*	he built the father/mother's house
7	*Ông* tôi làm nghề dạy học	*Bà* tôi làm nghề dạy học	My grandpa/grandma is a teacher
8	Bố *anh* làm thầy thuốc	Bố *chị* làm thầy thuốc	His/her father is a doctor
9	Cô *tôi* làm hoạ sĩ	Cô *nó* làm hoạ sĩ	My /his anty is a painter
10	Gia đình *tôi* làm ruộng	Gia đình *nó* làm ruộng	My /his family are farmers
11	Tôi muốn làm *cô* giáo	Tôi muốn làm *thầy* giáo	I want to be a female/male teacher
12	Cả nhà đều làm *bác* sĩ	Cả nhà đều làm *y* sĩ	All family are doctor/physician
13	*Chị* đã làm lễ đính hôn	*Anh* đã làm lễ đính hôn	She/he did the engagement ceremony
14	*Họ* đã làm đám hỏi	*Chị* đã làm đám hỏi	They/she did the pre.wedding ceremony.
15	Nó *đang* làm bài tập	Nó *đã* làm bài tập	He is doing/have done homework
16	Họ *đang* làm nhiệm vụ	Họ *đã* làm nhiệm vụ	They are/were on duty
17	Anh đang *làm* thủ tục	Anh đang *chờ* thủ tục	He is doing/waiting for paperwork
18	Tôi phải làm ca *đêm*	Tôi phải làm ca *sáng*	I must do the night /morning shift
19	*Nó* đã làm cha rồi	*Anh* đã làm cha rồi	He (younger brother)/ He (elder brother) is now a father
20	*Anh* đã làm giám đốc	*Chị* đã làm giám đốc	She/he is the director
21	Bố *tôi* làm ông già Noel	Bố *nó* làm ông già Noel	My/his dad is the Santa claus
22	Anh *đã* lên làm sếp	Anh *sắp* lên làm sếp	He is now/is about to be a boss
23	Họ nhận *tôi* làm con	Họ nhận *nó* làm con	They adopted me/him as their child
24	Tôi rất muốn làm *mẹ*	Tôi rất muốn làm *bố*	I wanted to be a mother/father
25	*Tôi* làm búp bê giấy	*Nó* làm búp bê giấy	I/he made dolls from papers
26	*Nó* làm con gấu bông	*Tôi* làm con gấu bông	He/I made the Teddy bear

27	Bọn *tôi* làm nhà gỗ	Bọn *họ* làm nhà gỗ	We/ they made wood houses
28	Họ lấy mía làm *đường*	Họ lấy mía làm *mật*	They make sugar/ molasses from sugarcane.
29	Tôi lấy bột *gạo* làm bánh	Tôi lấy bột *mỳ* làm bánh	I made cakes from rice/wheat powder
30	Anh làm quả bóng *vải*	Anh làm quả bóng *giấy*	He made the fabric/paper ball
31	*Anh* cho em cái áo	*Tôi* cho em cái áo	He/I gave you a shirt
32	*Mẹ* cho tôi tiền tiêu	*Bố* cho tôi tiền tiêu	Mom/Dad gave me some money
33	Anh cho *quà* các em nhỏ	Anh cho *kẹo* các em nhỏ	He gave gifts/sweets to the children
34	Chị cho *em* chiếc đồng hồ	Chị cho *tôi* chiếc đồng hồ	She gave her/me a watch
35	Khoa cho *tôi* học bổng	Khoa cho *nó* học bổng	The department gave me/her a scholarship
36	Chị cho em cái *váy*	Chị cho em cái *mũ*	She gave her a skirt/hat
37	*Tôi* đã cho chị biết chuyện	*Nó* đã cho chị biết chuyện	I/he let her know (what's happened)
38	Họ *đã* cho xây lại nhà	Họ *sẽ* cho xây lại nhà	They allowed/will allow to rebuild the house
39	Họ cho *tôi* làm quản lý	Họ cho *anh* làm quản lý	They made me/him the manager
40	Họ cho máy bay *cất* cánh	Họ cho máy bay *hạ* cánh	They let the plane take off/land
41	Tôi cho tụi nhỏ đi *học*	Tôi cho tụi nhỏ đi *ngủ*	I took the kids to school/bed
42	Họ cho tôi nghỉ phép	Họ cho tôi nghỉ việc	They allow me to take leave/ They fire me
43	*Anh* cho là tôi xinh	*Họ* cho là tôi xinh	He/they think I'm pretty
44	Chúng *tôi* cho là đúng	Chúng *ta* cho là đúng	We (addressee exclusive)/ We (addressee inclusive) think it's right.
45	Họ *vẫn* cho là phải	Họ *luôn* cho là phải	They still/always think they're right
46	Chị cho là *tôi* sai	Chị cho là *anh* sai	She think i'm/he's wrong
47	Tôi cho là *bổ* ích	Tôi cho là *có* ích	I think it's useful
48	Tôi cho là họ *sai*	Tôi cho là họ *đúng*	I think they're wrong/right
49	*Tôi* cố làm cho xong	*Nó* cố làm cho xong	I/he tried to finish off
50	*Họ* sẽ đếm cho đủ	*Tôi* sẽ đếm cho đủ	They/I will count them all.
51	Nó *ráng* học cho giỏi	Nó *cố* học cho giỏi	He tried to study hard
52	Mày phải *uống* cho hết	Mày phải *chén* cho hết	You must drink/eat it all
53	Chị muốn nấu *cá* cho ngon	Chị muốn nấu *canh* cho ngon	She wanted to cook the fish/soup beautifully
54	Tôi lau nhà cho *sạch*	Tôi lau nhà cho *mát*	I mopped the floor so clean/fresh
55	*Anh* để tôi đi cho	*Chị* để tôi đi cho	You (brother)/ You (sister) let me go
56	Xin *ông* thông cảm cho	Xin *bà* thông cảm cho	You (Mr)/ You (Mrs) please do understand.
57	Xin *chị* bỏ qua cho	Xin *anh* bỏ qua cho	You (sister)/ You (brother) please overlook it
58	Để *tôi* làm giúp cho	Để *nó* làm giúp cho	Let me/her give you a hand
59	Xin *chị* chỉ dẫn cho	Xin *anh* chỉ dẫn cho	You (sister)/ You (brother) please show me the way
60	Để nó *viết* hộ cho	Để nó *đọc* hộ cho	Let her write/read for you

4. Practice items:

1	Tiếng Việt có khó không	Tiếng Việt có khó không	Is Vietnamese difficult
2	Chị Hoa thích màu xanh	Chị Hoa thích màu xanh	Hoa likes green color
3	Ngày mai sẽ có tuyết	Ngày mai sẽ có tuyết	It will snow tomorrow
4	Tôi thích đọc truyện tranh	Tôi thích đọc truyện tranh	I like reading comics
5	Mùa *đông* gần đến rồi	Mùa *xuân* gần đến rồi	The winter/spring is coming
6	*Nó* viết sách xong rồi	*Tôi* viết sách xong rồi	He/I finished writing this book
7	Họ *đã* đi về nhà	Họ *đang* đi về nhà	They went/are going home
8	Chúng tôi đang *học* bài	Chúng tôi đang *làm* bài	We are studying/doing exercises

APPENDIX D - Acceptability Judgment Test

1. Acceptability Judgment Test Ver.1

1)	Type A	Tôi làm cái áo rách	I made the shirt torn
2)	Type A	Nó làm cái que gãy	He made the stick broke
3)	Type A	Tôi làm lọ hoa bể	I made the vase broke
4)	Type A	Tôi làm cái ghế đổ	I made the chair fell
5)	Type A	Nó làm cái bát mẻ	He made the bowl chipped
6)	Type A	Tôi làm cái ly rạn	I made the glass cracked
7)	Type A	Nó làm cái dây giãn	He made the rope slackened
8)	Type A	Nó làm cái vòng méo	He made the bangle ill-shaped
9)	Type A	Nó làm cái kim cong	He made the needle crooked
10)	Type A	Tôi làm nồi cá cháy	I made the pot of fish burnt
11)	Type B	Tôi làm rách cái áo	I made torn the shirt
12)	Type B	Nó làm gãy cái que	He made broke the stick
13)	Type B	Tôi làm bể lọ hoa	I made broke the vase
14)	Type B	Tôi làm đổ cái ghế	I made fell the chair
15)	Type B	Nó làm mẻ cái bát	He made chipped the bowl
16)	Type B	Tôi làm rạn cái ly	I made cracked the glass
17)	Type B	Nó làm giãn cái dây	He made slackened the rope
18)	Type B	Nó làm méo cái vòng	He made ill-shaped the bangle
19)	Type B	Nó làm cong cái kim	He made crooked the needle
20)	Type B	Tôi làm cháy nồi cá	I made burnt the pot of fish
21)	Type C	*Tôi làm chạy cậu bé	I made run the boy
22)	Type C	*Tôi làm bò con bé	I made crawl the girl
23)	Type C	*Tôi làm đi em bé	I made walk the baby
24)	Type C	*Anh làm nhảy cô gái	He made dance the girl
25)	Type C	*Chị làm hát anh ấy	She made sing him
26)	Type C	*Anh làm ca chị ấy	He made sing her
27)	Type C	*Tôi làm đàn bác ấy	I made play music him
28)	Type C	*Tôi làm múa cô ấy	I made dance her
29)	Type C	*Anh làm vẽ cậu bé	He made swim the boy
30)	Type C	*Tôi làm hét bà ấy	I made scream the lady
31)	Type D	!Tôi làm cậu bé chạy	I made the boy run
32)	Type D	!Tôi làm con bé bò	I made the girl crawl
33)	Type D	!Tôi làm em bé đi	I made the baby walk
34)	Type D	!Anh làm cô gái nhảy	He made the girl dance
35)	Type D	!Chị làm anh ấy hát	She made him sing

36)	Type D	!Anh làm chị ấy ca	He made her sing
37)	Type D	!Tôi làm bác ấy đàn	I made him play music
38)	Type D	!Tôi làm cô ấy múa	I made her dance
39)	Type D	!Anh làm cậu bé bơi	He made the boy swim
40)	Type D	!Tôi làm bà ấy hét	I made the lady scream
41)	Type E	Tôi làm cho nó chạy	I made give him run
42)	Type E	Tôi làm cho nó bò	I made give him crawl
43)	Type E	Tôi làm cho nó đi	I made give him walk
44)	Type E	Anh làm cho nó nhảy	He made give her dance
45)	Type E	Chị làm cho nó hát	She made give her sing
46)	Type E	Anh làm cho nó ca	He made give him sing
47)	Type E	Tôi làm cho nó đàn	I made give her play music
48)	Type E	Tôi làm cho nó múa	I made give him dance
49)	Type E	Anh làm cho nó bơi	He made give her swim
50)	Type E	Tôi làm cho nó hét	I made give her scream
51)	Type F	*Tôi làm cho rách cái áo	I made give torn the shirt
52)	Type F	*Nó làm cho gãy cái que	He made give broke the stick
53)	Type F	*Tôi làm cho bể lọ hoa	I made give broke the vase
54)	Type F	*Tôi làm cho đổ cái ghế	I made give fell the chair
55)	Type F	*Nó làm cho mẻ cái bát	He made givechipped the bowl
56)	Type F	*Tôi làm cho rạn cái ly	I made give cracked the glass
57)	Type F	*Nó làm cho giãn cái dây	He made give slackened the rope
58)	Type F	*Nó làm cho méo cái vòng	He made give ill.shaped the bangle
59)	Type F	*Nó làm cho cong cái kim	He made give crooked the needle
60)	Type F	*Tôi làm cho cháy nồi cá	I made give burntthe pot of fish
61)	Distractor	Chị đang làm bánh cuốn	Sister is making steamed rolls.
62)	Distractor	Anh đang làm thí nghiệm	Heis doing experiments
63)	Distractor	Họ làm lều cho dân	They made the tents for people
64)	Distractor	Chị làm bánh cho mẹ	She made cakes for mummy
65)	Distractor	Tôi biết làm gỏi cuốn	I know how to make spring.rolls
66)	Distractor	Nó làm nhà cho bố	he built the father's house
67)	Distractor	Ông tôi làm nghề dạy học	My grandpa is a teacher
68)	Distractor	Bố anh làm thầy thuốc	His father is a doctor
69)	Distractor	Cô tôi làm hoạ sĩ	My anty is a painter
70)	Distractor	Gia đình tôi làm ruộng	My family are farmers
71)	Distractor	Tôi muốn làm cô giáo	I want to be a female teacher
72)	Distractor	Cả nhà đều làm bác sĩ	All family are doctor
73)	Distractor	Chị đã làm lễ đính hôn	She did the engagement ceremony
74)	Distractor	Họ đã làm đám hỏi	Theydid the pre.wedding ceremony.
75)	Distractor	Nó đang làm bài tập	He is doing homework
76)	Distractor	Họ đang làm nhiệm vụ	They are on duty
77)	Distractor	Anh đang làm thủ tục	He is doingfor paperwork
78)	Distractor	Tôi phải làm ca đêm	I do the night shift

79)	Distractor	Nó đã làm cha rồi	he is now a father
80)	Distractor	Anh đã làm giám đốc	She is the director
81)	Distractor	Bố tôi làm ông già Noel	My dad is the Santa claus
82)	Distractor	Anh đã lên làm sếp	He is now be a boss
83)	Distractor	Họ nhận tôi làm con	They adopted me as their child
84)	Distractor	Tôi rất muốn làm mẹ	I wanted to be a mother
85)	Distractor	Tôi làm búp bê giấy	Imade dolls from papers
86)	Distractor	Nó làm con gấu bông	He made the Teddy bear
87)	Distractor	Bọn tôi làm nhà gỗ	We made wood houses
88)	Distractor	Họ lấy mía làm đường	They make sugar from sugarcane.
89)	Distractor	Tôi lấy bột gạo làm bánh	I made cakes from ricepowder
90)	Distractor	Anh làm quả bóng vải	He made the fabric ball
91)	Distractor	Anh cho em cái áo	He gave you a shirt
92)	Distractor	Mẹ cho tôi tiền tiêu	Mom gave me some money
93)	Distractor	Anh cho quà các em nhỏ	He gave gifts to the children
94)	Distractor	Chị cho em chiếc đồng hồ	She gave her a watch
95)	Distractor	Khoa cho tôi học bổng	The department gave me a scholarship
96)	Distractor	Chị cho em cái váy	She gave her a skirt
97)	Distractor	Tôi đã cho chị biết chuyện	I let her know (what's happened)
98)	Distractor	Họ đã cho xây lại nhà	They allowed to rebuild the house
99)	Distractor	Họ cho tôi làm quản lý	They made methe manager
100)	Distractor	Họ cho máy bay cất cánh	They let the plane take off
101)	Distractor	Tôi cho tụi nhỏ đi học	I took the kids to school
102)	Distractor	Họ cho tôi nghỉphép	They allow me to take leave
103)	Distractor	Anh cho là tôi xinh	He think I'm pretty
104)	Distractor	Chúng tôi cho là đúng	We think it's right.
105)	Distractor	Họ vẫn cho là phải	They still think they're right
106)	Distractor	Chị cho là tôi sai	She think he's wrong
107)	Distractor	Tôi cho là bổ ích	I think it's useful
108)	Distractor	Tôi cho là họsai	I think they're wrong
109)	Distractor	Tôi cố làm cho xong	Itried to finish off
110)	Distractor	Họ sẽđếm cho đủ	They will count them all.
111)	Distractor	Nó ráng học cho giỏi	He tried to study hard
112)	Distractor	Mày phải uống cho hết	You must drinkit all
113)	Distractor	Chị muốn nấu cá cho ngon	She wanted to cook the fish beautifully
114)	Distractor	Tôi lau nhà cho sạch	I mopped the floor so clean
115)	Distractor	Anh để tôi đi cho	Let me go
116)	Distractor	Xin ông thông cảm cho	Please do understand.
117)	Distractor	Xin chị bỏ qua cho	Please overlook it
118)	Distractor	Để tôi làm giúp cho	Let megive you a hand
119)	Distractor	Xin chị chỉ dẫn cho	Please show me the way
120)	Distractor	Để nó viết hộ cho	Let her writefor you

2. Acceptability Judgment Test Ver.2

1)	Type A	Tôi làm quyển sách rách	I made the book torn
2)	Type A	Nó làm cái gậy gãy	He made the cane broke
3)	Type A	Tôi làm cái đĩa bể	I made the plate broke
4)	Type A	Tôi làm cái bàn đổ	I made the table fell
5)	Type A	Nó làm cái cốc mẻ	He made the tumbler chipped
6)	Type A	Tôi làm cái chén rạn	I made the cup cracked
7)	Type A	Nó làm cái vòng giãn	He made the hoop slackened
8)	Type A	Nó làm cái nhẫn méo	He made the ring ill.shaped
9)	Type A	Nó làm con dao cong	He made the knife crooked
10)	Type A	Tôi làm xoong thịt cháy	I made the pan of meat burnt
11)	Type B	Tôi làm rách quyển sách	I made torn the book
12)	Type B	Nó làm gãy cái gậy	He made brok ethe cane
13)	Type B	Tôi làm bể cái đĩa	I made broke the plate
14)	Type B	Tôi làm đổ cái bàn	I madefell the table
15)	Type B	Nó làm mẻ cái cốc	He made chipped the tumbler
16)	Type B	Tôi làm rạn cái chén	I made cracked the cup
17)	Type B	Nó làm giãn cái vòng	He made slackened the hoop
18)	Type B	Nó làm méo cái nhẫn	He made ill.shaped the ring
19)	Type B	Nó làm cong con dao	He made crooked the knife
20)	Type B	Tôi làm cháy xoong thịt	I made burnt the pan of meat
21)	Type C	*Tôi làm chạy cô gái	I made run the girl
22)	Type C	*Tôi làm bò cậu bé	I made crawl the boy
23)	Type C	*Tôi làm đi cậu bé	I made walk the boy
24)	Type C	*Anh làm nhảy chịấy	He made dance the girl
25)	Type C	*Chị làm hát cô ấy	She made sing her
26)	Type C	*Anh làm ca anh ấy	He made sing him
27)	Type C	*Tôi làm đàn chịấy	I made play music her
28)	Type C	*Tôi làm múa anh ấy	I made dance him
29)	Type C	*Anh làm bơi con bé	He made swim the girl
30)	Type C	*Tôi làm hét cô ấy	I made scream the woman
31)	Type D	!Tôi làm cô gái chạy	I made the girl run
32)	Type D	!Tôi làm cậu bé bò	I made the boy crawl
33)	Type D	!Tôi làm cậu bé đi	I made the boy walk
34)	Type D	!Anh làm chị ấy nhảy	He made the girl dance
35)	Type D	!Chị làm cô ấy hát	She made her sing
36)	Type D	!Anh làm anh ấy ca	He made him sing
37)	Type D	!Tôi làm chị ấy đàn	I made her play music
38)	Type D	!Tôi làm anh ấy múa	I made him dance
39)	Type D	!Anh làm con bé bơi	He made the girl swim
40)	Type D	!Tôi làm cô ấy hét	I made the woman scream

41)	Type E	Tôi làm cho nó chạy	I made give him run
42)	Type E	Tôi làm cho nó bò	I made give him crawl
43)	Type E	Tôi làm cho nó đi	I made give him walk
44)	Type E	Anh làm cho nó nhảy	He made give her dance
45)	Type E	Chị làm cho nó hát	She made give her sing
46)	Type E	Anh làm cho nó ca	He made give him sing
47)	Type E	Tôi làm cho nó đàn	I made give her play music
48)	Type E	Tôi làm cho nó múa	I made give him dance
49)	Type E	Anh làm cho nó bơi	He made give her swim
50)	Type E	Tôi làm cho nó hét	I made give her scream
51)	Type F	*Tôi làm cho rách quyển sách	I made give torn the book
52)	Type F	*Nó làm cho gãy cái gậy	He made give broke the cane
53)	Type F	*Tôi làm cho bể cái đĩa	I made give broke the plate
54)	Type F	*Tôi làm cho đổ cái bàn	I made give fell the table
55)	Type F	*Nó làm cho mẻ cái cốc	He made give chipped the tumbler
56)	Type F	*Tôi làm cho rạn cái chén	I made give cracked the cup
57)	Type F	*Nó làm cho giãn cái vòng	He made give slackened the hoop
58)	Type F	*Nó làm cho méo cái nhẫn	He made give ill.shaped the ring
59)	Type F	*Nó làm cho cong con dao	He made give crooked the knife
60)	Type F	*Tôi làm cho cháy xoong thịt	I made give burnt the pan of meat
61)	Distractor	Chị đang làm bánh cuốn	Sister is making steamed rolls.
62)	Distractor	Anh đang làm thí nghiệm	Heis doing experiments
63)	Distractor	Họ làm lều cho dân	They made the tents for people
64)	Distractor	Chị làm bánh cho mẹ	She made cakes for mummy
65)	Distractor	Tôi biết làm gỏi cuốn	I know how to make spring.rolls
66)	Distractor	Nó làm nhà cho bố	He built the father's house
67)	Distractor	Ông tôi làm nghề dạy học	My grandpa is a teacher
68)	Distractor	Bố anh làm thầy thuốc	His father is a doctor
69)	Distractor	Cô tôi làm hoạ sĩ	My anty is a painter
70)	Distractor	Gia đình tôi làm ruộng	My family are farmers
71)	Distractor	Tôi muốn làm cô giáo	I want to be a female teacher
72)	Distractor	Cả nhà đều làm bác sĩ	The whole family are doctor
73)	Distractor	Chị đã làm lễ đính hôn	She did the engagement ceremony
74)	Distractor	Họ đã làm đám hỏi	They did the pre.wedding ceremony.
75)	Distractor	Nó đang làm bài tập	He is doing homework
76)	Distractor	Họ đang làm nhiệm vụ	They are on duty
77)	Distractor	Anh đang làm thủ tục	He is doing the paperwork
78)	Distractor	Tôi phải làm ca đêm	I do the night shift
79)	Distractor	Nó đã làm cha rồi	He is now a father
80)	Distractor	Anhđã làm giám đốc	She is the director
81)	Distractor	Bốtôi làm ông già Noel	My dad is the Santa claus

82)	Distractor	Anh đã lên làm sếp	He is now be a boss
83)	Distractor	Họ nhận tôi làm con	They adopted me as their child
84)	Distractor	Tôi rất muốn làm mẹ	I wanted to be a mother
85)	Distractor	Tôi làm búp bê giấy	I made dolls from papers
86)	Distractor	Nó làm con gấu bông	He made the Teddy bear
87)	Distractor	Bọn tôi làm nhà gỗ	We made wood houses
88)	Distractor	Họ lấy mía làm đường	They make sugar from sugarcane.
89)	Distractor	Tôi lấy bột gạo làm bánh	I made cakes from rice powder
90)	Distractor	Anh làm quả bóng vải	He made the fabric ball
91)	Distractor	Anh cho em cái áo	He gave you a shirt
92)	Distractor	Mẹ cho tôi tiền tiêu	Mom gave me some money
93)	Distractor	Anh cho quà các em nhỏ	He gave gifts to the children
94)	Distractor	Chị cho em chiếc đồng hồ	She gave her a watch
95)	Distractor	Khoa cho tôi học bổng	The department gave me a scholarship
96)	Distractor	Chị cho em cái váy	She gave her a skirt
97)	Distractor	Tôi đã cho chị biết chuyện	I let her know (what's happened)
98)	Distractor	Họ đã cho xây lại nhà	They allowed to rebuild the house
99)	Distractor	Họ cho tôi làm quản lý	They made me the manager
100)	Distractor	Họ cho máy bay cất cánh	They let the plane take off
101)	Distractor	Tôi cho tụi nhỏ đi học	I took the kids to school
102)	Distractor	Họ cho tôi nghỉ phép	They allow me to take leave
103)	Distractor	Anh cho là tôi xinh	He think I'm pretty
104)	Distractor	Chúng tôi cho là đúng	We think it's right.
105)	Distractor	Họ vẫn cho là phải	They still think they're right
106)	Distractor	Chị cho là tôi sai	She think he's wrong
107)	Distractor	Tôi cho là bổ ích	I think it's useful
108)	Distractor	Tôi cho là họ sai	I think they're wrong
109)	Distractor	Tôi cố làm cho xong	Itried to finish off
110)	Distractor	Họ sẽ đếm cho đủ	They will count them all.
111)	Distractor	Nó ráng học cho giỏi	He tried to study hard
112)	Distractor	Mày phải uống cho hết	You must drink it all
113)	Distractor	Chị muốn nấu cá cho ngon	She wanted to cook the fish beautifully
114)	Distractor	Tôi lau nhà cho sạch	I mopped the floor so clean
115)	Distractor	Anh để tôi đi cho	Let me go
116)	Distractor	Xin ông thông cảm cho	Please do understand.
117)	Distractor	Xin chị bỏ qua cho	Please forgive it
118)	Distractor	Để tôi làm giúp cho	Let megive you a hand
119)	Distractor	Xin chị chỉ dẫn cho	Please show me the way
120)	Distractor	Để nó viết hộ cho	Let her write for you

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