# Tagalog infinitives: Consequences for the theory of phases, voice marking and extraction

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#### 1. INTRODUCTION

## 1.1 The paper in a broader context

This paper is a study of infinitival constructions in Tagalog. I show that by understanding the distribution and properties of Tagalog infinitives interesting consequences arise for several typological and current theoretical issues.

One of the main empirical observations discussed in the literature on Tagalog infinitives is that two basic word orders are possible (Tagalog is a verb/predicate initial language, where the unmarked order is V»SUBJECT): the overt subject of the infinitival construction can either precede the embedded infinitive (V2) or follow it. This word order variation together with certain cross-clausal dependencies has lead to analyses in which some mechanisms of restructuring or clause union is proposed to derive the different configurations and properties. For instance, Kroeger (1993) suggests that the configuration in (1a) involves a bi-clausal structure, whereas the one in (1b) involves a mono-clausal configuration and a process of argument structure fusion. Similarly, Mercado (2003) assumes that (1b) is a derived restructuring construction in which the embedded verb V2 has undergone incorporation into the matrix clause to again create a mono-clausal configuration.

While, as I will point out, such approaches have certain advantages, they also raise a question regarding the typology of restructuring. Cross-linguistically, restructuring configurations are characterized by certain deficiencies in the infinitival complement (e.g., a tense-deficiency, a voice deficiency, possibly others), which could be taken to indicate that these infinitives involve truncated structures where certain functional projections (e.g., TP, vP) are missing. A core property of restructuring cross-linguistically, which I will show is also found in several Austronesian languages, is that restructuring configurations involve a tight dependency between the matrix and embedded voice properties. Tagalog infinitives, however, show none of the typical restructuring effects—there is no evidence of a truncated structure and there are no voice dependencies. Thus, if Tagalog infinitives are seen as restructuring constructions, they would involve a very different type of restructuring. I show in this article that the postulation of restructuring is not only doubtful in the bigger context of restructuring, but also problematic within the analyses previously proposed.

Instead the basic approach I put forward in this article is to see the variation in (1) as the result of two different positions of the subject connected via movement. Thus, I propose, as shown abstractly in (2), a *backward/forward raising* (BR/FR) and *backward/forward control via raising* (BCR/FCR) analysis in the spirit of Hornstein (1999, et seq.) and Polinsky and Potsdam (2002, 2006, 2012). In such analysis, the subject undergoes movement from the embedded clause to the matrix clause, but both positions (both copies) of the subject are visible and useable at PF.

(2) a. 
$$[TP]$$
 V1-matrix {SUBJECT}  $[CP/TP2]$  V2-infinitive {SUBJECT}...]  $[CP/TP2]$  F(C)R b.  $[TP1]$  V1-matrix {SUBJECT}  $[CP/TP2]$  V2-infinitive {SUBJECT}...]  $[CP/TP2]$  B(C)R

A question that has not yet received an answer in the works on B(C)R is what determines whether a language allows BR (like Adyghe) or can only involve FR (like English). Adding Tagalog to the B(C)R languages allows us to approach this question. For Adyghe, Polinksy and Potsdam proposed that the choice of high vs. low copy in raising constructions can yield two morphologically distinct PF-realizations, specifically different case markers (absolutive vs. ergative) on the subject. I show that, like what has been proposed for Adyghe, in Tagalog, too, the choice of copy can yield two morphologically different PF-realizations depending on the surrounding context and properties. In addition to Adyghe, Standard Arabic has also been argued to allow BR (Haddad 2012, Haddad and Wurmbrand 2013), and as in Adyghe and Tagalog, the choice of copy has a morphological effect (in this language on the form of agreement on the verb). The hypothesis that emerges from this (admittedly very limited) set of languages is the following: as proposed in most theories involving copy choice (see, for instance, Bošković and Nunes 2007 for an overview) the default choice at PF is to pronounce the higher copy, but in languages where the choice of copy has a morphological effect, the lower copy may also be pronounced. In this paper, I will not develop this hypothesis further, but show how Tagalog contributes to this potentially fruitful line of research of B(C)R languages, and most importantly do the groundwork, which is to show that a B(C)R analysis is motivated for Tagalog.

Apart from the typological implications for backward raising and restructuring, the account I develop in this article has several theoretical consequences. Since movement (in some cases Amovement) from an embedded clause is the main ingredient of the analysis, various questions arise regarding locality, domain/phase-hood, and general conditions on extraction in Tagalog and beyond. One of the theoretical concepts I adopt in this paper is the notion of phase extension triggered by (a certain type of) head movement (see for instance den Dikken 2007, Gallego 2005, 2010, Gallego and Uriagereka 2006, Alexiadou et al. [AAW] To appear for some version of this concept). Following these works, I assume that verb movement in Tagalog, which is a V-initial language, has the effect of extending the  $\nu$ P phase to TP. Several consequences arise from this assumption, for instance, all movement has to pass through Spec,TP rather than Spec, $\nu$ P to move out of the embedded TP-phase. This obligatory movement step, I argue, is the crucial factor for triggering certain extraction restrictions, specifically the restriction that only arguments that are in a particular agreement relation with the verb may undergo movement.

A core feature of a B(C)R analysis is that in contrast to languages that only allow F(C)R more options are available at PF in B(C)R languages. This has direct and indirect consequences for determining the success or failure of a derivation if an approach is adopted according to which locality (and possibly other syntactic) violations are evaluated at PF (see Bošković 2011 for a recent proposal). The main idea of such approaches is that syntactic violations are registered in the course of the derivation by marking specific syntactic objects as illicit PF objects (the convention used is to mark such objects with a star). The actual evaluation of whether a derivation passes or fails is thus postponed to PF in that only PF outputs that end up without any illicit PF objects are successful. This has the effect that PF-deletion operations such as ellipsis, but also copy deletion, can 'rescue' certain syntactic violations. If a PF illicit (i.e., a star-marked) element is deleted at PF, the offending PF object is removed and, assuming the structure contains no other illicit PF objects, the derivation succeeds. I show in this article that such a system, in particular an approach as developed in Bošković (2011) where two types of illicit PF objects (illicit A vs. A'-objects, notated as XP\*A and A'-stars, XP\*A') are distinguished has the restrictiveness

and flexibility to cover the intricate distribution of extraction patterns found in Tagalog infinitives. Various puzzling asymmetries are found regarding movement from raising and control infinitives. For instance, as noted in Kroeger (1993), the distribution of clitics is different in backward control vs. backward raising infinitives. Furthermore, in many contexts, extraction of full NPs behaves differently from extraction of clitics. I show that these (and other) asymmetries follow naturally from a PF evaluation approach together with Sportiche's (1996) approach to clitics according to which clitic constructions involve two parts—a base-generated clitic head and a *pro* argument associated with the clitic via movement. A crucial role of the account is the A/A'-distinction of different syntactic dependencies, and I provide an explicit feature system and algorithm for determining A vs. A'-properties which, in addition to covering extraction in Tagalog, also allows us to implement movement restrictions such as *improper movement*, competition among different elements at the phase edge, and various intervention effects.

The article is organized as follows. In the remaining part of the introduction, I provide a glimpse into some Tagalog specific properties, which will be crucial for understanding the issues arising for a movement account such as the one I am putting forward here. In section 2, I summarize the main distribution of infinitives in Tagalog and discuss previous accounts and challenges for those accounts. In section 3, I present a short version of my proposal and questions arising for that proposal. In section 4, I lay out my account of voice marking and certain extraction restrictions in Tagalog. And finally, in section 5, I turn to a detailed account of infinitives in Tagalog using the system developed in sections 3 and 4. Section 6 summarizes the main theoretical claims and provides an outlook for the typology of forward vs. backward movement.

# 1.2 Quick facts about Tagalog and notation used

Tagalog is a V-initial language with a rich verbal agreement system, which I will refer to in this article as *voice marking*. Following several works (see Kroeger 1993, Rackowski 2002, Rackowski and Richards [R&R] 2005, Paul and Travis 2006, Schachter 1996, among others), I assume a nominative-accusative system for Tagalog, however, certain assumptions I make about Case and agreement licensing pattern with similar claims made in Aldridge (2004, 2006, 2007) who proposes an ergative analysis for Tagalog. The description in this section and notation used in this paper therefore follows the conventions used in non-ergative accounts.

In Tagalog, like other Austronesian languages, the verb agrees with one of its arguments, and this agreement is indicated by a particular affix on the verb, as well as a special form on the privileged argument, which, following Pearson (2005), I will also refer to as the *trigger* argument. In (3a), for instance, the privileged argument is the agent argument, and this special relation is indicated in two ways: the infix *-um-* on the verb, and the nominal marker *ang* (or *si* in case of proper names) on the trigger argument (non-trigger arguments appear with *ng* and *ni*). The terminology used in the literature regarding this phenomenon is diverse, and so are the functions associated with this marking (the trigger has been considered a topic, subject, pivot, focus etc.). The notation I use in this article is given in (4). As shown, to indicate agreement with the agent, theme, directional/locative, and benefactive arguments, I use the common case notation—NOM, ACC, DAT, OBL respectively—on the verb, and following Pearson (2005), I use the abbreviation PTT (*promotion to trigger*) to specify the nominal marker of the trigger argument. Through-

<sup>&</sup>lt;sup>1</sup> In (3), I indicate infixation by repeating the stem before and after the infix; for the rest of the article, I do not give detailed morphological segmentations, except where it is relevant.

out the article, I underline the verbs, set the underlying (deep) subjects in bold and box other relevant elements (for instance, in (3), the PTT arguments are boxed).

- (3) a. <u>B-um-ili</u> **ang bata** ng tela sa palengke para sa nanay buy-NOM.ASP-buy PTT child DET cloth DAT market for DAT Mother 'The child bought cloth at the market for Mother.' [R&R 2005:566, (1)]
  - b. <u>B-in-ili-Ø</u> **ng bata** ang tela sa palengke para sa nanay buy-ASP-buy-ACC DET child PTT cloth DAT market for DAT Mother 'The child bought the cloth at the market for Mother.'
  - c. <u>B-in-ilh-an</u> **ng bata** ng tela <u>ang palengke</u> para sa nanay buy-ASP-buy-DAT DET child DET cloth PTT market for DAT Mother 'The child bought (the) cloth at the market for Mother.'
  - d. <u>I-b-in-ili</u> **ng bata** ng tela sa palengke ang nanay OBL-buy-ASP-buy DET child DET cloth DAT market PTT Mother 'The child bought (the) cloth at the market for Mother.'
- (4) a. PTT (promotion to trigger; Pearson 2005) PTT argument, PTT marking etc.
  - b. On Verbs (Rackowski 2002, Mercado 2003, R&R 2005):

NOM (actor voice) PTT argument = agent/subject
ACC (object(ive) voice) PTT argument = theme/direct object
DAT (dative/locative voice) PTT argument = indirect obj, locative, embedded clause

OBL (benefactive voice) PTT argument = benefactive, oblique

c. With NPs:

PTT determiner/marker used for PTT argument
NON-PTT marker/determiner

Many current accounts of voice marking assume that PTT marking involves an Agree relation between the trigger argument and a head in the extended vP/TP domain. In Aldridge's (2004, 2006, 2007) ergative analysis, for instance, the PTT argument (the absolutive in her case) agrees with T when the subject is the PTT argument, and with v when the object is the PTT argument (the former is an intransitive anti-passive construction in her system, whereas the latter involves a transitive configuration, and this difference results in different morphology on the verb). Rackowski (2002) and R&R (2005) follow a non-ergative approach and assume that voice marking in (3) is the result of two properties: i) the PTT argument undergoes semantically driven movement from within the VP to the highest position in the vP (this movement operation is similar to object shift in Germanic); ii) T Agrees with the closest argument (now the PTT argument), and the result of this Agree relation is the voice marking on the verb and PTT argument. In this paper, I will also pursue an Agree approach, however, in contrast to the above works, I propose that voice marking is always the result of an Agree relation between the PTT argument and the v head.

In addition to the morphological marking on the verb and the trigger argument, PTT arguments show other 'special' behavior in syntax and semantics. One property essential for this article is the relation between PTT-hood and extraction. In Tagalog, (argument) questions occur in the form of pseudo-clefts where the questioned item is predicated of a headless relative clause, which itself functions as the PTT argument of the cleft (see Kroeger 1993, Richards 1996, among many others). As illustrated in (5), only PTT arguments can undergo extraction (the PTT marker related to the question pseudo-cleft is glossed as ANG to keep the two PTT functions separate). In

(5a), the dative argument is the PTT argument, and extraction of the dative is possible. If the verb shows oblique or nominative marking, on the other hand, extraction of the dative is impossible (only the theme could be extracted in (5b), and the agent in (5c)).

| (5) | a. | Sino<br>who<br>'Who | ang<br>ANG<br>did the | <u>b-in-igy-an</u><br>give-ASP-give-DAT<br>man give the flower to | ng lalaki<br>DET man<br>o?'  | ng bulaklak?<br>DET flower        | [R&R 2005:566] |
|-----|----|---------------------|-----------------------|---|------------------------------|-----------------------------------|----------------|
|     | b. | *Sino<br>who        | ang<br>ANG            | <u>i-b-in-igay</u><br>OBL-give-ASP-give                           | <i>ng lalaki</i><br>DET man  | ang bulaklak?<br>ang flower       |                |
|     | c. | *Sino<br>who        | ang<br>ANG            | <u>n-agbigay</u><br>NOM.ASP-give                                  | <i>ang lalaki</i><br>PTT man | <i>ng bulaklak?</i><br>DET flower |                |

In this paper, I will propose a new approach to the PTT extraction restriction that covers extraction in simple clauses as well as movement from control and raising infinitives, which so far have not received a unified account.

### 2. TAGALOG INFINITVES

### 2.1 Word order in Tagalog infinitives—Synopsis of the proposal

Tagalog infinitival constructions allow two basic orderings of the thematic subject and the embedded verb (V2).<sup>2</sup> The subject can either precede V2 as in the a. examples in (6), (7) or follow V2 as in the b. examples.<sup>3</sup> Since in the SUBJECT»V2 order the subject also precedes a complementizer (if present) and movement to preverbal clause-initial (Spec,CP) position is typically not an option in Tagalog (see Dell 1981 who notes that the complementizer "is always the leftmost term of the constituent it introduces"), we can conclude that the subject appears in the matrix clause in this order. Conversely, the ordering V2»SUBJECT where material from the embedded clause follows the subject indicates that the subject is in the embedded clause (unless V+C have moved out of the embedded clause, as proposed in Mercado 2003, an analysis I will reject here).

(6) a. <u>Kaya</u> **ni Manuel** na <u>bumili</u> ng bagong kotse able DET Manuel C/L NOM.buy DET new car 'Manuel is able to buy a new car.' [Kroeger 1993: 182, (29a)]

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<sup>&</sup>lt;sup>2</sup> The voice marking on the verb and PTT movement have also been analyzed as promotion to subject, either in terms of grammatical functions or movement to Spec,IP/TP (see, among others, Schachter 1976, 1996, Guilfoyle et al. 1992, Kroeger 1993). I do not follow these approaches in this article (see Aldridge 2004, 2006, 2007, Pearson 2005, and others, for evidence from binding, control, and other phenomena which strongly argue against a subject promotion account). Instead I assume that the grammatical functions of a verb are not affected by PTT marking, only the syntactic hierarchy is. I therefore use the term 'subject' exclusively to refer to external arguments and not the PTT argument (unless the agent is the PTT argument).

<sup>&</sup>lt;sup>3</sup> Like for many other languages, there is an uncertainty regarding the syntactic status of certain elements in infinitives (whether they are C-, T-, Asp, or other heads). In Tagalog, *na* (or *ng* depending on the phonology of the preceding word) are given as complementizers, linker elements, or ligatures. I will gloss it here as C/L to remain uncommitted as to its specific function. As far as is known at this point, this head is fully optional in infinitives, can always be dropped, and shows no domain effects otherwise associated with complementizers. I also simplify the glosses by omitting specifying certain linker elements which do not bear on the discussion in this paper (e.g., *bagong* in (6) is morphologically complex; *bago+ng*, where *ng* is a linker element).

- b. <u>Kaya</u> ng <u>bumili</u> **si Manuel** ng bagong kotse able C/L NOM.buy PTT Manuel DET new car 'Manuel is able to buy a new car.' [Kroeger 1993: 182, (29b)]
- (7) a. <u>Gusto</u> **ng Nanay** (na) <u>pumunta</u> sa tindahan
  want DET Mother (C/L) NOM.go OBL.DET store
  'Mother wants to go to the store.' [Schachter and Otanes 1972: 270]
  - b. <u>Gusto</u> ng <u>pumunta</u> sa tindahan **ang Nanay**want C/L NOM.go OBL.DET store PTT Mother
    'Mother wants to go to the store.' [Schachter and Otanes 1972: 270]

The examples in (6) to (7) are cases of control in the sense that the matrix verb assigns a thetarole to the subject. The same word order alternation is also found in raising constructions—i.e., constructions in which the matrix verb does not assign a theta-role to the subject. Following Kroeger (1993), the modals *dapat* 'should', *puwede* and *maaari* both 'possible' are such verbs: they can combine with a finite sentential complement as in (8a) (cf. the future marker on the embedded verb) not involving any raising from the embedded clause. Further evidence for the non-thematic raising status of these modals will be provided in the course of this article. When combined with infinitives, at least in certain configurations, the subject can again precede, (8b), or follow the embedded verb, (8c). The same is the case in raising constructions with the verb *appear* in (9).<sup>4</sup>

- (8) a. <u>Dapat</u> na <u>babasahin</u> **ni Pedro** iyong liham should C/L FUT.read.ACC DET Pedro that.PTT letter 'Pedro should read that letter.' [Kroeger 1993: 169, (2a)]
  - b. <u>Dapat</u> **ang lahat ng mga magula** ng <u>pumalo</u> ng masamang bata ought PTT all LNK PL parent C/L spank.NOM DET bad child 'All parents ought to spank naughty children.' [Miller 1988: 29, (17b)]
  - c. <u>Dapat</u> na <u>pumalo</u> ng masamang bata ang lahat ng mga magulang ought C/L spank.NOM DET bad child PTT all LNK PL parent 'All parents ought to spank naughty children.' [Miller 1988: 29, (17a)]
- (9) a. Nagmumukha ang bata ng kumain ng mangga appear.NOM PTT child C/L eat.NOM DET mango (Nakamura 2000: 392, (2b))
  - b. Nagmumukha ng kumain ang bata ng mangga appear.NOM C/L eat.NOM PTT child DET mango (Nakamura 2000: 392, (2a))

The control constructions above show that the form of the subject can differ depending on the position. For instance, in (6), the SUBJECT»V2 order occurs with NON-PTT marking on the subject,

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<sup>&</sup>lt;sup>4</sup> Nakamura (2000) gives the verb *kumain* as finite, but Mercado explicitly states that *kumain* is non-finite (Mercado 2003: 2). Kroeger (1993), too, considers only verbs that are marked with aspect markers as finite. In the course of this article we will also see that finite complements (as defined by Mercado and Kroeger) do not allow the same range of phenomena as infinitival complements, motivating the finite/non-finite distinction as proposed by these approaches.

whereas the V2»SUBJECT order occurs with PTT marking on the subject. This difference is, of course, expected if the subject is base-generated in two different clauses in the two orders (as proposed by Kroeger 1993). As a consequence, the subject would be associated with two different vPs, and depending on the voice marking of these vPs, different forms of the subject are chosen—NON-PTT in the matrix position, and PTT in the embedded position. Under such a view, something needs to be said about the control relation we find in both cases. If the subject is basegenerated in the matrix clause in (6a), one could assume a pro/PRO subject in the embedded clauses. However, base-generation of the subject in the embedded clause in (6b) raises the question of how the control relation is established. The direction I will pursue in this article is that control constructions in the V2»SUBJECT order (as well as certain SUBJECT»V2 orders) involve control via raising as illustrated in (10) (see Hornstein 1999 et seq., Polinsky and Potsdam [P&P] 2002, 2006, 2012, Alexiadou et al. 2010, 2012). In such cases, the subject is basegenerated in the embedded clause and undergoes movement to the matrix clause where the subject relation with the matrix predicate is established (the overt NP ni/si Manuel functions as the subject of both predicates, or, in traditional terms it receives the external theta-role of the matrix and embedded predicates). At PF, two options are available—the subject could be pronounced in the higher position, yielding forward control via raising (FCR), or it could be pronounced in the lower position, yielding backward control via raising (BCR).

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(10) a.
                  ni Manuel
                                                                   ng bagong kotse ]
          Kaya
                                            bumili
                                                       <del>si Manuel</del>
                                                                                        FCR
                                 INF na
                  DET Manuel
                                                      PTT Manuel DET new car
          able
                                 INF C/L NOM.buy
          'Manuel is able to buy a new car.'
                                                                   [Kroeger 1993: 182, (29a)]
                                                                   ng bagong kotse ]
     b.
          Kaya
                  ni Manuel
                                            bumili
                                                       si Manuel
                                                                                       BCR
                                  l_{\rm INF} ng
                                 [INF C/L NOM.buy PTT Manuel DET new car
                  DET Manuel
          able
          'Manuel is able to buy a new car.'
                                                                  [Kroeger 1993: 182, (29b)]
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This approach is modeled after the backward raising analysis proposed in P&P (2006, 2012) for Adyghe, where it is also proposed that different morphological forms can arise depending on which copy of the subject is chosen. As shown in (11), matrix verbs in raising constructions involve agreement with an embedded subject which, on the surface, is realized with either absolutive or ergative case. This agreement pattern, as well as numerous other properties of these constructions, follow if the embedded subject undergoes movement to the matrix clause and at PF, either copy can be pronounced—the matrix copy occurs with absolutive, whereas the embedded copy occurs with ergative.

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[ axe-me
(11) a.
                                pjəsme-r a-txə-new
                                                                 ø-fiež 'aве-х
          they-ABS [ they-ERG letter-ABS 3PL.ERG-write-INF ]
                                                                 3ABS-began-3PL.ABS
                                                                  [P&P 2012: 78; simplified]
          'They began to write a letter.'
                                                                 ø-fjež 'aве-х
     b.
                    axe-me
                                pjəsme-r a-txə-new
          axe-r
          they-ABS [ they-ERG letter-ABS 3PL.ERG-write-INF ]
                                                                 3ABS-began-3PL.ABS
                                                                  [P&P 2012: 78; simplified]
          'They began to write a letter.'
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In this paper, I will pursue a movement analysis for Tagalog raising and certain control constructions and will show that such an analysis has several advantages over previous restructuring analyses (Kroeger 1993, Mercado 2003) as well as an empty operator movement analysis (Nakamura 2000). To do so, the extraction properties and locality conditions on movement will be investigated in detail, and I will develop a new approach to the extraction restrictions found in

Tagalog, which builds on the notion of phase extension and an approach where (certain) syntactic violations are evaluated at PF. For the analysis it will be important to keep in mind the basic terminology I am using for the different constructions. As summarized in (12), in addition to the fairly standard BR and FR, I use F/BCR (*forward/backward control via raising*) to reserve the term *forward control* (FC) for control in the traditional sense.

| (12) a. | [ | {SUBJECT}     | V1-raising | $[_{\mathrm{XP}}$                | { <del>SUBJECT</del> } | V2-INF/SUBJ | ]] | FR  |
|---------|---|---------------|------------|----------------------------------|------------------------|-------------|----|-----|
| b.      | Ī | {SUBJECT}     | V1-raising | $\bar{\mathbf{I}}_{\mathrm{XP}}$ | {SUBJECT}              | V2-INF/SUBJ | ]] | BR  |
| c.      | Ī | {SUBJECT}     | V1-control | $\bar{[}_{	ext{XP}}$             | {SUBJECT}              | V2-INF/SUBJ | ]] | FCR |
| d.      | [ | $\{SUBJECT\}$ | V1-control | $[_{\mathrm{XP}}$                | {SUBJECT}              | V2-INF/SUBJ | ]] | BCR |
| e.      | Ī | {SUBJECT}     | V1-control | $\lceil_{\text{XP}}$             | {PRO/pro}              | V2-INF/SUBJ | 11 | FC  |

Before turning to the details of my proposal, I discuss previous approaches to the word order alternations in (6) through (9) and Tagalog infinitives in general.

### 2.2 Previous accounts and challenges

Two important works on Tagalog infinitives are the restructuring approaches developed in Kroeger (1993) and Mercado (2003). According to Kroeger, the SUBJECT»V2 and V2»SUBJECT orders in (6) to (7) involve different structures: while constructions with the word order SUBJECT»V2 are bi-clausal non-restructuring infinitives, constructions with the word order V2»SUBJECT involve restructuring—an infinitive without a CP and IP/TP which undergoes clause union with the matrix predicate (a form of argument structure merger). In this account, the subject is base-generated in different positions: it occurs in the matrix clause in non-restructuring contexts, but in the embedded clause in restructuring contexts. Neither the verb nor the subject undergo movement. In the raising constructions in (8) (and presumably also (9)), on the other hand, the subject optionally moves to the matrix clause.

Mercado (2003) proposes that all Tagalog infinitival constructions involve restructuring and that the word order V2»SUBJECT is derived by (overt) incorporation of the embedded verb to the matrix T. Since Tagalog is a V-initial language, all verbs move to T. Infinitives are special in that, according to Mercado, both the matrix and the embedded verbs incorporate into the matrix T. In all of the examples above, the subject is base-generated in the matrix clause, and the embedded verb moves across it to matrix T. To account for the word order SUBJECT»V2, Mercado assumes that in these cases, only the formal features of the embedded verb raise to matrix T and the phonological features are left in the embedded clause.

Finally, a non-restructuring analysis is proposed by Nakamura (2000) who suggests that cases such as (9a) involve a null operator construction in which the subject is base-generated in the matrix clause and associated with a null operator A'-chain in the embedded clause (the null operator undergoes feature movement from the thematic position to the embedded C). In this section, I present further properties of Tagalog infinitives and discuss how the different accounts can or cannot handle these facts.

Although the frameworks and analyses pursued in Kroeger (1993) and Mercado (2003 differ substantially, one property these accounts share is that constructions with the V2»SUBJECT order such as (13) are assumed to involve restructuring, i.e., a monoclausal configuration. An immediate observation one can make regarding these examples is that the constructions do not involve verbs that are typically among the class of restructuring verbs in other languages. For instance, in German and Italian, *hesitate* and *plan* do not allow restructuring. In Tagalog, in con-

trast to other restructuring languages, all infinitival constructions show the properties associated with (alleged) restructuring, such as the V2»SUBJECT order.

- (13) a. <u>Nagatubili</u> ng <u>magbigay</u> **si Maria** ng pera sa bata hesitate.PERF.NOM C/L give.NOM PTT Maria DET money DAT child 'Maria hesitated to give money to the child.' [Mercado 2003: 3, (6)]
  - b. <u>Nag-balak</u> <u>bisitahin</u> **ni Maria** ang kapatid niya plan.PERF.NOM visit.ACC DET Maria PTT sibling 3.SG.GEN 'Maria planned to visit her sister.' [Kroeger 1993: 197, (60b)]

A further difference between Tagalog infinitives and restructuring in other languages, including other Austronesian languages, is that in the former no voice dependencies exist between the matrix and embedded predicates, and no argument structure deficiency seems to exist in the embedded predicate. As discussed at length in Wurmbrand (2001), the highest degree of restructuring involves embedded complements that lack a functional domain altogether. Importantly, in many languages we find a form of *long passive*, a construction in which the embedded predicate is dependent on the voice properties of the matrix predicate as illustrated by the examples in (14). In constructions where the matrix predicate is passive, for instance, the embedded object is promoted to matrix subject, and, if applicable in the language, receives nominative case and agrees with the matrix predicate. Long passive is illustrated for German in (14a), Acehnese, (14b), Mayrinax Atayal, (14c), Chamorro, (14d), and Isbukun Bunun, (14e). Languages differ regarding the voice marking on the embedded predicate—in German, Acehnese, and Mayrinax Atayal, the embedded predicate must be realized with default voice (which is typically active), whereas in Chamorro and Isbukun Bunun, for instance, the embedded verb must match the voice of the matrix predicate (changing the embedded voice to active in (14d-e) yields ungrammaticality).<sup>5</sup>

- (14) a. dass der Traktor und der Lastwagen zu reparieren versucht wurden German that [the tractor and the truck]. NOM to repair tried were. PASS PL 'that they tried to repair the tractor and the truck'
  - b. Aneuk agam nyan geu-ci (\*geu-)peuréksa lé dokto
    child male DEM 3.POL-try (\*3.POL-)diagnose by doctor
    Lit. 'The child was tried to be diagnosed by the doctor.'

    'The doctor tried to diagnose the child.' [Legate 2012: 501]
  - c. naqaru.un i t.um.uting ni yumin ku bawaq Mayrinax Atayal finish.PV LNK beat.AV beat GEN Yumin NOM pig Lit. 'The pigs were finished to be beaten by Yumin.'

    'Yumin finished beating/killing the pigs.' [Chen 2010: 5]
  - d. Pära tafan-ma-chägi ma-na'fanätuk ni lalahi siha Chamorro FUT 1PL.IR.IN-PASS-try NPL.RL.IN.PASS-hide OBL men PL Lit. 'We will be tried to be hidden by the men.'

    'The men will try to hide us.' [Chung 2004: 204]

<sup>5</sup> To account for the voice dependencies, I propose (work in preparation) that restructuring infinitives are not literally bare VPs but project a voice head, however, a severely underspecified head which lacks the ability to introduce an external argument by itself and requires its features to be valued by the matrix voice head, thereby establishing

the tight connection between the voice properties of the matrix and embedded predicates.

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e. *Iliskinun-ku bunbun-a tu baliv-un* Isbukun Bunun want. PV-1SG.ACC banana-that. NOM TU buy-PV Lit. 'The bananas are wanted to be bought by me.'

'I wanted to buy the bananas.' [Wu 2013: 40]

In Tagalog, on the other hand, as pointed out in Mercado (2003), there are no voice or argument structure dependencies of the sort illustrated in (14). The choice of matrix voice has no effect on the embedded predicate, as shown by the various options in (15) and (16) (I only give examples with the V2»SUBJECT order, which is the construction most relevant for restructuring; but the same options exist for the SUBJECT»V2 order). Note that the PTT marking of the embedded object in (16) is clearly linked to the voice of the embedded verb and the matrix voice has no effect on that relation.

(15) a. Sumubok si Manuel ng pansit na kumain C/L PLT Manuel DET noodles try.PERF.NOM eat.NOM 'Manuel tried to eat noodles.' [Mercado 2003: 12, (24b)] b. Sinubukan ng kumain ni Manuel ng pansit DET Manuel DET noodles try.PERF.DAT C/L eat.NOM 'Manuel tried to eat noodles.' [Mercado 2003: 12, (25b)] c. Sinubukan ng kainin ni Juan ang pansit C/L try.PERF.DAT DET Manuel PTT noodles eat.ACC 'Juan tried to eat noodles.' [Mercado 2003: 13, (26b)] (16) a. Binalak bisitahin ni Maria ang kapatid niya plan.PERF.ACC visit.ACC DET Maria PTT sibling 3.SG 'Maria planned to visit her sister.' [Kroeger 1993: 197, (58b)] b. Nag-balak bisitahin ni Maria ang kapatid niva plan.PERF.NOM 3.SG visit.ACC **DET Maria** PTT sibling 'Maria planned to visit her sister.' [Kroeger 1993: 197, (60b)]

Tagalog infinitives thus do not involve restructuring in the sense of a voice and/or argument structure dependency between the matrix and embedded predicates. Nevertheless a restructuring analysis has certain advantages. A common restructuring property cross-linguistically is clitic climbing. As shown in (17), clitics cannot escape from a tensed (finite) embedded clause in Tagalog. However, the minimally different infinitive in (18) allows clitic climbing. This is exactly as expected if finite clauses are full clausal domains, but (at least certain) infinitives form a monoclausal structure with the matrix clause—i.e., both Kroeger's and Mercado's restructuring accounts successfully derive the difference between (17b) and (18b).

(17) a. ang liham ko Dapat (na) binasa mo na (C/L)read.PERF.ACC ought 2.sgalready PTT letter mv 'You should have already read my letter.' [Kroeger 1993: 195, (55a)] b. \*Dapat ang liham ko mo ng binasa na ought 2.SGC/L read.PERF.ACC already PTT letter 'You should have already read my letter.' [Kroeger 1993: 195, (55b)]

| (18) a. | Dapat<br>ought    | (na)<br>(C/L)<br>ould read m | basahin<br>read.AC | _              | ang liham<br>PTT letter | ko<br>my<br>[Kroeger 1993: 195, (56a)] |
|---------|-------------------|------------------------------|--------------------|----------------|-------------------------|--|
| b.      | Dapat             | mo                           | ng                 | <u>basahin</u> | ang liham               | ko (30a)                               |
|         | ought<br>'You sho | 2.sg<br>ould read m          | C/L<br>ny letter.' | read.ACC       | PTT letter              | my<br>[Kroeger 1993: 195, (56b)]       |

On the other hand, the examples in (17) and (18) are problematic for Nakamura's (2000) analysis. Recall that Nakamura claims that raising involves A'-movement of a null operator within the embedded finite (though see fn. 4) clause. That operator is then associated with an overt argument in the matrix clause. One of Nakamura's arguments for A'-movement in raising constructions is built on the familiar observation that only PTT arguments can undergo A'-movement in Tagalog. That such restriction is also in effect in raising contexts can be seen in (19a) vs. (19b): in the former, the subject is not the trigger argument, and the structure is excluded, whereas (19b), where the subject is the trigger argument (cf. the NOM marking on V2), is well-formed. Given the PTT restriction, one may conjecture that (17b) is excluded on the same grounds as (19a). However, this assumption runs into problems when we look at (18b) and (19c). In both of these cases, a subject clitic which is *not* the PTT argument undergoes movement, and both constructions are grammatical. Thus, Nakamura's account wrongly predicts (18b)/(19c) to be ungrammatical. Alternatively, if clitics are somehow exempt from the PTT restriction, (17b) should be grammatical exactly like (18b) is.

| (19) a. | * <u>Dapat</u><br>should<br>'Miguel sh | si/ni Miguel PTT/DET Miguel nould read the ne    | basahin<br>read.ACC<br>r.'         | ang diyario<br>ang newspaper<br>[Kroeger 1993: 171, (7); Dialect A] <sup>6</sup> |
|---------|--|--|------------------------------------|--|
| b.      | <i>Dapat</i><br>should<br>'Miguel sh   | si Miguel<br>PTT Miguel<br>nould read a/the r    | magbasa<br>read.NOM<br>per.'       | ng diyario DET newspaper [Kroeger 1993: 174, (16a)]                              |
| C.      | <u>Dapat</u><br>ought<br>'He should    | <i>niya</i><br>3.SG.NON-PTT<br>I spank that naug | <i>paluin</i><br>spank.ACC<br>ld.' | ang masamang batang iyan PTT bad child that [Kroeger 1993: 179, (26b)]           |

An account of raising in Tagalog thus has to provide answers for the following questions: i) Why/how is movement of a non-PTT subject possible and why is this option only available for clitics but not for full NPs? And ii) Why is clitic movement only possible from infinitives but not from finite clauses? The second question is addressed in the restructuring accounts, but not in Nakamura's A'-movement approach. The first question is not accounted for in Mercado's and Nakamura's approaches, but is addressed in Kroeger's account where it is essentially assumed that clitic movement is not subject to the PTT restriction. The analysis I provide in this article derives the distribution of clitics (vs. full NPs) in (17) to (19) without recourse to restructuring (given the problems mentioned below) and offers an explanation for the 'special' behavior of clitics which follows from the structural composition of clitics and the specific implementation

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<sup>&</sup>lt;sup>6</sup> Examples such as (19a) show speaker variation to which I return in section 5.2.3. For now, the important point is that there are speakers (I refer to them as Dialect A) who find (19a) ungrammatical but the same speakers find (19c) grammatical. The account I propose will offer an explanation for the speaker variation.

of the PTT extraction restriction I propose.

While Kroeger's and Mercado's restructuring approaches provide a straightforward account for the clitic climbing contrast in (17b) vs. (18b), the distribution of clitics also raises some challenges for these accounts. As shown in the raising examples in (18), clitic climbing is optional in certain infinitival constructions. In (18), the clitic is the embedded subject; in the V2»SUBJECT constructions in (20), the object undergoes clitic climbing, leaving the subject in post-V2 position. This optionality, however, only holds for V2»SUBJECT constructions in which the matrix verb is a raising verb but not for V2»SUBJECT constructions in which the matrix verb is a control verb. While 'stranding' a clitic is possible in the (backward) raising structure in (20), it is excluded in the (backward) control structure in (21) (optionality does arises in FCR, as will be discussed in section 5.3.3).

| (20) a | a. | <i>Hindi</i><br>not | <u>dapat</u><br>should  | <u>utusan</u><br>order.DA | <i>siya</i><br>г 3.SG.F   | РТТ            | ni Pedr             |                              | BR             |
|--------|----|---------------------|-------------------------|---------------------------|---------------------------|----------------|---------------------|------------------------------|----------------|
|        |    |                     | should not or           |                           |                           |                |                     |                              | 93: 190, (46)] |
| ł      | b. | <i>Hindi</i><br>not | <i>siya</i><br>3.SG.PTT | <u>dapat</u><br>should    | <u>utusar</u><br>order.   | _              | ni Pedr             |                              | BR             |
|        |    | 'Pedro s            | should not or           | der her ard               | ound.'                    |                |                     | [Kroeger 199                 | 93: 190, (47)] |
| (21) a | a. | *Hindi<br>not       | <u>kaya</u><br>able     | ng<br>C/L                 | <u>utusan</u><br>order.DA | <i>si</i> y    | <i>va</i><br>SG.PTT | <i>ni Pedro</i><br>DET Pedro | BCR            |
|        |    | 'Pedro              | cannot order            | her around                | 1.'                       |                |                     | [Kroeger 1993                | 3: 183, (32b)] |
| ł      | b. | Hindi<br>not        | <i>siya</i><br>3.SG.PTT | <u>kaya</u><br>able       | ng<br>C/L                 | utusa<br>order |                     | ni Pedro DET Pedro           | BCR            |
|        |    | 'Pedro              | cannot order            | her around                | 1.'                       |                |                     | [Kroeger 1993                | 3: 183, (32a)] |

Under Kroeger's account, the different clitic placement options are the result of different structures: a clausal complementation structure in (20a) (recall that *dapat* is a raising verb which does not select a subject) and a restructuring configuration in (20b) and (21). Since, in this account, clitics target the IP domain in Tagalog and restructuring configurations lack an IP, the different clitic positions follow essentially from the presence, (20a), vs. absence, (20b), (21), of an embedded IP projection. While this account is descriptively correct, a question arising is why control and raising verbs differ regarding the option of combining with a full clausal complement.

Under Mercado's account the optionality in (20) poses a challenge. Since all infinitives are assumed to undergo incorporation into the matrix T, the low clitic position in (20a) may be problematic. Tagalog clitics must be placed in second position within the TP, that is, typically after the (first) verb as in (18b), unless there is another element in the TP preceding the verb such as the negative element in (20b) and (21b) (see Kroeger 1993, Rackowski 2002). Since, in Mercado's account, the embedded verb has undergone movement to the matrix clause (i.e., the embedded TP is deficient), the clitic should appear after negation in (20), and placement after the second verb should be excluded. This is indeed the case in (20b) and (21)—placement of the clitic after the embedded T (i.e., the embedded verb) is impossible, since, due to restructuring, the clitic domain is the entire sentence. If (21a) is excluded due to obligatory restructuring, however, the same should apply in (20a). Since both examples involve infinitives, there should be no difference in the status of the embedded clause. Note also that the embedded verbs and subjects are identical in (20a) and (21a), which makes a prosodic account (e.g., the PF clitic domain can be the matrix or embedded TP in (20a) but must be the matrix TP in (21a)) unlikely. Mercado's

account would hence need to be supplemented by the option of some form of bi-clausal structure in which an infinitive does not undergo movement into the matrix clause for cases such as (20). If, however, this is an option for Tagalog infinitives (i.e., Tagalog infinitival T can be licensed in situ and does not require incorporation), it should also be an option in other V2»SUBJECT constructions (i.e., alleged restructuring configurations). The account I propose in this article will dispense with incorporation and derive the difference between the raising and control cases in (20) vs. (21) from locality considerations.

Lastly, the positioning of clitics poses another challenge, this time for Kroeger's account. As shown in (22), for some speakers (see section 5.3 for dialect variation), clitic climbing is not only possible in the V2»SUBJECT order, but also in the SUBJECT»V2 order. Since, according to Kroeger, the latter order does not involve restructuring, clitic climbing should be prohibited. On the other hand, no problem arises this time for Mercado's account since verb movement, which is responsible for restructuring, applies in the SUBJECT»V2 order as well. The only difference between the V2»SUBJECT and the SUBJECT»V2 order is whether the phonological features of the verb (plus all other heads picked up on the way) are carried along or not. Since in both orders syntactic verb-movement applies, all infinitives end up 'restructured' (i.e., as mono-clausal configurations), and the transparency for clitic climbing in both orders follows.

| (22) | a. | Sinubukan<br>try.DAT.PERF<br>'Isabel tried to |                        | ni Isabel DET Isabel some congee.' | na<br>C/L | <i>pakainin</i> feed.ACC | ng lugaw DET congee [Mercado 2003: 9, (17)] |
|------|----|---|------------------------|------------------------------------|-----------|--------------------------|---|
|      | b. | <u>Gusto</u>                                  | <i>iya</i><br>S.SG.PTT | <i>ni Isabel</i><br>DET Isabel     | na<br>C/L | sumayaw<br>dance.NOM     | , , ,                                       |

Before turning to an analysis of clitics and infinitives in Tagalog that overcomes the challenges noted above, I would like to briefly mention two other properties that have been offered in support of a restructuring analysis. Mercado (2003) argues that Tagalog infinitives allow interclausal object shift and scrambling. Long distance object shift is claimed to have applied in (23a), whereas the structure in (23b) in which there is no PF-visible verb movement does not allow object shift out of the infinitive. In (24), the word orders in c. to f. are taken to indicate movement (scrambling) of an argument from the infinitive into the matrix clause. The evidence for these interclausal movements is very theory-internal. Under Mercado's proposal the subject in an infinitival construction always originates in the matrix clause, therefore any element belonging to the embedded clause which surfaces to the left of the subject must have undergone (long-distance) movement to the matrix clause as well. The motivation for object shift in (23a) comes from the assumption that PTT arguments must move to Spec,vP, and since the embedded verb (the verb which the PTT object agrees with) undergoes movement to the matrix clause, the object must also have moved to the matrix Spec,vP (this movement is masked by further scrambling, given that Tagalog is a language with fairly free word order).

(23) a. Nagbalak dalawin ni Juan sa bahav si Maria na plan.PERF.NOM C/L visit.ACC DET Juan OBL house PTT Maria 'Juan planned on visiting Maria at home.' [Mercado 2003: 2, (5)] Nagbalak sa bahav b. si Juan dalawin si Maria ng plan.PERF.NOM PTT Juan C/L visit.ACC PTT Maria OBL house 'Juan planned on visiting Maria at home.' [Mercado 2003: 2, fn. 3 (i)]

| (24) a. | <i>Nagatubili</i> ng    | <u>magbigay</u> | si Maria  | ng pera   | sa bata              |
|---------|-------------------------|-----------------|-----------|-----------|----------------------|
|         | hesitate.NOM.PERF C/L   | give.NOM        | PTT Maria | DET money | DAT child            |
|         | 'Maria hesitated to giv | e money to the  | child.'   | [Me       | ercado 2003: 3, (6)] |
| b.      |                         |                 | si Maria  | sa bata   | ng pera              |
| c.      |                         |                 | ng pera   | si Maria  | sa bata              |
| d.      |                         |                 | ng pera   | sa bata   | si Maria             |
| e.      |                         |                 | sa bata   | si Maria  | ng pera              |
| f.      |                         |                 | sa bata   | ng pera   | si Maria             |

Given the lack of surface difference in the position of the object in (23a) and (23b), it is somewhat difficult to see the evidence for object shift in the former. It is also not clear why object shift should be prohibited in (23b) in Mercado's account, given that both examples involve restructuring. Furthermore, examples like (23b) present another challenge for the view that all infinitives involve a mono-clausal structure: the sentence would involve two PTT arguments, which is not possible in a single clause in Tagalog otherwise. Such examples are, of course, unproblematic in Kroeger's account where infinitives with the SUBJECT»V2 order are non-restructuring constructions comprising of two clausal domains. A final reason to doubt the presence of interclausal movements in any of the examples in (23) and (24) comes from the fact that object movement is restricted in Tagalog, as shown, for instance, by the examples in (25) (see section 5.3.4 for dialect variation of these constructions). Example (25a) shows that in the V2»SUBJECT order, the two verbs can be separated by a moved topic or focus phrase. Yet in the same (supposedly restructuring) order, object movement is impossible for speakers of Dialect A (cf. (25b,c).

| should tomorrow TOP/FOC go PTT Juan OBL l   | ibrary                    |
|---|---------------------------|
| 'Juan should go to the library tomorrow.'   | [Miller 1988: 55, (49)]   |
| b. * <u>Dapat</u> ang diyario na <u>basah-in</u> <b>ni Migu</b><br>should PTT newspaper C/L read-ACC DET Mig                            |                           |
| 'The newspaper should be read by Miguel.' [Kroeger 1993   | 5: 174, (16b); Dialect A] |
| c. *Hindi <u>kaya</u> si Maria ng <u>utusan</u> <b>ni Ped</b> not able PTT Maria C/L order.DAT DET P 'Pedro cannot order Maria around.' |                           |

Assuming a (backward) subject movement analysis for (23a) and (24), the surface position of the subject would be in the embedded clause, hence no scrambling or object shift would be necessary nor motivated in these examples. This is the approach I will take in this article, and a major part of the analysis will be to develop locality conditions for movement so that subject movement is allowed, but object movement as in (25) is prohibited.

### 3. A SUBJECT MOVEMENT ANALYSIS

### 3.1 Basic assumptions about clause structure

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<sup>&</sup>lt;sup>7</sup> Mercado only notes on p. 7-8, fn. 8: "Long Distance Object Shift and Interclausal Scrambling can only occur with observable Verb Raising".

The analysis I propose in this article builds on the strengths of the previous approaches, but implements them in a different theoretical context, which will allow us to overcome the difficulties and account for several other puzzles arising in infinitival constructions in Tagalog.

Recall from the previous section that Kroeger's account fares very well in accounting for the two positions of clitics in infinitival constructions as well as the fact that two PTT arguments can be present in the SUBJECT»V2 order. An obligatory restructuring analysis applying to all infinitival constructions does not appear to be suited to handle these properties. I therefore borrow from Kroeger's account the claim that infinitival constructions involve two separate clausal domains and that the subject in an infinitival construction can be base-generated in the matrix (control) or the embedded clause (raising or control). In contrast to Kroeger's account, I maintain that there are always two clausal domains (there is no restructuring), but that the embedded clause allows certain dependencies to span across it in certain contexts.

Mercado's account, on the other hand, has the advantage that it allows functional projections (such as vP, TP) in all infinitives but that these projections can be 'circumvented' if necessary. While, in contrast to both approaches, I reject the hypothesis that infinitival constructions involve a mono-clausal configuration (i.e., I employ neither verb movement out of an infinitive, nor any clause union mechanism such as argument structure fusion), I assume that, very much like what is typically assumed for English, infinitival T in raising constructions is 'deficient' in not being able to Case license the embedded subject. This has as a consequence that in raising constructions the embedded subject must enter a dependency with the matrix T (cf. (26a)). Following current views, this dependency is established via Agree and only possible when the subject is accessible to matrix T—that is, the subject has not yet been spelled-out—and no competing NP occurs between T and the subject. In control constructions, the embedded subject also establishes a (Move or Agree) dependency with an element in the matrix clause, namely the matrix subject or the matrix v (cf. (26b)). Since it will not be crucial for the proposal, I leave open whether subject Case is assigned infinite internally or via the control dependency.

(26) a. 
$$T_{Matrix}$$
 .... [INFINITIVE SUBJECT  $T_{[\text{-Case}]}$  ]

b. SUBJECT/ $v$ ... [INFINITIVE SUBJECT  $T_{[\pm \text{Case}]}$  ]

Control

Since both raising and control dependencies must be local, to determine accessibility, the phasal status of the intervening projections needs to be established. There are two assumptions I make, which have been proposed independently for other languages. First, in Tagalog infinitival C, if projected at all, lacks phasal status.<sup>8</sup> Subjunctives and infinitives, in contrast to finite CPs, are porous for various properties cross-linguistically, and a common means to derive this transparency involves the deactivation of the CP phase (see, for instance, Alboiu 2006, 2007).

Second, Tagalog is a VSO language, and I follow Alexiadou and Anagnostopoulou (1998) regarding how the EPP is satisfied in VSO languages. I assume that T involves unvalued  $\varphi$ -features, which, in (certain) VSO languages are valued by v after v+V-to-T movement takes place. Since the  $\varphi$ -features of v are valued by the subject (before v undergoes movement to T), T

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<sup>&</sup>lt;sup>8</sup> As pointed out in fn. 3, the status of na/ng (C/L) is far from clear. Since it can always be dropped, it is unlikely that it is associated with an essential semantic function. I have no further insights regarding the status of na/ng, other than that, whatever head it ultimately is, it is not a phase head.

in V-movement languages is also indirectly valued by the subject, but without the subject moving to Spec,TP. Following several recent strands of research (see for instance den Dikken 2007, Gallego 2005, 2010, Gallego and Uriagereka 2006, AAW, To appear), I assume that this form of head movement extends (or slides up) the  $\nu$ P phase to TP. Thus, as shown in (27), for a subject embedded in an infinitive to be visible for matrix T, the subject must move at least to the specifier of the embedded TP (indicated by \_\_\_\_). Although  $\nu$ P is not a phase in Tagalog, TP is, and hence, assuming a cyclic spell-out model,  $\nu$ P is spelled-out when TP is complete. If the subject remained  $\nu$ P-internally, it would not be accessible to matrix T, since it would be spelled out as part of the  $\nu$ P, and spelled out items are inaccessible for further Move and Agree operations.

(27) 
$$T_{\text{Matrix}} \dots [(CP_{\nu P_{r}Phase} C) [TP=Phase \_ T+\nu+V [\nu_{P_{r}Phase} SUBJECT \nu+V VP]]]$$

While I will not further justify these two assumptions in this article (but refer the reader to the works citied), the proposal provided in this article can be seen as indirect motivation for the system in (27) since it offers a new way of deriving extraction restrictions and makes some interesting predictions for raising and control in Tagalog, which, surprisingly, are borne out and so far not accounted for under other accounts.

### 3.2 Basic F(C)R and B(C)R derivations

In this section, I discuss the basic analysis of Tagalog infinitival constructions in which the embedded verb agrees with the agent argument (i.e., the underlying external argument is the PTT argument). Cases in which the embedded verb agrees with an argument other than the subject are postponed until section 5. Two basic cases involving forward raising (FR) and backward raising (BR) are given in (28a) and (28b), respectively, and the structure proposed is in (28c).

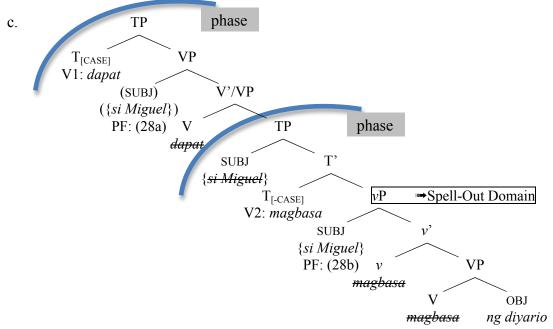
As shown in (28c), V-to-T movement extends the embedded vP phase to TP, making the vP a Spell-Out Domain [SOD] which becomes inaccessible after the embedded TP phase is completed. To be accessible to matrix T for Case licensing, the embedded subject must move to the embedded Spec,TP. In this position, matrix T can Agree with the subject and license its Case, since in the matrix clause, too, V-to-T movement extends the v/VP phase to TP.9 Matrix T can thus see everything down to the embedded T, but not the (contents of the) embedded vP. (I stay indifferent about what features exactly are involved in structural Case licensing, assuming simply that (finite) T must Agree with the DP to license it.) Since Tagalog allows BR, pronunciation of the lower copy of the subject (i.e., the copy in the embedded Spec,vP) is possible, yielding the structure in (28b).<sup>10</sup>

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<sup>&</sup>lt;sup>9</sup> For simplicity, I only give a VP structure for raising constructions with verbs like *dapat*. Since *dapat* (and other modals) do not show PTT agreement (the verb always occurs in the bare form) and do not assign a subject theta-role, a  $\nu$ P does not appear to be necessary. However, in other raising constructions there may also be an aspectual or unaccusative  $\nu$ P above the VP. Furthermore, I assume (following, among others Legate 2003, Sauerland 2003, Wurmbrand 2013) that passive, unaccusative, and raising  $\nu$ VPs are phases, which in  $\nu$ V-to-T movement languages are extended to TP.

<sup>&</sup>lt;sup>10</sup> An interesting question is whether it is also possible to spell-out the copy of the subject in the embedded Spec,TP at PF. This is difficult to show, since generally there is an adjacency requirement between the complementizer/linker element and the verb which prohibits the order C—SUBJ-T/V (this requirement may be the result of further V-movement to C). However, Mercado (2003) notes that certain focus constructions allow material to occur between C and the verb. The example given there involves an ECM-construction, however, and no data for raising infinitives are currently available. Due to the lack of data, I need to leave this question open at this point.

 $(na)^{11}$ (28) a. Dapat si Miguel magbasa ng diyario FR PTT Miguel (C/L)DET newspaper should NOM.read 'Miguel should read a/the newspaper.' [Kroeger 1993: 174, (16a); T. Silao, p.c.] b. Dapat magbasa si Miguel ng diyario BR/Agree NOM.read should PTT Miguel DET newspaper 'Miguel should read a/the newspaper.' [T. Silao, p.c.]



To derive (28a), the subject moves further to the matrix clause. Since *dapat* is a raising verb which does not assign a subject theta-role (see below) and Case can be assigned to the subject in the embedded Spec,TP via Agree, this movement is optional from the perspective of Aproperties such as Case and thematic licensing. I will return to the specifics of this movement in section 5.2.1, but at this point, we can note that raising constructions differ from control constructions in exactly this second step of movement, which, as I will lay out momentarily, is obligatory in control constructions derived by movement.

The examples in (6)/(10) are repeated again in (29a,b), and the structure proposed is given in (29c). As shown, phases are again the embedded and matrix TPs due to V-to-v-to-T movement. The C/L element is not a phase head but I assume it is part of the higher vP/TP phase (note that the ng form always cliticizes to the previous word, showing that it is part of the prosodic domain of the matrix VP in (29)). As in raising constructions, the subject starts out in the embedded vP and raises to the embedded Spec,TP to escape Spell-out of the embedded vP when TP is completed. In this position, the subject would be visible for matrix T, however, since the higher verb is a control verb, which requires an external argument, the subject cannot remain in

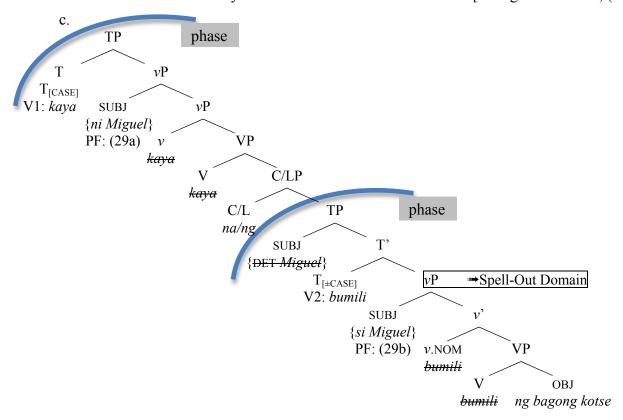
<sup>&</sup>lt;sup>11</sup> T. Silao prefers the example without the C/L element *na*. This would be expected if an embedded CP is phasal and thus blocks A-dependencies across it. However, both Kroeger (1993) and Mercado (2003) indicate that these elements are possible in all types of infinitives. Since the empirical (and potentially dialectal) variation regarding the C/L element is not clear at this point, I follow the works cited and pursue an analysis along the lines of CP-phase deactivation as proposed in section 3.1.

Spec, TP, but must move and merge with v to establish an argument-of relation with the matrix predicate. Note that I do not assume that theta-roles are features, but I rather follow an approach according to which merge relations are translated semantically as thematic relations such as agent of in the case of a Merge pair {DP,v.AGENT}. If a control verb like try, can does not merge with a DP that can be interpreted as an agent, the structure fails semantically. As is generally the case in a movement approach to control, there is no restriction against a single argument establishing more than one 'argument of' relation. Importantly, since theta relations are not features, argument of relations cannot be established at a distance, and movement of a DP to the argument introducing head is required. Thus, the second step of movement in (29) is obligatory. Lastly, as in raising, there is again an option to pronounce different copies of the subject movement chain. If the lower copy is pronounced, the subject realizes the voice properties of the embedded v. In the example in (29), the embedded v Agrees with the subject (indicated as v.NOM), and the subject is hence realized with the si marker when the lower copy is pronounced. If the higher copy is pronounced, the subject is realized with the *ni* marker, since the modal *kaya* does not show overt voice agreement (nor any other morphology), hence the subject occurs with the non-agreeing NON-PTT form.

(29) a. <u>Kaya</u> **ni Manuel** na <u>bumili</u> ng bagong kotse FC(R) able DET Manuel C/L NOM.buy DET new car 'Manuel is able to buy a new car.' [Kroeger 1993: 182, (29a)]

b. <u>Kaya</u> =ng <u>bumili</u> **si Manuel** ng bagong kotse
able C/L NOM.buy PTT Manuel
'Manuel is able to buy a new car.'

DET new car
[Kroeger 1993: 182, (29b)]



Although I postpone the details of the analysis of voice agreement and the locality conditions on

movement to the sections to come, it is worth mentioning at this point already that the crucial difference between raising and control—whether movement of the subject to the matrix clause is required (control) or not (raising)—offers an account of the contrast regarding clitic placement found in (20) and (21) (the relevant examples are repeated as (30)). An infinitive-internal clitic position is available in BR, (30a), but not in BCR constructions such as (30b). In short, I propose that clitics are in an A'-position above TP (cf. (30c)), and that the TP phase extends to this CIP. Thus, the embedded subject must move to the edge of CIP in (30) to be visible for Case licensing by matrix T. In raising constructions, this is all that is needed, and as long as T can assign Case to a DP in an A'-position, which I assume is possible (see, for instance, Şener 2008 for arguments that Case can be assigned to an A'-position in Turkish), the structure succeeds. In control constructions, on the other hand, the subject must move on to the matrix clause, and this movement must be A-movement since it involves establishing an *argument of* relation. Thus, in cases such as (30b), the embedded subject would have to move (covertly) from Spec,CIP (an A'-position) to the matrix Spec,vP (an A-position), which is ruled out by whatever one's favorite *improper movement* constraint is (see section 4.4 for a suggestion).

# 3.3 Questions and some further properties

The analysis presented in the previous section raises several questions which the remainder of this article will answer. Since a crucial part of the analysis involves movement out of an embedded clause, we need to consider the restrictions on movement which are in effect in Tagalog. As pointed out in the introduction, extraction in Tagalog is generally subject to the PTT restrictions: only PTT arguments can be extracted, as shown in (31). In this section, I will summarize cases which apparently violate the PTT restriction in infinitives under a movement analysis as proposed here. In the sections to follow, I will then provide a new account of the PTT restriction and show that, applied to raising out of infinitives, it correctly predicts the possible and impossible movement operations of NON-PTT arguments.

```
(31) a.
                                            ng kotse mo?
          Sino
                            nagnakaw
                   ang
          who
                   ANG
                            steal.PERF.NOM DET car 2.POSS
          'Who stole your car?'
                                                                 [Rackowski 2002: 30, (33a)]
         *Sino
                                            ang kotse mo?
     b.
                            ninakaw
                   ang
                            steal.PERF.ACC PTT car 2.POSS
          who
                   ANG
          'Who stole your car?'
                                                                 [Rackowski 2002: 30, (33b)]
```

We have already seen in the previous section that the PTT restriction seems to be in effect in (forward) raising constructions as well. Examples (32a,b) (repeated from (19)) show that extraction of a PTT subject is possible, (32a), whereas raising of the subject is excluded when it is not the PTT argument of the embedded verb, (32a,b). There are, however, two issues that a move-

ment analysis needs to address. First, as noted in fn. 6, there is speaker variation regarding constructions such as (32b). As shown in (32c), given here as Dialect B, a NON-PTT subject is possible in the matrix clause even in cases where the embedded verb agrees with the object. Second, (32d) again gives a raising construction with a clitic subject, and here, too, a NON-PTT subject is possible in a raising context, crucially in this case for both Dialects A and B. The questions for the current movement analysis are thus:

i) How is movement of a NON-PTT clitic subject possible?

'He should spank that naughty child.'

- ii) How is movement of a NON-PTT full NP subject possible?
- iii) Why is ii) only possible in one dialect, whereas i) is possible in all dialects?
- (32) a. si Miguel ng divario FR Dapat na magbasa should PTT Miguel C/L NOM.read DET newspaper 'Miguel should read a/the newspaper.' [Kroeger 1993: 174, (16a)] b. si/ni Miguel ang divario FR \*Dapat basahin read.ACC should PTT/DET Miguel C/L ang newspaper 'Miguel should read the newspaper.' [Kroeger 1993: 171, (7); Dialect A] Maaari **ni John** paluin c. ang batang iyan FR spank.ACC PTT child that ought DET John 'John can spank that child.' [Miller 1988: 33, (22b); Dialect B] d. Dapat niva ng paluin ang masamang batang iyan FR 3.SG.NON-PTT C/L spank.ACC PTT bad child that ought

[Kroeger 1993: 179, (26b)]

Turning to control constructions, the movement analysis also raises certain questions regarding the PTT restriction. In addition to control examples such as (6) and (7), where the subject is the PTT argument and movement would be in accordance with the PTT restriction, Tagalog also allows control constructions such as (33). In these examples, the matrix subject is the PTT argument of the matrix verb, however, it is not the PTT argument of the embedded verb. The possibility of (33) (in particular in Dialect A) contrasts with the impossibility of the parallel raising example in (32b) where the embedded object agreement blocks movement of the subject. The analysis I will pursue in section 5.2 will rule out overt movement of a NON-PTT full NP argument in raising contexts in Dialect A and in control contexts in all dialects. Thus, a movement derivation will not be available for examples such as (33), due to the PTT restriction (to be formalized). The question then is why (33) is nevertheless grammatical. The answer lies in the crucial difference between (32) and (33)—the former is a raising constructions whereas the latter is a (forward) control construction (i.e., a configuration in which the matrix verb assigns a theta-role to the subject). Given that Tagalog is a pro drop language, a configuration with a subject basegenerated in the matrix clause and an embedded pro subject, as given in (33c), is expected to exist, which, following Miller (1988), is indeed the structure I propose for (33). In section 5.2.2, I provide motivation for this account.

(33) a. <u>Nag-sikap</u> **si Luz** na <u>hiramin</u> ang pera sa bangko FC try.PERF.NOM PTT Luz C/L borrow.ACC PTT money OBL.DET bank 'Luz tried to borrow money from the bank.' [Kroeger 1993: 197, (59a)]

b. Nag-balak si Maria bisitahin ang kapatid niva FC ng PTT sibling 3.SG.GEN plan.PERF.NOM PTT Maria C/L visit.ACC 'Maria planned to visit her sister.' [Kroeger 1993: 197, (60a)] V1 **SUBJECT** V2.ACC FCTP pro

Lastly, we also find BCR constructions such as (34)—that is, configurations in which the subject has moved to the matrix clause (to establish the *argument of* relation with the matrix v, which introduces and agent), but is pronounced in the embedded clause. In contrast to the BCR cases discussed before, (34) involves a subject which is not the PTT argument of the embedded clause; the embedded verb agrees with the object rather than the subject (as is again shown by the NON-PTT marking on the subject, the PTT marking on the object, and the ACC marking on the verb). Since a *pro* analysis is not available for these cases (a *pro* subject in the matrix clause would c-command the embedded subject and trigger a Condition C violation), movement must indeed have applied. This leads us to the last question regarding the PTT restriction for subject movement: Why is BCR (or put differently, covert movement) of a NON-PTT subject possible in all dialects, but F(C)R (or overt movement) is not?<sup>12</sup>

(34) a. Nag-sikap hiramin ni Luz ang pera sa bangko BCR try.PERF.NOM borrow.ACC DET Luz PTT money OBL.DET bank 'Luz tried to borrow money from the bank.' [Kroeger 1993: 197, (59b)]

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<sup>&</sup>lt;sup>12</sup> Another often mentioned restriction on extraction in Tagalog is that cross-clausal extraction requires the matrix verb to agree with the embedded clause rather than the moved element. If control constructions involve cross-clausal movement, as I propose here, but cross-clausal extraction requires that the matrix verb agree with the embedded clause, one may wonder how agreement with the subject (the element that I claim undergoes movement) is possible in cases such as (34). While the restriction on agreement with the embedded clause is well-established for longdistance wh-movement, I believe it does not automatically carry over to movement out of control and raising infinitives. Although I cannot provide a detailed account here, I would like to offer a specific view on PTT agreement which will distinguish different types of cross-clausal extraction. The crucial factor lies in the determination of which elements can undergo PTT agreement. Typically, voice agreement is with an argument of the extended verbal predicate of which v is a part of (i.e., an argument of V, an applicative, or voice head). I assume that this is indeed a requirement: the PTT feature of v can only be licensed by an argument of the v+V predicate. Thus, in typical crossclausal agreement contexts, the moved element is not an argument of the matrix v+V predicate, hence it cannot PTT-Agree with the matrix v (even if movement through Spec.vP was possible). The embedded clause, however, is and argument of the matrix predicate, and hence agreement with the embedded clause occurs instead of agreement with the moved element. The situation is crucially different, however, in control contexts, in particular in BCR configurations where the embedded subject is an argument of the matrix v (or rather it becomes one after movement and Merge with v). Thus, moved subjects in control contexts, despite having undergone cross-clausal movement are possible licensors of matrix v, and agreement as in (34) is not problematic. This account can also be extended to raising constructions. Although raising constructions involving modals such as dapat show no PTT marking on the matrix verb, raising constructions with appear as in (9) do. As shown, both FR and BR pattern with control movement and not wh-movement—the matrix verb Agrees with the moved subject rather than the embedded clause. This is expected if PTT agreement is restricted to arguments of the respective verb, where argument-hood applies to phrases which establish a thematic relation with the v+V predicate as well as phrases that bear a grammatical function of the v+V predicate (such as 'subject-of'). Thus, in both raising and control contexts, the moved subject qualifies as an argument of the matrix predicate and can hence PTT license the matrix v it. For the rest of this paper, I will therefore assume that PTT marking in raising and control contexts works like in simple clauses rather than in cross-clausal extraction contexts where no argument relation exists between the moved element and the matrix v.

b. <u>Nag-balak</u> <u>bisitahin</u> **ni Maria** ang kapatid niya BCR plan.PERF.NOM visit.ACC DET Maria PTT sibling 3.SG.GEN 'Maria planned to visit her sister.' [Kroeger 1993: 197, (60b)]

Turning to object movement out of infinitives, we can also observe several puzzles. First, object movement is again dialectally restricted—Dialect A disallows object movement out of a (backward) raising infinitive, (35a), whereas Dialect B allows it, (35b). Similar to subject movement, object clitics also behave differently from object full NPs: in all dialects, movement of a PTT object clitic is possible as shown in (35c).

- (35) a. \* <u>Dapat</u> <u>ang diyario</u> <u>na basah-in</u> **ni Miguel** BR should PTT newspaper C/L read-ACC DET Miguel
  'The newspaper should be read by Miguel.' [Kroeger 1993: 174, (16b); Dialect A]
  - b. <u>Dapat</u> <u>ang masamang batang iyan</u> <u>na paluin</u> **ng mga magulang niya** BR ought PTT bad child that C/L spank.ACC DET PL parent 3.SG 'His/her parents ought to spank that naughty child.'[Miller 1988: 29, (18b); Dialect B]
  - c. <u>Dapat</u> <u>siya</u> <u>ng paluin</u> **ng guro** BR ought 3.SG.PLT C/L spank.ACC 'He/She ought to be spanked by the/a teacher.' DET teacher [Kroeger 1993: 177, (20a)]

Lastly, (36) shows a set of data raising some questions regarding the combination of clitic movement and object movement. As we have seen in (21b), repeated as (36a), a PTT object clitic can climb to the matrix clause in a BCR construction. Climbing of a PTT object clitic in forward control, however, is subject to dialectal variation as shown in (36b,c) ((36c) is from Dialect A, which is again more restricted than other varieties). Lastly, (36d) shows that movement of a full NP object is possible out of certain control infinitives, even in Dialect A, however, only if the subject is a clitic.

- (36) a. *Hindi* siya kaya ng utusan ni Pedro BCR not 3.SG.PTT able C/L order.DAT DET Pedro (\*Pedro cannot order her around.\* [Kroeger 1993: 183, (32a)]
  - b. Sinubukan siva ni Isabel FC na pakainin ng lugaw try.DAT.PERF 3.SG.PTT**DET Isabel** C/L feed.ACC DET congee 'Isabel tried to feed him some congee.' [Mercado 2003: 9, (17)]
  - c. ?\* <u>Gusto</u> <u>ako</u> **ni Manuel** na <u>patayin</u> FC want 1.SG.PLT DET Manuel COMP kill.ACC 'Manuel wants to kill me.' [Kroeger 1993: 206, (71a); Dialect A]
  - d. <u>Gusto</u> **ko** <u>si Juan</u> <u>ng tawagan</u> FC/BCR want 1.SG.NON-PLT PLT Juan COMP call.DAT 'I want to call Juan.' [Kroeger 1993: 180, (27c)]

The aim of this article is to develop an account that provides answers for the questions raised in this section and to derive the distribution of subject placement and movement from infinitives from the general properties of the phrase structure and extraction restrictions in Tagalog. In the next section, I present a new approach to PTT marking and the extraction restrictions in Tagalog, and in section 5, I provide an analysis of Tagalog raising and control infinitives, and an account of the dialect variation observed.

### 4. EXTRACTION RESTRICTIONS IN TAGALOG

The account developed in this paper follows approaches that treat the voice and PTT marking in Tagalog as a reflex of a functional head in the TP/vP domain agreeing with a particular argument. For instance, Pearson (2005) proposes that PTT movement involves movement of an operator (which is coindexed with a base-generated higher topic, the PTT argument) to the CP-domain. Voice marking on the verb in this theory is the spell-out of the head assigning Case to the operator undergoing PTT movement. Rackowski (2002) and R&R (2005) assume that PTT movement is a process of object shift, which brings a specific object into the highest position of vP, and as such closest to T. Voice marking then results from T Agreeing with this argument. I follow the latter works in that the first step of PTT movement targets Spec,vP and is triggered by the same properties as object shift, thus only specific arguments undergo PTT movement.<sup>13</sup> In contrast to the above works, I propose that PTT agreement is established between the PTT argument and v rather than T. In this respect, I follow Aldridge's (2004, 2006, 2007) analysis for transitive constructions, however I assume that all PTT arguments (whether subject or object) agree with v, and that Case is assigned in a nominative-accusative fashion.

If an argument undergoes further movement, movement has to pass through Spec, TP due to TP being a phase. To derive the PTT extraction restriction I propose that there is a PTT matching requirement in TP. I show that, in contrast to previous approaches, the feature and agreement system developed here, together with an approach in which PF copy deletion voids syntactic violations, derives certain word order restrictions, the standard PTT extraction restrictions, and, importantly, correctly predicts the distribution of movement in raising and control constructions. Since the concept of evaluating syntactic violations at PF is crucial for the analysis to be proposed, I first summarize the theoretical framework which I adopt here.

### 4.1 Violation evaluation at PF

An observation going back to at least Ross (1969) is that ellipsis can save certain island violations, as shown in the examples below.

- (37) a. \*She kissed a man who bit one of my friends, but Tom does not realize which one of my friends she kissed a man who bit.
  - b. She kissed a man who bit one of my friends, but Tom does not realize which one of my friends. [Ross 1969: 276]
- (38) a. \*Ben will be mad if Abby talks to one of the teachers, but she couldn't remember which (of the teachers) Ben will be mad if she talks to.
  - b. Ben will be mad if Abby talks to one of the teachers, but she couldn't remember which. [Merchant 2001: 88]

One approach to implement this phenomenon has been to evaluate syntactic violations at PF, specifically after certain PF-deletion options (such as ellipsis) have taken place (Chomsky 1972, Merchant 2001, Bošković 2011, among many others). A convention used since Chomsky (1972) is to mark elements that cause a violation of some syntactic condition as illicit PF objects in the

 $<sup>^{13}</sup>$  The account I will develop does not exclude further movement of the PTT argument as suggested in Pearson (2005).

course of the derivation when the violation occurs. Following recent works, I use the convention to mark illicit PF objects with \*s, which cause the derivation to fail if such star-marked objects survive into the PF output. A specific implementation of the star-marking system has recently been provided in Bošković (2011), and I show in this article that Tagalog provides surprising new evidence for this system. Bošković investigates the intervention properties of elements that intervene in a movement dependency, but which themselves then undergo movement, thereby becoming copies which are subject to PF deletion. He observes an interesting generalization, which I abstractly summarize in (39) (I refer the reader to the original article for details and examples). The first step is given in (39a,b): a basic A- or A'-dependency (e.g., a movement dependency) is established between X and Y in (39a,b), indicated by A/A'-subscripts. If there is an intervening element of the same A/A'-type, that intervener is star-marked, and the type of star depends on the type of dependency between X and Y: an A-star is assigned when the intervener interrupts an A-dependency, and an A'-star when it interrupts an A'-dependency. In other words, an A-intervener is an illicit A'-element. If the structures in (39a,b) reach PF as they are, the \*s on the interveners yield ungrammaticality.

Suppose now that the intervener undergoes movement itself, yielding two copies which are subject to PF choice and deletion. The pattern that arises is shown in (39c-e). If an A-intervener undergoes further A-movement, the original intervention effect yields ungrammaticality (cf. (39c). Similarly, if an A'-intervener undergoes further A'-movement, the original intervention effect also still yields ungrammaticality (cf. (39d)). The interesting case is one where an A-intervener undergoes further A'-movement as in (39e)—in this case the intervention effect is 'rescued'. (A case in which an A'-intervener undergoes further A-movement cannot be given since this constellation constitutes a case of *improper movement*, which is independently excluded; see section 4.4.) Thus, the generalization is that violations are conditional in that an intervener which is marked as an illicit A-element at one stage of the derivation, becomes licit at a later stage in the derivation if it ceases to be an A-element at that later stage.

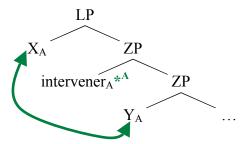
| (39) a. |                              | $X_A$   | {intervener <sub>A</sub> * <sup>A</sup> }   | $Y_A$ |
|---------|------------------------------|---------|---|-------|
| b.      |                              | $X_{A}$ | {intervener <sub>A</sub> ,* <sup>A'</sup> } | $Y_A$ |
| c.      | *{intervener <sub>A</sub> }  | $X_A$   | {intervener <sub>A</sub> * <sup>A</sup> }   | $Y_A$ |
| d.      | *{intervener <sub>A</sub> ,} | $X_{A}$ | {intervener <sub>A</sub> ,* <sup>A'</sup> } | $Y_A$ |
| e.      | {intervener <sub>A'</sub> }  | $X_A$   | {intervener <sub>A</sub> * <sup>A</sup> }   | $Y_A$ |

The technical implementation put forward in Bošković (2011) is that, as shown in (40), movement of an element marked with a star only copies along that star if the movement of the starred element is of the same type as the star. Thus A-movement in (40a) uses the full copy (including the A-star) of the intervener. As a result, although the original copy of the intervening element is deleted at PF, hence removing the original intervention star, the higher copy of that element still includes that star, and pronunciation of that copy at PF fails the derivation. The same is the case in (40b) for A'-movement of an A'-marked copy. The scenario in (40c) is different, however: Since the intervener is marked with an A-star, but the further movement is A'-movement, the star is not copied along, but the intervener moves star-free to it's A'-landing site. At PF, after the lower copy is deleted, no illicit PF objects (no stars) remain and the structure is well-formed.<sup>14</sup>

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<sup>&</sup>lt;sup>14</sup> Although I will mostly be using the jargon of star-marking and selective copying of stars under movement to refer to violations of syntactic conditions, it should be kept in mind that this is only a notation used to express that

I will follow this system in this article. As for intervention effects, I assume a strict definition of c-command, that is one that does not distinguish between categories and segments. For instance, in the configuration below (as well as in multiple specifier configurations), a minimality violation arises for dependencies between X and Y (both Agree and Move dependencies). Thus, the intervener (if of the same A/A'-type as the dependency) is marked with a star.



The distinction between A- and A'-dependencies and positions is therefore crucial for the account to be developed, and for cases where the A/A'-distinction is not obvious, I will provide an explicit algorithm for determining the A/A'-status. In the following sections where I lay out my basic proposal, I only informally state certain A/A'-conventions I use, but in section 4.4, the assumptions are formalized.

### 4.2 PTT marking

In this section, I lay out the details of a feature and Agree(ment) account in which voice marking is established within the vP. The main distinction between voice marking languages such as Tagalog and languages like English which lack such marking lies in the features of v and the resulting dependencies v establishes with other elements. In both language types, v introduces an argument slot, and Merge of v (more concretely v) with an NP establishes an argument-of relation, which links that NP to the VP predicate and yields an interpretation where the NP is interpreted as the agent (or a similar flavor) of the VP. In voice marking languages, I argue, v establishes a second relation—the PTT relation. The PTT relation singles out one argument of the v+V predicate as prominent in that it is (re-)merged VP-externally. Importantly, the argument-of and PTT relations can both be established by the same argument (in which case the subject/agent is also the PTT argument), or they can be established by different arguments. Note again (cf. fn. 2) that prominence is not defined in terms of grammatical functions but strictly hierarchically. As we will see momentarily, the PTT relation allows one argument (potentially different from the subject) to occur in an A-specifier within the vP, giving the impression that this argument is a 'subject' in that it is in a similar configuration with v as the (true) external argument (the agent).

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certain syntactic elements do not meet the requirements of a particular configuration and that violations are conditional. As indicated in the text, the reasoning behind the selective copying of A vs. A' stars under movement is that certain elements are only illicit if realized at PF in a specific A/A' position or configuration. If a later step in the derivation changes that configuration, the earlier violation can be cancelled.

However in the current system, this  $\nu$ P-position of the PTT argument only affects the hierarchical configuration but not the argument structure properties of the arguments involved.

The technical implementation I propose for the above is that v is inserted with two types of features, φ-features and (what I will refer to as) a PTT feature. Both features need to be valued under Agree. Following Wurmbrand (To appear), I assume that φ-feature agreement on a head introducing an argument (such as v, which introduces an agent) translates into an argument-of relation semantically, which can only be established strictly locally (i.e., with the NP first merged with v). As for the PTT feature, given the restriction that only specific NPs can function as PTT arguments, I assume that the PTT feature is either identical to or parasitic on a specificity feature. Thus, all specific NPs have the potential to license a PTT feature on v, but since there is only one PTT feature on v, only one XP can establish the PTT relation in any given sentence (see Rackowski 2002 and R&R 2005 for details on which argument 'wins' out in case of multiple objects). Importantly, I assume that in addition to argument structure licensing and Case valuation, PTT licensing/valuation is also an A-property, and the argument establishing the PTT relation with v must be in an A-position. For transparency, I label the features on both v and NP simply as PTT feature. Lastly, the version of Agree I follow is the Reverse Agree definition in (41), which entails that unvalued features on a head can be valued by an XP in its specifier but not an XP within the complement of that head.

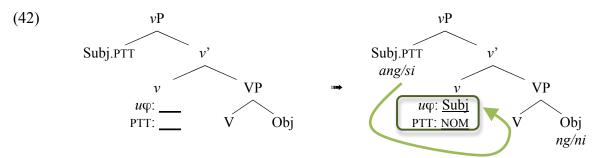
(41) A feature F:  $\underline{\phantom{a}}$  on  $\alpha$  is valued by a feature F: val on  $\beta$ , iff [Wurmbrand To appear]

- i.  $\beta$  c-commands  $\alpha$  AND
- ii.  $\alpha$  is accessible to  $\beta$ . [accessible: not spelled-out]
- iii.  $\alpha$  does not value {a feature of  $\beta$ }/{a feature F of  $\beta$ }.

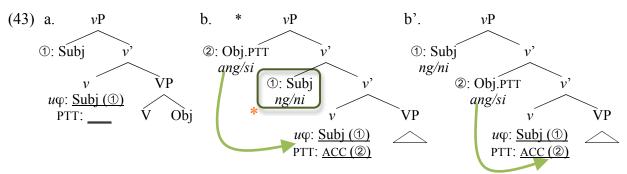
Equipped with these assumptions, let us see how PTT marking is achieved in this system. For cases in which the subject is the PTT argument, only one Merge operation is needed to satisfy both properties of v. As shown in (42), the subject NP merges with v and values both of its features. This yields NOM marking on the verb and PTT marking on the subject (and non-PTT marking on all other arguments). Furthermore, the Case of the object is valued in situ, via Agree with v. A standard assumption is that the unvalued Case feature of an object needs to be licensed by v, which is straightforwardly achieved under Reverse Agree without requiring any further Case-related mechanisms or movement. Note again that the PTT features on v are not actual Case features corresponding to the case of the PTT argument, but the common shorthand for the type of argument v agrees with. Like Rackowski (2002) and R&R (2005), I assume that Case marking and PTT marking are not the same relation: T Case-values the subject, and v Case-values the object. PTT-marking is independent of that—that is, an object agreeing with v for Case does not necessarily agree with v regarding the PTT property. <sup>15</sup>

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 $<sup>^{15}</sup>$  Aldridge (2004, 2006, 2007) argues that in v.NoM constructions, v cannot license structural Case on the object but the object receives oblique Case from the verb. The main evidence comes from ECM constructions, which are only possible when the matrix predicate shows object agreement (i.e., the matrix verb is marked v.ACC and not v.NoM). While these facts are certainly compatible with an intransitive antipassive analysis as proposed by Aldridge, I believe they do not necessitate such an analysis. As we will see below, in constructions in which the subject is the PTT argument, the object cannot undergo A-movement—A-Merge of the object in Spec,vP is only possible when the object values the PTT feature of v. Without going into details about the technical implementation, the lack of ECM with matrix v.NoM verbs can then be derived from the impossibility of A-movement to Spec,vP in such cases. If it is



In (43), the vP structure for cases in which the object is the PTT argument is given. As indicated by the two step derivation and the circled numbers, the subject NP merges with v first and values its  $\varphi$ -features, thereby establishing the correct argument structure relation between the subject, v, and the VP (cf. (43a)). At this point it may seem that we have two options—the object moves (vie internal Merge) above the subject or tucks-in below the subject. As illustrated in (43b), the former option faces certain locality problems (recall that PTT valuation is an A-dependency): first, the subject intervenes in the Agree relation between the object and v, and second, the subject also causes a minimality violation for movement of the object across the subject. I therefore assume that the correct derivation is the one depicted in (43b'), that is, a derivation where the object tucks-in below the subject and then values the PTT feature of v.



There is an alternative derivation for PTT object constructions, which I reject here, namely a derivation in which the object merges first, valuing v's PTT feature, followed by tucking-in of the subject. If the subject relation is established with the first NP v merges, as I assume here, this derivation would be excluded. Furthermore, under an OBJECT.PTT » SUBJECT base structure, the object would always intervene in the Agree relation between the subject and T (which is necessary to value the subject's Case), and a minimality/intervention violation (an A-star on the object in the current system) would arise in object PTT constructions. Although this violation could be rescued by pronunciation of the lower copy of the object at PF, it would be somewhat mysterious that the canonical syntactic order is never reflected in the way the structure is linearized (see Billings 2005 for a similar point). As shown in (44), word order is (fairly) free in Tagalog when the verb agrees with the subject. All orders in (44) are possible and convey the same meaning. However, in a neutral context, the order in (44a) is the most natural one.

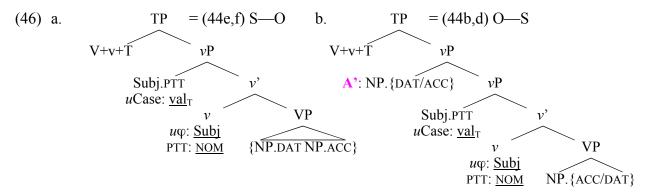
assumed that (for whatever reasons) ECM requires (overt or covert) A-movement of the embedded subject to matrix Spec, $\nu$ P, such movement is only possible when the moved subject can value the PTT feature of the matrix  $\nu$ , or in other words when the matrix subject does not value the PTT feature of the matrix  $\nu$ . In this paper, I leave ECM constructions aside since the distribution of ECM is rather complex in Tagalog, showing yet to be understood differences between different types of matrix verbs (see Kroeger 1993).

| (44) | a. | Nagbigay    | ng libro    | sa babae   | ang lalaki                      |
|------|----|-------------|-------------|------------|---------------------------------|
|      |    | gave.NOM    | DET book    | DAT woman  | PTT man                         |
|      |    | The man gav | e the woman | a book.'   | [Schachter and Otanes 1972: 83] |
|      | b. | Nagbigay    | ng libro    | ang lalaki | sa babae                        |
|      | c. | Nagbigay    | sa babae    | ng libro   | ang lalaki                      |
|      | d. | Nagbigay    | sa babae    | ang lalaki | ng libro                        |
|      | e. | Nagbigay    | ang lalaki  | sa babae   | ng libro                        |
|      | f. | Nagbigay    | ang lalaki  | sa babae   | ng libro                        |

When the verb agrees with the object, however, the order object.PTT » subject.NON-PTT is highly dispreferred (Schachter and Otanes 1972, Kroeger 1993, Billings 2003, 2005). Billings (2005: 307) notes "The order in (4b) [=(45b) here, SW] is not unacceptable, just very marked. (It can be used, for example, to contrastively focus *ni=Juan*.)"

(45) a. Sinulat ni Juan ang liham PERF.write.ACC DET Juan PTT letter 'Juan wrote the letter.' [Kroeger 1993: 111, (4a)] b. ?Sinulat ang liham ni Juan PERF.write.ACC PTT letter **DET Juan** 'Juan wrote the letter.' [Kroeger 1993: 111, (4b)]

In contrast to the Agree proposals in Aldridge (2004, 2006, 2007) and Rackowski (2002) and R&R (2005), the difference in word order between (44) and (45) is reflected in the structures proposed here. In (44) the basic structure is (42), which, following Richards (1993), could be altered by scrambling of one or both of the objects. Since NON-PTT objects satisfy all their Aproperties in situ (they establish an argument-of relation with the verb or some applicative head and object Case is valued by  $\nu$  under Agree in situ), any further movement should be A'movement (see Richards 1993 for arguments from binding and weak cross-over that this is indeed the case). A'-scrambling structures are illustrated in (46) for four of the word orders in (44) (the structures for (44a,c) are not given—those would be identical to (46b) but with both objects A'-moved to  $\nu$ P-adjoined position).



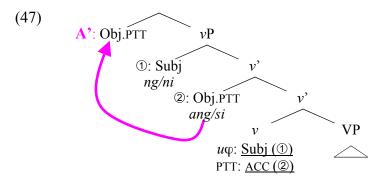
Note that A'-scrambling does not cause any minimality or intervention effects—neither the

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<sup>&</sup>lt;sup>16</sup> In section 4.4, I provide further details about the A/A'-distinction and an algorithm for determining the A/A'-status of different movement operations and positions.

movement operation nor the T»Subject Case dependency are disturbed by intervening A'-elements, and thus no violations occur.

In (43), on the other hand, the order corresponding to the syntactic hierarchy would be the SUBJECT » OBJECT order, which is indeed the unmarked order in such sentences, as evidenced by (45). A question arising regarding the examples in (45) is why reordering via scrambling as in (47) is more marked, perhaps even impossible for certain speakers and in certain contexts.



The crucial difference lies in what elements undergo movement in (46b) vs. (47)). To derive the OBJECT » SUBJECT word order in (43), the PTT argument must undergo movement. Since this argument is already marked as the most prominent argument in its PTT position (Spec, $\nu$ P), which in many accounts corresponds to the topic or focus of the sentence (see, for instance, Pearson 2005 who argues convincingly that PTT arguments behave like topics), it is unlikely that movement is triggered by an information structural need of the PTT argument. Thus, movement of the object is neither driven by any obvious syntactic feature in (47), nor by an information structure property that cannot be established in the PTT position in Spec, $\nu$ P already (recall also that only specific arguments can function as PTT arguments, which, following the standard claim in the Germanic object shift literature, Rackowski 2002 and R&R 2005 crucially rely on to motivate movement of the PTT argument to the  $\nu$ P domain). I preliminarily propose that the purpose of movement of a PTT argument outside the  $\nu$ P domain is not driven by a property of the PTT argument, but rather by the need to 'defocus' the PTT argument and give another argument more information structure prominence.

The basic idea is that there is no syntactic difference between the A'-movement operations indicated in (46b) and (47)—both configurations are syntactically licensed—but that a difference arises at PF when the structures are linearized. A general tendency of word order in Tagalog is that focused elements appear right-peripherally (or in a designated topic/focus position in the CP domain). Although focus movement to the left periphery is possible, I do not assume that this movement is obligatory, but focus can also be assigned and computed vP-internally. I do propose, however, that linearization at PF, specifically the operation of copy choice, is sensitive to the focus rule in (48a). The effect of this rule is illustrated in (48b,c). The unmarked/default focus in Tagalog is always the PTT argument. This is reflected in the fact that the most natural word order in a neutral context in (44) is (44a), that is the order in which the PTT argument is sentence final. For the moved object in (48b) (=(46b)) there are, in principle, two PF-choices, but the focus rule privileges pronouncing the higher copy of the moved element since it is to the left of the focus element, and the PTT focus hence ends up to the right. Note again that this rule is not a rule that triggers focus movement or forces the focus to be right peripherally otherwise. It only plays a role locally in resolving copy choice. For the cases in (44) in which no scrambling has applied, the PTT argument is not forced to occur at the end of the sentence. If there is no movement, there are no copies, and PF simply realizes the structure as generated in syntax (the subject would be the first element in the  $\nu$ P, hence, despite being the focus precedes both objects). If one NP scrambles to the left of the PTT subject, that NP is linearized to the left of the focus PTT subject, but the subject still precedes the second argument.

In (48c) (=(47)), the situation is different. Moving the focus element to the left of the subject puts it further away from the preferred focus position. If the focus remains neutrally on the PTT argument, pronouncing the higher copy of the moved object would violate (48a), and instead pronunciation of the lower copy would be triggered (which would be indistinguishable from a structure in which no movement has applied). The only way the higher copy of a moved PTT argument can be pronounced is if another element becomes the focus. As shown in (48c), if the subject is taken to be the focus, then the best PF choice for the moved object is the higher copy, yielding the PTT.OBJECT » SUBJECT word order in (45b). This approach now accounts for the observation that the word order PTT.OBJECT » SUBJECT is not ungrammatical (again, nothing goes wrong syntactically in (47)), but it is marked since it requires a focus shift, which speakers may not have in mind when they judge these examples. But as stated by Billings, such examples are possible in exactly the case the subject is contrastively focused.

(48) a. PF linearization rule: Pronounce a Focus as far right as possible within the  $\nu$ P.

Having established the basic way voice marking is derived in Tagalog, I now turn to the PTT extraction restriction.

## 4.3 The PTT extraction restriction in simple clauses

### 4.3.1 PTT matching in TP

As we have seen in examples (31), repeated as (49), extraction is only possible in Tagalog if the extracted argument matches the voice marking on the verb (but see section 4.3.2 for some special cases).

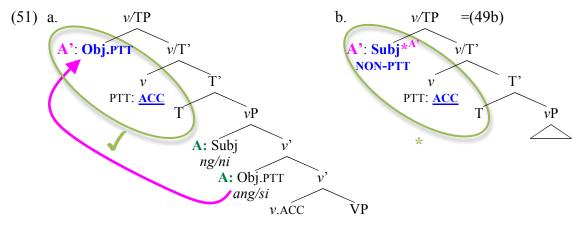
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(49) a.
          Sino
                                            ng kotse mo?
                            nagnakaw
                   ang
                            steal.PERF.NOM DET car 2.POSS
          who
                   ANG
          'Who stole your car?'
                                                                 [Rackowski 2002: 30, (33a)]
         *Sino
     b.
                   ang
                            ninakaw
                                            ang kotse mo?
                            steal.PERF.ACC PTT car 2.POSS
          who
                   ANG
          'Who stole your car?'
                                                                 [Rackowski 2002: 30, (33b)]
                            binili
                                            ni Juan?
     c.
          Ano
                   ang
                            bought.ACC
          what
                   ANG
                                            DET Juan
          'What is the thing that Juan bought?'
                                                                 [Nakamura 2000: 394, (7b)]
         *Sino
     d.
                                            ang damit?
                   ang
                            binili
                            bought.ACC
          who
                   ANG
                                            PTT dress
          'Who is the one who bought the dress?'
                                                                 [Nakamura 2000: 394, (7a)]
```

In the structures I proposed for v.NOM and v.ACC constructions, the subject is the top element in the vP in both voice types. This is a crucial difference to the system proposed in Rackowski (2002) and R&R (2005) in which only the higher element in the vP can Agree with T, be marked as the PTT argument, and as a result extract. A further difference is that I assume that vP is not a phase in Tagalog, but that v+V-to-T movement carries v's phasehood up to TP. As a result, extraction (e.g., movement to Spec,CP) has to pass through Spec,TP first. This step, I propose, is where the PTT extraction restriction arises. The specific restriction I assume is stated in (50). The PTT matching requirement demands that the PTT value of an XP in Spec,TP (e.g., [si Juan]\_Subject would be a PTT subject) must not clash with the PTT value of v+T (i.e., a PTT subject would be compatible with v+T.NOM, but clash with v+T.ACC). Two values clash if both are specified and have different values. Since unspecified feature values never clash, the matching requirement in (50) also extends to cases in which, for various lexical reasons, either the XP or T lack a PTT value altogether. If one of the items lacks PTT marking, (50) is vacuously met independently of the value of the other item. Examples illustrating this in both directions will be given in section 4.3.2.

### (50) PTT matching requirement

If the PTT value of an XP in Spec, TP clashes with the PTT value of  $\nu$ +T, XP is assigned \*A if XP is in an A-position, or \*A' if XP is in an A'-position.

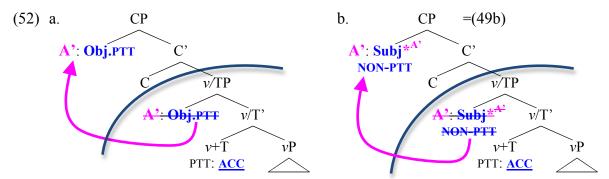
The diagrams in (51) illustrate the basic workings of (50). Although it is not essential for the analysis here, I assume that head movement targets the root, and the two heads then jointly project in that the projection of the two heads (labeled here as v/T) includes the features of both elements (see for instance Pesetsky and Torrego 2001, 2004, 2007, Donati 2000, Gallego 2005, 2010). Note that if movement to Spec, TP is A'-movement, as depicted in (51) and motivated below, movement of the object across the subject is unproblematic from a minimality perspective—no A'-element is crossed, hence no locality violation arises. The same would be the case in v. NOM constructions, in which the object moves to Spec, TP from its VP-internal position, crossing the A-position of the subject, but no A'-elements (there would be a problem regarding PTT matching in Spec, TP, but the movement to Spec, TP is unproblematic).



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 $<sup>^{17}</sup>$  The PTT matching requirement could be related to an additional PTT feature on T, which must be valued jointly by the moved v head and any XP in Spec,TP. To keep the discussion more transparent, I won't add more features to the structures but simply work with the more descriptive matching requirement in (50).

In (52), the continuing derivations are given (I give *v* and T together in the trees from now on). Since movement to Spec,CP is also A'-movement, the A'-star acquired in Spec,TP is carried along, and pronunciation of the higher copy in Spec,CP at PF is impossible in (52b). <sup>18</sup> A crucial part of the account thus rests on the claim that the first step of movement, movement to Spec,TP, which must occur because TP is a phase, is A'-movement. In the \*-marking system proposed in Bošković (2011), which I have adopted here, an offending star is only copied and carried along if the next step movement is of the same type as the A/A'-status of the star: if the PTT star were an A-star, further A'-movement to Spec,CP would not copy the A-star, and pronunciation of the higher copy of the moved element at PF would not cause any problem. Thus, for the system to rule out extraction of NON-PTT elements, the first step of movement, movement to Spec,TP must also be A'-movement already. This is exactly what I argue is the case.



While certain projections are clearly classified as A (Spec,vP) or A'-positions (Spec,CP), the

Another similar matching requirement seems to be in effect when both T and v are realized. As shown in i., verbs agreeing with a plural PTT subject can occur with (optional) plural agreement. I assume that this agreement is the result of  $\varphi$ -features on T, which are valued by v+V (recall that in VSO languages like Tagalog, the EPP property of T is satisfied by verb movement à la Alexiadou and Anagnostopoulou 1998, which in the system here corresponds to  $\varphi$ -feature valuation of T by v). Thus, v and T both realize features of the subject. When the verb PTT-agrees with the object, both subject agreement (cf. ii.) and object agreement (cf. iii) are impossible. To exclude ii., consider the features that are morphologically realized on V+v+T: the plural morpheme si realizes  $\varphi$ -features of T which ultimately come from the subject, but the PTT morpheme in realizes the PTT feature of v which comes from the object. A verb form such as si-ni-basa in ii. hence involves the overt realization of features of both arguments v agrees with, and I tentatively propose that this leads to a PF-clash: a single V+v+T head can only express the features of one argument in Tagalog (that is, there is a morphological filter which prevents clashing morphemes on one verb). Furthermore, since the  $\varphi$ -features of T are valued by the  $\varphi$ -features of v (which in turn got valued by the subject), the impossibility of iii. follows (T is always valued, indirectly, by the subject and cannot express features of the object).

Nag-si-basa i. ang mga bata ng liham. NOM.ASP-PL-read PTT PL child **DET** letter 'The children read a letter.' [Aldridge 2006: 4, (8a)] ii. \*Si-ni-basa ng mga bata ang liham. PL-ACC.ASP-read DET PL child PTT letter 'The children read the letter.' [Aldridge 2006: 4, (10a)] \*Si-ni-basa iii. ng bata mga liham. ang PL-ACC.ASP-read DET child PTT PLletter 'The child read the letters.' [Aldridge 2006: 4, (10b)] status of TP in languages which do not involve subject movement to Spec,TP is not immediately obvious. I discuss this issue in detail in section 4.4. For the current illustration, we can simply assume that the A/A'-status of Spec,TP is determined by the (ultimate) purpose of the XP moving through this position: If the XP stops-over on its way to an A'-position (e.g., Spec,CP as in wh-movement), Spec,TP is an A'-position (and movement to this position is A'-movement). If the XP stops-over on its way to a position where it can have its Case valued, Spec,TP is an A-position (and movement to this position is A-movement). This descriptive 'instruction' for determining the A/A'-status of Spec,TP may give the impression of *look ahead*. However, once the A/A'-specification is properly formalized, which I will do in section 4.4, we will see that there is no issue of *look ahead*. <sup>19</sup>

# 4.3.2 Apparent exceptions to the PTT extraction restriction

Although the PTT extraction restriction is quite rigid when both the argument and the verb involve PTT marking, there are (apparent) exceptions. Specifically, when either the verb or the moved XP are not specified for a PTT value, extraction is possible.

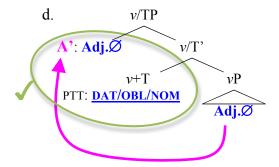
The first case involves XPs that do not agree (i.e., they show the same form independently of the PTT value on the verb). As R&R (2005) note, PTT agreement is only possible for NPs and non-NPs do not show PTT agreement. Nevertheless, non-NPs can extract, as shown in (53a-c). Note that the verb does show voice agreement in these cases, however, whatever PTT value is chosen, extraction of the adjunct is possible. The structure for these cases is given in (53d). Adjuncts being unspecified for a PTT value do not clash with any of the PTT values of v+T, hence the PTT matching requirement in (50) is met, no star is assigned, and extraction is therefore possible.

- (53) a. Kailan <u>b-in-igy-an</u> **ng lalaki** ng bulaklak when give-ASP-give-DAT DET man DET flower 'When did the man give a flower to the water buffalo?'
  - Kailan <u>i-b-in-igay</u> **ng lalaki** ang bulaklak when OBL-give-ASP-give DET man PTT flower 'When did the man give the flower to the water buffalo?'
  - c. Kailan <u>n-agbigay</u> **ang lalaki** ng bulaklak when NOM-give-ASP-give PTT man DET flower 'When did the man give a flower to the water buffalo?'

ang kalabaw? PTT water.buffalo [R&R 2005:588, (54a)]

sa kalabaw? DAT water.buffalo [R&R 2005:588, (54b)]

sa kalabaw? DAT water.buffalo [R&R 2005:588, (54c)]



b.

<sup>&</sup>lt;sup>19</sup> I do assume, however, that movement of an XP to the edge of a phase is not triggered by any 'edge' feature but allowed by a *Last Resort* condition such as the one given in Bošković (2007: 610): X undergoes movement iff without the movement, the structure will crash.

The next case shows the opposite properties: the verb is unspecified for a PTT value, but the arguments do involve PTT marking. This is the case in certain comitative and comparative constructions such as (54a). Crucially, exactly as predicted by the PTT matching requirement in (50), extraction is possible of both the PTT and the NON-PTT argument (cf. (54b,c)). The structure in (54d) illustrates this: since the verb is unspecified for a PTT value (I notate this as PTT:Ø, but a better way to formalize this would be to assume that there is no PTT feature at all in these constructions), neither value (PTT or NON-PTT) of an NP clashes with the verb's feature, and hence no star is assigned to either type of argument in Spec,TP, crucially no star is assigned to NON-PTT arguments in these constructions. As predicted, extraction is therefore possible.

(54) a. Kasama ni Juan ang tao be.with DET Juan PTT man 'Juan is with the man.'

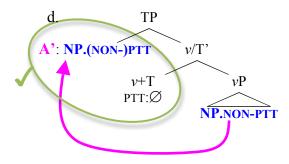
[Nakamura 2000: 397, (18)]

b. Sino ang <u>kasama</u> ang tao who ANG be.with PTT man 'Who is the one that is with the man?'

[Nakamura 2000: 397, (19a)]

c. Sino ang <u>kasama</u> ni Juan who ANG be.with DET Juan 'Who is the one that Juan is with?'

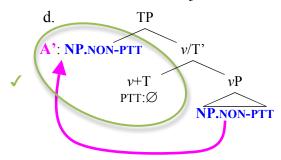
[Nakamura 2000: 397, (19b)]



Finally, there are constructions which lack PTT marking on both the verb and the arguments. This is the case in the so-called *recent perfective* construction (Schachter and Otanes 1972, Kroeger 1993, Rackowski 2002, among others). As summarized in Rackowski (2002: 93), in this construction, the sentence receives the interpretation of a recent completion of action, the verb is marked with ka and the aspect morpheme is reduplicated, there is no PTT argument (no ang/si NP), and the verb shows no voice marking. An example is given in (55a). As expected, extraction is again possible of both arguments, as shown in (55b,c) (though to avoid ambiguity, subject extraction is typically preferred). Since the verb has no PTT value to match, the NON-PTT forms of the arguments do not clash with v+T, and no stars are assigned (cf. (55d)).

(55) a. Kakakain lamang ng bata ng mangga
REC.PERF.eat only DET child DET mango
'The child has just eaten a/the mango.' [Kroeger 1993: 53, (61a)]

b. Sino ang kakakain lang ng mangga who ANG REC.PERF.eat only DET mango 'Who has just eaten a/the mango?' [Kroeger 1993: 53, (62a)] c. Ano ang kakakain lang ni Maria
who ANG REC.PERF.eat only DET Maria
'What has Maria just eaten?' [Kroeger 1993: 54, (63a)]



In the following final sub-section of the general properties of extraction and PTT marking in Tagalog I turn to clitic constructions. Since the distribution of clitics plays a crucial role in the structure of infinitives, as we have seen in part already in sections 2.2 and 3.3, it is necessary to lay out the basic structure and account of clitic constructions I adopt for Tagalog here.

### 4.3.3 Clitics

Tagalog clitics are second position clitics. They typically appear after the verb (in V-initial sentences), or after certain items, such as negation, that occur in pre-verbal position. The exact definition of second position is orthogonal to the discussion here (see Schachter and Otanes 1972, Kroeger 1993, among many others). The only important point for our purpose is that, as argued in detail by Kroeger (1993), second position is defined within IP/TP and CP-material is not included for calculating what counts as second. I take this to show that clitics appear in the highest position of the TP domain—specifically, I assume, following Sportiche (1996), that there is a clitic projection above the TP, and that this projection is part of the extended TP domain and does not belong to the CP domain. This will be important for determining the phases in a sentence with a clitic (projection).

In addition to being second position items, we can note three other properties of clitics that are relevant for the further discussion on infinitives.<sup>20</sup> In section 2.2, we have already seen that clitics behave differently from full NPs in that, for instance, raising of NON-PTT subjects is not possible of full NPs but it is possible if the subject is a clitic. The relevant examples from (18) are repeated here.

(56) a. \* <u>Dapat</u> si/ni Miguel na <u>basahin</u> should PTT/DET Miguel C/L read.ACC 'Miguel should read the newspaper.'

ang diyario ang newspaper [Kroeger 1993: 171, (7); Dialect A]

ang masamang batang iyan

b. <u>Dapat</u> **niya** ng <u>paluin</u> ought 3.SG.NON-PTT C/L spank.ACC 'He should spank that naughty child.'

PTT bad child that [Kroeger 1993: 179, (26b)]

<sup>&</sup>lt;sup>20</sup> The properties of clitics I discuss here are by no means to be seen as an exhaustive list of properties. There are several other intricate issues arising regarding clitics, which I cannot cover here. I refer the reader to the works by L. Billings, which offer in-depth analyses and comparisons with other languages.

In simple clauses, too, a difference between extraction and clitic movement arises. If clitic placement involves a component of movement, as I will assume here, this movement is not subject to the PTT extraction restriction. Both PTT clitics, (57a), and NON-PTT clitics, (57b), can be placed in the clitic position above TP. Thus, the PTT extraction restriction does not seem to be in effect for clitics.

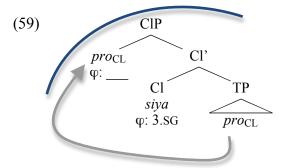
| (57) a. | Sumulat<br>PERF.write.NOM<br>'She/He wrote a | siya 3.SG.PTT letter right away            | kaagad<br>right.away | ng liham<br>DET letter  | [Billings 2005: 309, (7a)] |
|---------|--|--|----------------------|-------------------------|----------------------------|
| b.      | Sinulat PERF.write.ACC 'She/He wrote a       | <i>niya</i> 3.SG.NON-PTT letter right away | kaagad<br>right.away | ang liham<br>PTT letter | [Billings 2005: 309, (7b)] |

Fianlly, while it is possible to express both subject and object by a clitic when the verb agrees with the object (cf. (58a,b)), two clitics are impossible when the verb agrees with the subject (cf. (58c,d)). In (58b), the same markedness is found as was observed in constructions with two full NPs where a PTT object precedes a NON-PTT subject (see (45b)).

| (58) a. | Nakita PERF.ABIL.see.ACC  | <i>ba</i><br>yes/no                    | <i>nila</i><br>3.pl.non-ptt          | <i>ako?</i><br>1.SG.PTT  |                                 |
|---------|---|--|--------------------------------------|--------------------------|---------------------------------|
|         | 'Did they see me?'  |  |                                      |                          | [Billings 2005: 314, (17a)]     |
| b.      | ? <u>Nakita</u> PERF.ABIL.see.ACC 'Did they see me?'                  | <i>ba</i><br>yes/no                    | <i>ako</i><br>1.SG.PTT               | <i>nila?</i> 3.PL.NON-I  | PTT [Billings 2005: 314, (17b)] |
|         | ž   | 1                                      | •1                                   | •1 0                     | [Diffings 2003. 314, (170)]     |
| C.      | * <u>Pumatay</u><br>PERF.kill.NOM                                     | <i>ba</i><br>yes/no                    | <i>nila</i><br>3.PL.NON <b>-</b> PTT | <i>sila?</i><br>3.pl.ptt |                                 |
|         | 'Did they <sub>i</sub> kill them                                      | 2                                      |                                      |                          | [Billings 2005: 314, (16a)]     |
| d.      | * <u>Pumatay</u><br>PERF.kill.NOM<br>'Did they <sub>i</sub> kill them | <i>ba</i><br>yes/no<br><sub>j</sub> ?' | <i>sila</i> 3.PL.PTT                 | nila?<br>3.PL.NON-I      | PTT [Billings 2005: 314, (16b)] |

I propose that these properties of Tagalog clitics (as well as further peculiarities of the distribution of clitics in infinitives, to which I turn in the section 5) can be accounted for under Sportiche's (1996) analysis of clitics and the phrase structure for Tagalog I proposed here. Sportiche suggests that clitics are essentially agreement morphemes projected as functional heads as part of the clausal spine. The clitic is base-generated as the functional head in the TP-domain, and to be associated with the correct theta-role, an argument is moved from the theta-position to the specifier of the clitic projection. The argument associating with the clitic can be overt, which is the case in clitic doubling constructions, or a covert element such as pro. I assume that the latter is the case in Tagalog, specifically, in clitic constructions, a pro<sub>CL</sub> is generated in an argument position und undergoes movement to the specifier of the clitic projection. The agreement nature of the clitic (the head of Cl) is reflected in the assumption that the clitic (the actual lexical item) is inserted with specified  $\varphi$ -features. The argument pro<sub>CL</sub>, on the other hand, is inserted in argument position where it establishes an argument-of relation with the relevant verbal head, how-

ever, I assume that  $pro_{CL}$  is underspecified for  $\varphi$ -features. The  $\varphi$ -features thus need to be acquired, which triggers movement of  $pro_{CL}$  to Spec,CIP where it then Agrees with the clitic.<sup>21</sup> The basic structure is given in (59).



The CIP is tightly connect to TP and not part of the CP-domain of the clause. Following Sportiche's reasoning, CIP is similar to an agreement projection, which is reflected in the features of the clitic head in the structure proposed here. Sportiche also assumes that clitics (or rather the  $pro_{CL}$ ) can be A- or A'-elements. In a structure such as (59), this finds some motivation. There are two functions that are satisfied in CIP: a form of agreement, which associates an argument with  $\varphi$ -features, and a form of operator binding, which associates an argument with a thetaposition via a binding relation with an operator, which I assume is  $pro_{CL}$ . I therefore assume that CIP closes off the TP and due to its mixed A- and A'-properties can be an A- or an A'-position. I will show below that the assumption that CIPs in Tagalog have mixed A- and A'-properties allows us to derive the distribution of multiple clitics in a strict locality account.

Considering CIP as part of the TP-domain has several advantages. First, it delineates the domain in which the clitic has to occur as the second element. In the typical case, the verb appears as the first element, either via V+v+T-to-Cl movement or via a PF clitic placement rule which linearizes clitics as the second element within the CIP. Furthermore, the claim that CIP is part of the TP-domain allows extending the TP phase to ClP, since ClP is the top projection of the TP-domain. Following the phase extension approach adopted here, V-movement would go up to Cl (if there is a clitic present) and hence the ClP would be the extended phase of vP rather than TP. Despite CIP being part of the TP-domain, since the clitic is an agreement head (more like AgrSP in the traditional split IP), the featural composition of the Cl head is different from T. In particular, I assume that the Cl head only involves phi-features and does not come with a PTT feature (cf. fn. 17 where I suggested that the PTT matching requirement in TP is related to a PTT feature present in T as well as in v). The assumption that the TP phase is extended to ClP and that Cl does not have any PTT feature or requirement now explains why movement of procl to Spec, CIP is possible for PTT as well as NON-PTT arguments. Phase extension from TP to CIP entails that in clauses with a clitic, movement of the procl associated with the clitic does not go through Spec, TP but can go directly to Spec, CIP (provided there are no relevant interveners). Thus, the locus of the PTT extraction restriction is circumvented, and hence this restriction does not hold for clitics, as shown by the examples in (57).

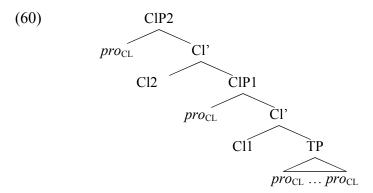
Treating CIP as the top projection of the TP domain also allows us to express the relation

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 $<sup>^{21}</sup>$  To keep to the Reverse Agree mechanism, Agree would be established between  $pro_{CL}$  and Cl' (which includes the same features as the Cl head).

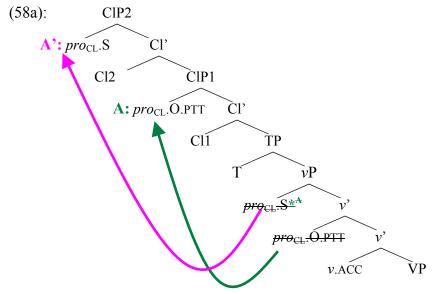
between clitics and tense/finiteness. As we have seen in section 2.2, clitic climbing is impossible out of finite clauses in Tagalog. Put differently, if there is a clitic associated with an argument (proc.) in an embedded finite clauses, the CIP must be projected in the embedded clause and cannot be 'postponed' to the matrix clause. In infinitives, on the other hand, the CIP typically occurs on top of the matrix TP (again, a finite/tensed TP). This points to a selectional relation between the Cl head and TP which is sensitive to tense or finiteness. At this point, I cannot spell out the exact relation between clitics and tense/finiteness, mostly because these notions are not well-defined for a language like Tagalog. Tagalog does not have clear tense or finiteness marking, but temporal relations are expressed via aspectual morphemes such as the perfect marker in (17b), which can be taken to be responsible for creating a TP-domain that requires the CIP to be within the embedded clause. Although I have followed Kroeger (1993) and Mercado (2003) in distinguishing between finite clauses and infinitives, it is difficult to pin down what specific property is responsible for these notions and as a result for the distribution of CIPs. Given that CIPs are possible at least in certain infinitives (cf. (20a)) this may suggest that the relevant property is semantic tense rather than finiteness (see Wurmbrand, To appear for a detailed study of tense and aspect in English infinitives). Further research is necessary to tease apart these notions and determine what exactly the relation between clitics and tense and/or finiteness is.

Before turning to the behavior of clitics in and out of infinitives, for which I will offer a detailed account in section 5, I will show how the structures proposed so far account for the patterns with two clitics observed in (58). If a sentence contains two clitics, given that clitics correspond to functional heads, there have to be two CIP (see also Sportiche's 1996). This has one immediate consequence—there cannot be any tucking-in movement. Structure is build cyclically, which means that the steps of the derivation in (60) are as follows: first, the lower clitic (Cl1) merges with TP; after that, movement of the associated  $pro_{CL}$  to Spec,CIP1 occurs; CIP1 then merges with the higher clitic, Cl2, and movement of the second  $pro_{CL}$  argument to Spec,CIP2 occurs.



Since in constructions with two clitics the higher  $pro_{CL}$  must move across the lower  $pro_{CL}$ , it follows that the two ClPs cannot be both A-projections or both A'-projections without the lower element creating an intervention effect. The derivation for (58a) is given below. The first step of movement is movement of the object  $pro_{CL}$  to the specifier of the first ClP (ClP1). This movement is A-movement (indicated by a green arrow), hence the subject in Spec,vP is marked with an A-star. The second step of movement is movement of the subject  $pro_{CL}$  to the specifier of the higher ClP2. Since this movement is A'-movement (indicated by a pink arrow), the A-star

is not copied and  $pro_{CL}$  in the landing site occurs without any offending \*. The lower copy of the subject  $pro_{CL}$  has a star, but since this copy is deleted at PF, no violation arises.<sup>22</sup> Furthermore, since the object has undergone A-movement, A'-movement of the subject across the object is possible since A-elements do not interfere with A'-movement.



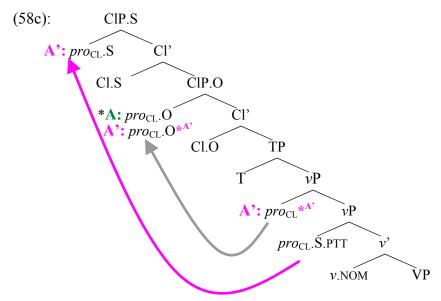
The crucial step in this derivation is thus that the object  $pro_{CL}$  undergoes A-movement, which is possible since the object, being the PTT argument, is merged in Spec, vP. To derive the (marked) object » subject order in (58b), I assume that the object clitic head undergoes head-movement to the higher clitic. As in case of full NPs, movement of a PTT element across a NON-PTT subject, this movement is marked and requires special contexts to make it felicitous.<sup>23</sup>

Let us now turn to constructions in which the PTT argument is the subject. One claim that is made in basically all works on clitics in Tagalog is that clitics (like pronouns) are definite/specific and hence must undergo obligatory (object) shift (see among many others Rackowski 2002, Billings 2005 et seq.). This yields the structure below for (58c). Assuming that the ClPs are ordered—the higher clitic corresponds to the subject, the lower clitic to the object (see fn. 23), there is no way to derive a double clitic construction in subjec PTT cases. Movement of the object to Spec,ClP cannot be A-movement, since the first step of object movement has to be A'-movement (see section 4.2), and A-movement after A'-movement is excluded as *improper movement* (see section 4.4 for a way to implement the *improper movement* restriction in the locality approach here). If movement of object *pro*<sub>CL</sub> is A'-movement, however, movement of the subject *pro*<sub>CL</sub> across the object *pro*<sub>CL</sub> yields minimality violations: both copies of *pro*<sub>CL</sub>. O are

<sup>&</sup>lt;sup>22</sup> One may wonder why elements like PRO/*pro* ever create a PF violation, given that they are not 'pronounced' at PF. The account here points to the direction that, like full NPs, silent arguments are visible at PF, at least up to the stage where copy choice is made.

<sup>&</sup>lt;sup>23</sup> One may wonder about an alternative derivation in which the subject undergoes A-movement (to the lower CIP), and the object A'-movement to the higher CIP. This would require that the clitic heads are merged in the opposite order—the subject clitic would merge with TP first, followed by merge of the object clitic with the subject CIP. I assume that this is impossible. Currently I can only relate this to a selectional restriction of clitics, but it is obvious that this restriction mirrors the generation of argument structure, hence the goal is to derive the Merge order from the A-properties involved in CIPs.

crossed (recall that there is no tucking-in movement in clitic constructions since each clitic projects its own projection), and hence assigned A'-stars, and the structure is excluded at FP.



In the next section, I return to the claims made regarding A/A'-movement and propose (the beginning of) a system that derives some of the assumptions.

#### 4.4 A vs. A'-movement

Since the A/A'-distinction plays an essential role in the \*-marking approach and the analysis proposed here, I first provide a system of A/A'-properties and an algorithm for determining whether the movements and/or dependencies involved meet the required specifications. To begin with, I assume the A/A'-specifications in (61) for the dependencies used in this article. While the general A/A' assignments are fairly uncontroversial (e.g., that structural Case is an Adependency whereas wh-movement is an A'-dependency), the implementation of these specifications in the system proposed here is new and has certain advantages. One crucial part of the specifications in (61) is that A/A'-distinctions are attributed to the elements that require specific features to be satisfied. With the exception of the PTT feature I introduced for voice marking languages, the features in (61), are standard features assumed in the relations specified (Case for NPs, introducing an argument for v, a  $\varphi$ -dependency in control, operator features such as whetc.). In other words, satisfaction of specific features requires the configuration specified. For instance, in (61a), an NP with an unvalued Case feature requires valuation of that Case feature, and since this is an A-dependency, the NP needs to be in an A-position. Similarly, v requires an argument (formalized here via the unvalued  $\varphi$ -feature of  $\nu$ ), which requires valuation by an NP in an A-position.

| (61) a. | NP                  | [ <i>u</i> Case: | ]: | A-dependency                                    |
|---------|---------------------|------------------|----|---|
| b.      | v                   | $[u\varphi]$     | ]: | A-dependency                                    |
| c.      | v                   | [PTT:            | ]: | A-dependency                                    |
| d.      | PRO/pro:            | $[i\varphi$ :    | ]: | A-dependency                                    |
| e.      | $pro_{\mathrm{CL}}$ | [OP/φ:           | ]: | A- and A'-dependency                            |
| f.      | X(P)                | [u/iOP:          | ]: | A'-dependency (OP: wh, pro <sub>CL</sub> , TOP) |

To 'enforce' these dependencies, the \*-marking system followed here provides a new way of looking at these requirements. The idea is simple: if any of these dependencies is not met, the elements in (61) (that is, the ones which require satisfaction of their specific features via the given dependency) are marked with a star corresponding to the property/dependency that is not met. The reasoning behind this marking procedure is that the \* indicates a failure of a particular property. If, for instance, an NP occurs in an A'-position and it is Case valued in that position, there is no problem with Case in such a configuration—the derivation will not fail because of unvalued Case features. Agree does not distinguish between A- and A'-positions, thus T should, in principle, be able to Case value any accessible NP, whether that NP is in an A- or an A'position. But since the valuation dependency is not established in an A-position (as required in (61a)), the NP is marked as NP\*<sup>A</sup>. The advantage of this system is that violation of the A/A'property in (61) becomes a property that can be rescued. For instance, an NP Case-marked in an A'-position ends up with an A-star, but if that copy of the NP is not pronounced at PF (but PFdeleted), the violation disappears. We will see that this is exactly what happens in certain configurations in Tagalog, but it also has ramifications for other languages. For instance, one of the paradigm cases of an A-dependency established via Agree into an A'-position is long distance agreement in Tsez. As argued in P&P (2001), the agreeing argument moves covertly to the edge of the embedded clause where it Agrees with matrix v or T. The current system offers a new approach to these cases. As shown in (62), if v or T Agrees with an XP in Spec, CP (or some other A'-projection), as a result, that XP is marked with an A-star (since the A-part of the dependency is not met). However, if this copy is not the one chosen at PF, as is exactly what happens in case of covert movement, the star is deleted, and the structure passes PF.

(62) 
$$v/T \dots [CP \quad XP*^A \quad \dots \quad XP]$$

Assigning the missed A/A'-dependency as a failure to the element requiring feature satisfaction has different consequences for argument structure properties. For instance, if v does not Merge with an argument in an A-position, v (and as a result the entire vP) is marked as vP\*A. Such a violation can then not simply be undone by pronouncing a different copy of the NP, but rescuing such a violation is typically not possible (though it may make certain predictions for movement and ellipsis).<sup>24</sup> This expresses, correctly, that argument structure properties, unlike Case, show stricter requirements regarding the position of the NP entering such dependency.

One special case I discussed in the previous section is  $pro_{CL}$  associated with a clitic above TP. As indicated in (61e),  $pro_{CL}$  has both A- and A'-properties, and I assume that this licenses  $pro_{CL}$  in either an A- or an A'-position. As long as both properties are met (i.e., the  $\varphi$ -features of  $pro_{CL}$  are valued by the clitic and the proper argument dependency is established between  $pro_{CL}$  and the clitic), no stars are assigned. In other words,  $pro_{CL}$  receives no star independently of whether it is in an A-position or A'-position.

The A/A'-specifications given in (61) do not involve information about T(P). I will show that this is as desired (at least for languages like Tagalog which do not involve EPP satisfaction through movement of the subject to Spec,TP), since Spec,TP can indeed be an A- or an A'-position in Tagalog. The question then is how the A/A'-status of Spec,TP is determined. As mentioned before, I assume that the choice is made by the properties of the element moving

<sup>&</sup>lt;sup>24</sup> It is likely that the nature and position of both elements involved (the one with the unvalued feature and the one satisfying that feature) play a role. For the current purpose, what is given in the text is sufficient.

to/through this position. This is easily determined when an NP with a (what I will refer to) 'open' A-property moves to Spec,TP. A-properties of NPs include unvalued Case features and unvalued φ-features in case of anaphors and control PRO/pro (cf. (61a,d)). Movement of such an NP to Spec,TP should hence be A-movement (note again, though, that this is not a hard constraint—if the 'wrong' A/A'-type is used or chosen, the structure does not terminate, but success or failure depends on whether the thus resulting \* survives to PF or not). What happens if the NP does not have any open A-property? I propose that in that case, the NP should undergo A'-movement. That is, A'-movement is in some sense the default/elsewhere case. The emphasis lies again on 'should', and as we will see momentarily, this requirement can easily be overturned.

In section 4.3.1, I used the descriptive instruction that the status of Spec, TP corresponds to the ultimate purpose of movement: if XP is on its way to satisfy (or get satisfied) an Adependency, Spec, TP is an A-position; if it moves further to satisfy an A'-property, Spec, TP is an A'-position. This description, however, obviously raises the question of how such an instruction can be implemented locally, without *look ahead* in a cyclic derivation. To illustrate the issue, consider again the relevant steps of a BCR/FCR derivation as in (29). As shown in (63a), the subject raises to the matrix clause in two steps: from its base-position to the embedded Spec,TP (since TP is a phase) and from that position to the matrix vP. The latter step has to be Amovement, since the dependency v establishes with the subject must be an A-dependency. But for the subject to undergo A-movement in the second step, the first step in (63c) must also have been A-movement to not lead to an *improper movement* configuration (see below for a way to implement improper movement in the system here). In contrast to B/FCR, wh-movement had exactly the opposite property. As shown in (63a), due to TP being a phase, extraction must pass through Spec, TP. To account for the PTT extraction restriction, it is crucial that the wh-element moves through Spec, TP where it must match the PTT value of v+T. If there is a feature clash, a star corresponding to the type of movement the wh-phrase has undergone is assigned. For that star to survive when the wh-phrase continues on to Spec, CP (which is the result needed, since movement of NON-PTT arguments is excluded), the second step of movement must be the same as the first step of movement. Therefore, in wh-movement constructions, the first step must be a step of A'-movement, as shown in (63d). The obvious question therefore is how it would be known at the stage of step ① whether there is further A-movement or further A'-movement.

(63) a. 
$$\begin{bmatrix} v_P & @ \text{SUBJECT} & v & \begin{bmatrix} TP=P_{hase} & @ \text{SUBJECT} & T+V2 & \begin{bmatrix} v_P & \text{SUBJECT} & VP \end{bmatrix} \end{bmatrix} \end{bmatrix}$$
 B/FCR b.  $\begin{bmatrix} CP & @ wh & C & \begin{bmatrix} TP=P_{hase} & @ wh & T+V2 & \begin{bmatrix} v_P & \text{SUBJECT} & VP \end{bmatrix} \end{bmatrix} \end{bmatrix}$  B/FCR c.  $\begin{bmatrix} TP=P_{hase} & A \end{bmatrix}$ : SUBJECT  $\begin{bmatrix} T+V2 & \begin{bmatrix} v_P & \text{SUBJECT} & VP \end{bmatrix} \end{bmatrix}$  B/FCR d.  $\begin{bmatrix} TP=P_{hase} & A \end{bmatrix}$ :  $\begin{bmatrix} T+V2 & \begin{bmatrix} v_P & \text{SUBJECT} & VP \end{bmatrix} \end{bmatrix}$  B/FCR wh

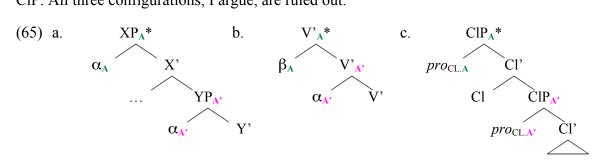
For control infinitives, one solution would be to assume that embedded subjects still involve an unvalued Case feature when they are in Spec,TP. However, since it is controversial whether T in control infinitives is Case-deficient (like in raising contexts) or whether it can value subject Case, I do not follow this 'easy way out', but assume that the issue of *look ahead* needs to be addressed differently. As mentioned above, only NPs with an open A-property undergo A-movement; NPs with no open A-property should undergo A'-movement. Thus, in both contexts in (63), step ① should be A'-movement; if it is not A'-movement, the NP is marked with a star, specifically an A'-star, since the A'-property is the one that is not met. Consider now the different options summarized in (64). In B/FCR, (64a), the first step of movement is A'-movement, as required. This constitutes a problem for step ②, however, which would be *improper movement* (to which I return). In (64b), on the other hand, no problem arises (unless there is a PTT mismatch

in TP). The first step of (correct) A'-movement is followed by a second step of A'-movement, which would carry along any PTT violation star as desired. There is another possible derivation, however, one in which the first step of movement is A-movement instead of A'-movement as illustrated in (64c,d). While this is the 'wrong' movement for an NP which has no open A-properties, as emphasized above, this does not automatically cancel the derivation. All that happens at step ① is that the moved element is marked with an A'-star (recall that the star marks the property that is *violated*—here the A'-hood of the moved subject). As for the second step of movement, the same conditions apply as proposed so far (adopted from Bošković 2011): A-stars are only carried along in A-movement, and A'-stars are only carried along in A'-movement. As a consequence, further A-movement as in (64c) does not carry along the A'-star, whereas further A'-movement as in (64d) does carry along the A'-star. The derivation in (64d) will thus be ruled out, whereas the derivation in (64c) succeeds despite the intermediate 'wrong' step.

(64) a. 
$$*[_{\nu P}$$
 ② SUBJECT  $\nu$   $[_{TP=Phase}$  ①  $A$ ': SUBJECT  $T+V2$   $[_{\nu P}$  SUBJECT  $VP$  ]]] FCR b.  $[_{CP}$  ②  $wh$  C  $[_{TP=Phase}$  ①  $A$ ':  $wh$   $T+V2$   $[_{\nu P}$  SUBJECT  $VP$  ]]]  $wh$  c.  $[_{\nu P}$  ② SUBJECT  $\nu$   $[_{TP=Phase}$  ①  $A$ : SUBJECT\*\*  $T+V2$   $[_{\nu P}$  SUBJECT  $VP$  ]]] FCR d.  $*[_{CP}$  ②  $wh^*A^*$  C  $[_{TP=Phase}$  ①  $A$ :  $wh^*A^*$   $T+V2$   $[_{\nu P}$  SUBJECT  $VP$  ]]]  $wh$ 

The intuition behind this form of \*-marking is as follows: a later step of movement has an indirect influence on an earlier step. For instance, the second step of A-movement in (64c) 'sanctions' the earlier A-movement, which would otherwise have been impossible. On the other hand, the second step of A'-movement in (64d) has no ameliorating effect on an earlier step of (wrong) A-movement which could have been avoided by doing it right the first time. The further discussion should be understood in these terms, even if I won't always spell-out all the steps above.

One concept not yet included in the system here is *improper movement*. In addition to the 'standard' *improper movement* configuration in (65a), I also include two other configurations, which I believe fall under the same restriction. (65b) gives a structure with an A'-specifier under an A-specifier, and (65c) gives the extended TP-domain where an A'-ClP is merged under an A-ClP. All three configurations, I argue, are ruled out.



The common property of these constructions is that an A'-Merge relation is followed by an A-Merge relation of one of the elements involved. In (65a),  $\alpha$  (the moving element) first undergoes Merge leading to an A'-constituent (YP<sub>A'</sub>), following by a second step of Merge of the same element  $\alpha$ , leading to an A-constituent (XP<sub>A</sub>). In (65b) V' is merged with a specifier ( $\alpha$ ) leading to an A'-constituent (V'<sub>A'</sub>), followed by a higher step of Merge involving V' an A-specifier ( $\beta$ ) leading to an A-constituent (V'<sub>A</sub>). Lastly in (65c), there are two Merge operations involving a  $pro_{CL}$  and Cl', and here again, the ordering has to follow the *improper move* schema—the higher Merge cannot lead to an A-projection, when the lower one has lead to an A'-projection. To cover all the instances above, I propose the *Generalized improper merge* condition in (66).

# (66) Generalized improper merge (GIM)

 $K_A = \{\gamma, \{\alpha, \beta\}\}\$  is marked  $K_A^*$  if  $K_A$  dominates an object  $K_{A^*}$  which includes as one of its Merge items another instance of one of the Merge items  $\alpha$  or  $\beta$  of  $K_A$ .

I assume that the projection immediately dominating an A-specifier is an A-object ( $K_A$ ), whereas the projection immediately dominating an A'-position is an A'-object ( $K_{A'}$ ). The GIM condition in (66) assigns a star (I leave open whether it is an A or A'-star) to the result of a Merge relation yielding an A-object if one of the Merge items is also involved in a lower A'-object (see section 5.3.4. for an application of the GIM to the constellation in (65b)). Thus, in all of (65), the higher A-projection is marked with a star, as indicated in the diagrams. In the example in (64a), the consequence is that the matrix vP is \*-marked, which will lead to a problem at PF.<sup>25</sup> GIM violations are thus different from violations associated with moved or moved across elements in making it irrelevant which copy of a moved element is chosen at PF. This is a desired result since cases such as (64a) are ruled out irrespective of which copy of the NP is chosen at PF.

#### 5. CONTROL AND RAISING INFINITIVES

In this section, I will provide an account of Tagalog raising and control infinitives. We will see that there are at least three dialects which differ regarding which elements can escape an infinitive. The distribution of movement and the facts covered are summarized in Table 1 (marks given in parentheses are inferred from the works but not attested).

| Movement of a                     | Examples     | Dialect A (DA) | Dialect B (DB) | Dialect C (DC) |  |
|-----------------------------------|--------------|----------------|----------------|----------------|--|
| PTT subject                       | (70)         | ✓              | ✓              | <b>√</b>       |  |
| NON-PTT subject clitic            | (71)         | ✓              | ✓              | ✓              |  |
| NON-PTT subject in BCR            | (72a)        | ✓              | [ ✓ ]          | [ ✓ ]          |  |
| NON-PTT object                    | (76)         | *              | *              | *              |  |
| PTT object clitic in B(C)R, F(C)R | (78), (97)   | ✓              | ✓              | ✓              |  |
| PTT object in FC, FR              | (95)         | *              | *              | [*]            |  |
| (non-clitic) NON-PTT subject      | (75)         | *              | ✓              | *              |  |
| (non-clitic) PTT object           | (86)         | *              | ✓              | ✓              |  |
| PTT object clitic in FC           | (93)         | *              | Í              |                |  |
| embedded clitics in BR, FCR       | (83a), (85a) | ✓              | not known      |                |  |
| embedded clitics in BCR           | (83b)        | *              | not known      |                |  |

Table 1: Distribution of movement in Dialects A, B, C

In the next sub-section, I provide a summary of the main assumptions at work in deriving the distribution of infinitives in these three varieties of Tagalog. In section 5.2, I discuss cases involving subject movement, including the variation in the second to last row in the Table above. In section 5.3, I provide an analysis of constructions with object movement.

<sup>25</sup> This account makes the prediction that a GIM violation can only be rescued if the whole GIM marked constituent  $(\nu P \text{ in } (64a), \text{ the top projections in } (65))$  is deleted, for instance via in ellipsis. I have not yet tested relevant cases.

<sup>&</sup>lt;sup>26</sup> I base the dialect distribution on the works from which the examples are cited. Kroeger (1993) discusses some of the variation explicitly in section 2.2.2. Further fieldwork is required to determine the geographical and/or sociolectal distribution of the variation.

# 5.1 Summary of theoretical toolbox

Before turning to specific constructions, let me summarize the general system proposed in sections 3 and 4. Tagalog infinitives do not involve any process of restructuring but project a (non-deficient) vP and TP; CP, if present at all, is not phasal, and in raising constructions, T does not assign Case to the embedded subject (but I leave open the Case properties of T in control infinitives). I do assume, however, that the infinitival subject in a control infinitive must be in a Move or Agree dependency with the matrix subject.

A core part of the proposal comes from the assumption that verb movement in Tagalog extends the  $\nu P$  phase to TP (and up to ClP in cases where there is a clitic above TP). This has several consequences summarized in (67).

- (67) a. Subjects of BR infinitives must move to the infinitival Spec,TP to be accessible to matrix T for Case valuation.
  - b. Controlled *pro*/PRO must move to the embedded Spec,TP to be bound by the matrix subject in FC configurations.
  - c. In BCR, the embedded subject must move to the embedded Spec, TP to then move further to the matrix Spec, vP where it establishes the subject relation with matrix v (and as a result control).
  - d. Any argument that ends up in the matrix clause (full NPs or *pro*<sub>CL</sub>) must move through Spec,TP to escape the embedded phase.

In this system, several configurations then involve structures in which more than one argument occurs in Spec,TP and the distribution and properties of such configurations will be discussed showing that the system proposed makes the correct predictions in a number of at-first-sight unexpected patterns.

A crucial theoretical tool the current account adopts is the system of star assignment developed in Bošković (2011). I show in the following sub-sections that this system is very successful in providing the flexibility of sanctioning certain syntactic violations by eliminating offending elements (specifically indications of violations, notated as stars here) as part of the regular PF copy choice. The specific \*-assignment rules used in the analysis are given in (68) and the *improper movement/merge* condition (GIM) is repeated in (69). (68a,b) are the penalties for standard minimality/intervention effects. (68c,d) encode the restrictions of voice marking in Tagalog, possibly Austronesian in general. Finally (68e,f) plus the GIM condition in (66) regulate the distribution of A/A'-movement.

- X<sub>A</sub> intervening in an A-dependency (Move or Agree):  $X^{*A}$ (68) a. X\*A'  $X_{A}$ , intervening in an A'-dependency (Move or Agree): b.  $X^{*A}$  $X_A$  clashing with the PTT value of T (section 4.3.1): c.  $X^{*A'}$ d.  $X_A$ , clashing with the PTT value of T (section 4.3.1):  $X^{*A}$ X with an open A-property in an A'-position (4.4): e.  $X^{*A'}$ X with <u>no</u> open A-property in an A-position (4.4):
- (69) Generalized improper merge (GIM)

 $K_A = \{\gamma, \{\alpha, \beta\}\}\$  is marked  ${K_A}^*$  if  $K_A$  dominates an object  $K_{A'}$  which includes another instance of one of the Merge items  $\alpha$  or  $\beta$  of  $K_A$ .

# 5.2 Subject movement from infinitives

In this section, I concentrate on configurations in which only the subject undergoes movement. Constructions in which both subject and object (must) move are postponed to section 5.3. I begin by discussing constructions which are possible in all dialects.

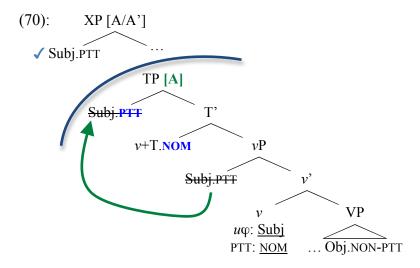
### 5.2.1 Uniform patterns

As shown in (70), all speakers allow movement of a PTT subject out of a raising infinitive. Only raising constructions are given since the corresponding control constructions could be ambiguous between movement and an embedded *pro* structure (see section 5.2.2).

- (70) a. si Miguel ng diyario FR Dapat magbasa na PTT Miguel should C/L NOM.read DET newspaper 'Miguel should read a/the newspaper.' [Kroeger 1993: 174, (16a); **DA**] b. Dapat ang lahat ng mga magulang FR pumalo ng masamang bata ought PTT all DET PL parent spank.NOM DET bad child
  - c. <u>Nagmumukha</u> **ang bata** ng <u>kumain</u> ng mangga FR appear.NOM PTT child C/L eat.NOM DET mango
    'The child appeared to eat a mango.' [Nakamura 2000: 392, (2b); **DC**]

[Miller 1988: 29, (17b); **DB**]

The relevant parts of the structures of these examples are given below (I use the same number on the tree diagrams as on the examples to facilitate matching examples and structures). As shown in the diagrams, in both cases, the embedded  $\nu$  A-merges only with the subject establishing both the argument-of and PTT relation with the subject. In (70), the subject moves to Spec,TP via A-movement (indicated again in green), since the subject is not Case valued yet (it still has an open A-property, as laid out in section 4.4). In Spec,TP, the subject in (70) matches the PTT value of  $\nu$ +T, and no violation arises. The subject can move on without any problems.



'All parents ought to spank naughty children.'

A somewhat open question is why the subject moves to the matrix clause at all in these case. This movement cannot be assumed to be Case driven since Case would also be licensed if the subject remains in the embedded Spec, TP. Miller (1988) provides an interesting discussion of

constructions in which an argument of the embedded clause moves to the matrix clause (as we will see, in the dialect he describes, either the subject or the object can move to the matrix clause in certain contexts). While *dapat*-constructions are raising contexts, they involve a certain modal force, and like in English modal constructions, the modal force can be directed towards different individuals. For instance, Leo must eat three apples a day could be an order directed towards Leo, towards his mother (if uttered by a doctor and Leo is a child), towards anyone salient in discourse. Since non-dynamic modal constructions behave syntactically like raising constructions (Bhatt 1998, Wurmbrand 1999), this direction of the modal force cannot be seen as a thematic property, in other words, even when the modal force is directed towards the subject of the modal construction, this does not entail that the subject merges with the modal as an argument. Rather, the effect of modal force direction is established pragmatically. Now, movement in Tagalog has information structural effects, and Miller shows that in cases where an argument moves to the matrix clause, this argument is the most prominent one and as such associated with the direction of the modal force. I assume that, although the exact driving force of the movement in (70) is not clear, the effects of it are related to information structure and discourse properties, which are reflected in the direction of the modal force.

A second subject movement constructions which is accepted in all dialects (as far as I could determine from the works cited) is movement of NON-PTT subject clitics. Relevant data are given in (71) (another case was already given in (18b)). I include (71c) here to illustrate that NON-PTT subject clitics can undergo movement in Dialect C (I follow Nakamura 2000 who argues that (71c) involves raising), however, the example is different from (71a,b) in that it involves a clitic object rather than a full NP object, which has consequences for the details of the analysis.

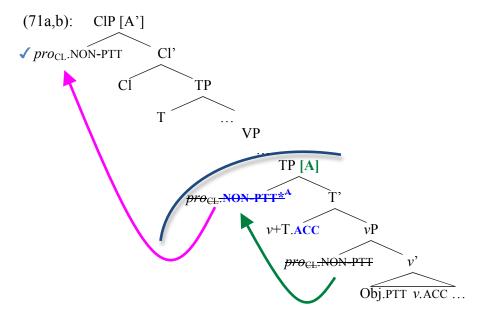
(71) a. Dapat niya ang masamang batang iyan FR paluin ng 3.SG.NON-PTT C/L PTT bad child that ought spank.ACC 'He should spank that naughty child.' [Kroeger 1993: 179, (26b); **DA**] Maaari **nila** b. ang batang iyan FR paluin 3.PL.NON-PTT C/L spank.ACC PTT child that 'They can (have permission to) spank that child.' [Miller 1988: 33, (22a); **DB**] niva FR c. Iniwasan avoided.LOC 3SG.NON-PTT C/L approach.LOC 1SG.PTT 'He avoided approaching me.' [Dell 1981: 25, (83); Nakamura 2000: 401, (36a); **DC**]

As shown in the diagram below, the subject  $pro_{CL}$ , which does not PTT-Agree with v, undergoes A-movement to Spec,TP in (71a,b).<sup>27</sup> (71a,b) are raising configurations in which the embedded subject is Case dependent on matrix T. Since the subject is not Case valued yet, movement to the edge of the embedded phase (Spec,TP in the diagram) should be A-movement. The PTT mismatch in Spec,TP thus yields an A-star on the higher copy of the  $pro_{CL}$  subject. The continuing derivation involves Merge of matrix T which values the Case feature of the embedded subject

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 $<sup>^{27}</sup>$  The structure for (71c) is different in that the top projection of the embedded clause is not TP but a CIP hosting the object clitic (and  $pro_{CL}$ ). The subject  $pro_{CL}$  moves to the higher specifier of this embedded Spec,CIP (where PTT clashes are irrelevant) on its way to the matrix clause. As we will see in section 5.3.3, the embedded clitic structure is compatible with a FCR in certain cases. If (71c) involves a control configuration rather than a raising structure, the structure would be identical to the one given for (85a).

(this part of the derivation is not shown in detail in the diagram). Finally, the clitic is merged above the matrix TP, and the embedded  $pro_{CL}$  moves to Spec, ClP via A'-movement (after T Case-values the subject, it has no open A-property left), which does not drag along A-stars. Thus, the top copy of a NON-PTT subject  $pro_{CL}$  ends up without any star, and the structure is correctly predicted to be grammatical.

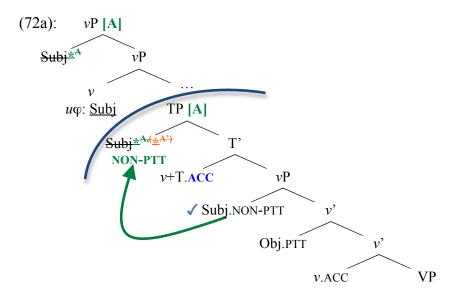


To summarize, the crucial property that allows extraction of NON-PTT subject clitics/ $pro_{CL}$  is that movement to Spec,ClP can be A'-movement. For a PTT violation star (an A-star) to be ignored, the next step of movement must be A'-movement, which is possible for  $pro_{CL}$  associated with clitics since the landing site of  $pro_{CL}$  is above T, which values the subject's Case and hence makes it a candidate for A'-movement.

#### 5.2.2 Control constructions

In section 3.3, I proposed that control constructions (i.e., constructions in which the matrix verb must be merged with an external argument) come in two forms: i) a backward subject movement structure (BCR) in cases with the order V2»SUBJECT such as (72a) and possibly also SUBJECT»V2 constructions, if the embedded verb occurs in NOM voice; and ii) a FC structure with an embedded *pro*/PRO subject if the embedded verb agrees with an argument other than the subject in the SUBJECT»V2 order, such as in (72b).

Before providing further motivation for the FC analysis of (72b), I will discuss the BCR derivation for (72a), which at first sight appears to violate the PTT extraction restriction, but on closer inspection is correctly derived by the system proposed here. The derivation is given below.



As shown, the subject originates as the embedded subject, moves to Spec, TP via A-movement (see section 4.4 for why it can only be A-movement) where it is assigned an A-star for not matching the PTT value of v+T, and an A'-star if the subject is Case valued by the embedded T in a control configuration (again, I do not commit to this assumption which is why I put the A'-star in parentheses below). The A-star is carried along, but the A'-star would not be, when the subject undergoes further A-movement to matrix Spec,vP where it establishes the second subject relation (as indicated by the  $\varphi$ -features on matrix v). Importantly now, both copies—the one in Spec,TP and the one in Spec,vP—are deleted at PF due to the BCR option in Tagalog. The copy of the subject that is chosen at PF involves no stars, and hence the structure succeeds. This is exactly the answer to the question: Why is BCR (or put differently, covert movement) of a NON-PTT subject possible in all dialects, but F(C)R (or overt movement) is not? Low copy pronunciation and deletion of higher copies eliminates violations that occur in copies at a later stage of the derivation, while keeping those higher copies active in the syntax (as is needed for establishing the control relation). Note that Tagalog BCR now offers a case of rescue by PF deletion that was still missing in the system provided by Bošković (2011), thus further supporting that model.

We can now see why constructions such as (33)/(72b) cannot involve FCR. A FCR structure of (72b) would involve the same derivation as (72a), with the only difference that the higher copy of the subject is pronounced. This difference, however, is crucial, since it is exactly the low copy choice that rescues the derivation. As shown in the derivation for (72a), choosing the high copy at PF would be problematic since the higher copy ends up with a star at PF. But note that this does not mean that overt movement of NON-PTT subjects is prohibited altogether. If it is possible for the subject to undergo A'-movement to the matrix clause (an option which is not available in control contexts which require the subject to merge with v as an argument), the PTT star of the subject would not be carried along, thus allowing a NON-PTT subject to escape an infinitive. In the next section, I show that such cases indeed exist.

To substantiate the claim that there are two types of control, I offer three pieces of support. First, overt pronouns are always possible in cases in which BCR would not be possible. This is shown in (73a). Given that Tagalog is a *pro*-drop language, together with the fact that infinitives can occur with overt pronominal subjects makes it very plausible that there is also the option of having a *pro* subject in the infinitive. Interesting questions then arise how distinctions between obligatory and non-obligatory control are encoded. I assume that part of the control relation is

determined as part of the meaning of the selecting verb. Formally, there can be two ways to establish coreference between the matrix subject and an embedded subject (in FC constructions): binding and pragmatic coreference. Evidence for this approach comes from the second property of what I take to be FC cases: as shown in (73b), an overt embedded subject pronoun (and by extension then also a pro) is impossible when the 'controlee' is the PTT subject of the embedded clause which could undergo BCR. This property is highly reminiscent of pronoun binding, which also shows a preference for establishing coreference via a syntactic chain (yielding a bound variable configuration) over coreference assigned pragmatically. Reuland (2001), for instance, following ideas in Grodzinsky and Reinhart (1993), Reinhart (1986), among others, argues specifically that the best option to derive a coreference interpretation is via a syntactic chain. If such a syntactic mechanism is not possible (for whatever reasons), binding can be established semantically or pragmatically. I believe the facts in (73) point to a very similar conclusion. To express a control interpretation, the 'best' way is to have that interpretation fall out from a syntactic dependency such as a chain created by movement. Since the two theta positions are related via a syntactic chain, no further binding/control mechanism is necessary to create the control relation. Using the *pro* strategy is thus blocked whenever the movement strategy is available. This is what we find in (73a) vs. (73b): in the former, movement of a NON-PTT subject is not possible (due to the PTT extraction restriction), and the pro strategy can (in fact has to) be used. In (73b), on the other hand, the embedded 'controlee' is the PTT argument, which can undergo raising and hence create a chain configuration, which is preferred over the pro and binding strategy. For that reason, the *pro* strategy is excluded, which is evidenced by the impossibility of the overt pronoun.<sup>28</sup>

(73) a. ni Juan ang dalawang mangga FC Pinilit kinain pro/niva ng DET Juan C/L eat.ACC pro/3.sg PTT two mango trv 'Juan tried to eat the two mangoes.' [Miller 1988: 233, (16)] ng dalawang mangga \*Pinilit b. kumain BCR niva siya ng trv 3.SG C/L eat.NOM 3.SG.PLT DET two mango [Miller 1988: 235, (17)] 'He tried to eat two mangoes.'

Lastly, control examples such as (72b) differ sharply from raising constructions for some speakers, in that the latter cannot involve an argument in the matrix clause that does not correspond to the embedded PTT argument (cf. (74)). I will provide the details of the explanation for the impossibility of (74) in the next section, but the main conclusion is that movement of a NON-PTT subject is impossible in certain dialects. Since this restriction does not apply in the parallel control cases in (72b) in those dialects, the claim that the overt subject is base-generated in the matrix clause (and associated with an embedded *pro* subject) is supported.<sup>29</sup>

(74) a. \*Dapat si/ni Miguel na basahin ang diyario FR should PTT/DET Miguel C/L read.ACC ang newspaper [Kroeger 1993: 171, (7); DA]

<sup>&</sup>lt;sup>28</sup> The distribution of overt pronouns is more complex in object control and control constructions that also allow a non-obligatory control interpretation (see Miller 1988). Since these constructions involve several other issues that need to be considered, I have to set aside this topic for future research.

<sup>&</sup>lt;sup>29</sup> In *appear* raising contexts, any NP in the matrix clause must show up with PTT marking, due to the verb form on the matrix verb. However, in (74b), the object originates as a NON-PTT argument of the embedded verb.

b. \*Nagmukha si Fe na nilinis ang buong hahay FR appeared.NOM PTT Fe C/L clean.ACC PTT whole house [Nakamura 2000: 395, (11a); DC]

# 5.2.3 Dialect variation — Subjects in A'-positions

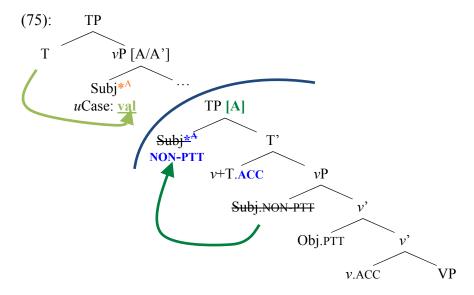
The possibility of movement of NON-PTT subject clitics brings us back to the questions raised in section 3.3 regarding the examples in (32), repeated and extended in (75). While movement of PTT subjects (cf. (70)) and NON-PTT subject clitics (cf. (71)) was possible in all dialects, movement of NON-PTT full NP subjects is more restricted: it is possible in Dialect B, but not Dialects A and C.<sup>30</sup>

- (75) a. \*Dapat si/ni Miguel ang diyario FR na basahin PTT/DET Miguel C/L should read.ACC ang newspaper 'Miguel should read the newspaper.' [Kroeger 1993: 171, (7); **DA**] b. ??Puwede/??Maaari si Miguel basahin ang diyario na can/can PTT Miguel C/L read.ACC ang newspaper [Kroeger 1993: 171, (7); **DA**] 'Miguel can read the newspaper.' Maaari **ni John** ang batang iyan c. paluin FR
  - c. <u>Maaari</u> <u>ni John</u> <u>paluin</u> ang batang iyan ought DET John spank.ACC PTT child that 'John can spank that child.' [Miller 1988: 33, (22b); **DB**]
  - d. ? Maaari ng mga magula ng paluin ang batang iyan FR ought DET PL parent C/L spank.ACC PTT child that 'The parents can spank that child.' [Miller 1988: 34, (22c); **DB**]
  - e. \*Nagmukha si Fe na nilinis ang buong hahay FR appeared.NOM PTT Fe C/L clean.ACC PTT whole house [Nakamura 2000: 395, (11a); DC]

The structure generated by the system proposed here is given below. Non-PTT subjects are merged with v first, followed by tucking-in of the PTT object. Since the embedded TP is a phase, the subject must move to Spec,TP on its way to the matrix clause. Since the subject has an unvalued Case feature, this movement is A-movement. In Spec,TP, a PTT clash occurs (the subject is incompatible with the ACC v+T) and is therefore marked with an A-star according to the \*-marking convention in (68c). If the next step of movement is again A-movement (which it should be since the subject still has an unvalued Case feature—T is merged higher than the landing site of the moved subject in (75)), the star is carried along from Spec,TP to the matrix landing site. Thus, the higher copy would remain \*-marked.

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<sup>&</sup>lt;sup>30</sup> In Dialect B, too, there are restrictions: the moved subject must be specific/definite. This restriction is also somewhat visible in Dialect A in that raising of proper names is marginally possible with *maaari* and *puwede* (see (75b)), however movement of full NPs (as in (75d)) is fully ungrammatical in Dialect A, in contrast to Dialect B.



The only way the PTT-star could be ignored is if the movement to the matrix clause is A'-movement. In the current system, there is no general ban against A'-movement of NPs with unvalued Case, but since the subject has an open A-property, A'-movement would yield an A-star on the moved NP, according to the star-assignment rule in (68e). This is illustrated in the structure above. A'-movement to the matrix clause would not carry along the PTT star from the embedded Spec,TP, but a new A-star would be assigned since an A-phrase appears in the wrong type of position—a position which does not represent the "A-hood" of the subject. This is what excludes movement of NON-PTT subjects in Dialects A and C.

How then does the difference between the dialects arise? As shown in (75), when the subject moves to Spec,XP, it still has an unvalued Case feature, thus acquiring an A-star. But after T is merged and values the subject's Case, the subject has no open A-property anymore. Thus, in the same position (but not the same stage of the derivation), the subject has an open A-property at one point and it also has no open A-properties at another point. If the earlier stage is taken as the relevant one for star assignment, an A-star is assigned; but if the later stage of the derivation is taken as the relevant one, the by then A-property-less subject would not trigger an A-star by being in an A'-position. This ambivalent status of the subject at different times in the derivation (but in the same position) is, I propose, where the difference between the dialect lies. The \*-assignment rule in (68e) is therefore reformulated to reflect this difference among the dialects.<sup>31</sup>

- (68) e. X with an open A-property in an A'-position is assigned  $X^{*A}$  at the point when:
  - i. X Merges (Dialects A,C)
  - ii. when the phase containing X is complete (Dialect B).

We are now in a position to answer the questions raised in section 3.3:

- i) How is movement of a NON-PTT clitic subject possible?
- ii) How is movement of a NON-PTT full NP subject possible?
- iii) Why is ii) only possible in one dialect, whereas i) is possible in all dialects?

<sup>&</sup>lt;sup>31</sup> An alternative would be to allow \*A to be deleted in Dialect B after T values the subject's Case. Since deletion is a more powerful mechanism, I use the timing formulation in the text.

In all cases of movement of a NON-PTT subject, a PTT mismatch occurs in the embedded Spec, TP. This mismatch A-star is carried along if the subject undergoes further A-movement, which leads to a problem at PF. But there is also the option of the subject moving into the matrix clause via A'-movement, in which case the PTT clash star would not be carried along. Moving an NP to an A'-position, however, could create another problem. If the NP has an open A-property, being in an A'-position triggers an A-star on that NP. For clitics this situation will not arise since  $pro_{CL}$  moves to a position above matrix T—that is,  $pro_{CL}$  is first Case valued by T and then moved to Spec,CIP. Thus, when  $pro_{CL}$  arrives in Spec,CIP it has no open A-property left and being in an A'-position is unproblematic. This is why movement of NON-PTT clitic subjects is possible in all dialects. For NP-movement, it depends on when the evaluation of (68e) applies: if it applies at the time the NP merges in the matrix position moved to, an A-star is assigned and the configuration fails at PF. If assigning the star is postponed until after T values NP's Case feature, the NP (like  $pro_{CL}$ ) ends up without open A-properties, and being in an A'-position is unproblematic.

So far, I have considered cases in which the subject undergoes movement from the infinitive. In the next section, I turn to constructions in which an object is moved out of an infinitive.

## 5.3 Object movement from infinitives

# 5.3.1 Uniform object movement options

As with NON-PTT subject movement out of an infinitive, there is also variation regarding object movement. But one construction is uniformly excluded by all speakers: as shown in (76), all speakers disallow movement of NON-PTT objects (whether full NPs or clitics).<sup>32</sup>

ng masamang bata (76) a. \*Dapat ang lahat na mga magulang BR pumalo ng ought DET bad child C/L spank.NOM PTT all LNK PL parent 'All parents ought to spank naughty children.' [Miller 1988: 29, (17c); **DB**] \*Nagmumukha ang mangga ang bata<sup>33</sup> BR na kumain (PTT) mango appear.NOM C/L eat.NOM PTT child 'The child appeared to eat a mango.' [Maclachlan 1996: 226, (33); Nakamura 2000: 392, (2b); **DC**]

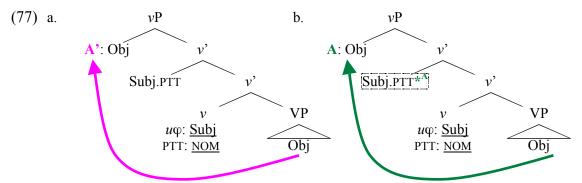
In (76), the object and the subject move to the embedded Spec, TP, the former overtly, the latter covertly (recall that the subject must get into the Agree domain of T to get Case valued, and the object must move to the edge of the TP to move out of the TP phase). To derive the ungrammaticality of these cases, there are several derivations to consider (and to exclude). One set of derivations can be shown to be unsuccessful fairly easily. Derivations in which the object moves via Amovement in the first step are no option for examples such (76). This is illustrated in (77). If the object undergoes A-movement as in (77b), it crosses the base position of the subject (an Aposition), which yields a minimality violation, specifically, an A-star on the subject. No such

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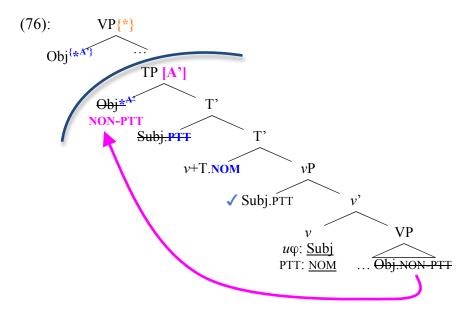
<sup>33</sup> See fn. 29.

<sup>&</sup>lt;sup>32</sup> Although Kroeger (1993) does not give examples of illicit object movement in Dialect A, it is stated explicitly that when a full NP moves, only PTT subjects can move in this dialect. As we will see in section 5.3.4, movement of objects is excluded in Dialect A, even when the object is the PTT argument (Dialect A contrasts with the other dialects regarding this property). From Kroeger's discussion and the fact that Dialect A is the most restrictive dialect regarding movement, it can be inferred that the examples in (76) are excluded in Dialect A.

violation arises when the object undergoes A'-movement as in (77a). Independently of how the derivation in (77b) proceeds, we can see that the A-movement option is problematic for the examples in (76). The reason is that in (76) the subjects are pronounced in the lower position (in their base-positions). Since the copy in the embedded Spec, vP is marked with a star, choosing this copy at PF leads to ungrammaticality.



This leaves derivations in which the object first undergoes A'-movement as in (77a). For these particular cases, we can set aside the specifics of subject movement, since independently of what the subject does in these cases, the derivation will fail. As depicted below, the object undergoes A'-movement to the embedded Spec,TP (movement to the vP is not necessary, since vP is not a phase). This movement is in accordance with the features of the object (it has no open A-properties) and also does not yield any minimality violations (as long as no A'-copy of the subject is crossed). A problem, however, arises in Spec,TP where the object clashes with the PTT value of v+T. As a result the object is marked \*A' according to (68d). At this point, there are, in principle, two ways for the object to continue—via A- or A'-movement. However, both options are excluded. A-movement from Spec,TP to the matrix vP/VP violates GIM and hence yields a star on the matrix VP in (76). A'-movement, on the other hand, must carry along the A'-star. In both scenarios, thus, a PF is created that involves a star, which rules out the derivations.



A construction which is allowed by all speakers, on the other hand, is movement of a PTT object clitic. As shown in (78a,b), object clitics can move out of BR and BCR infinitives (both are from

Dialect A). Examples (78c,d) show movement of object clitics out of raising infinitives in Dialects B and C. In (78a-c) two elements must move to the embedded Spec,TP—the clitic associated  $pro_{CL}$  and the embedded subject, which needs to be Case valued by matrix T in (78a,c) and move to matrix Spec,vP in (78b), since the latter is a case of control. In (78d), it is a priori not clear whether this is a case of FC, FCR, or FR. In either case, however, there would again be two elements in the embedded Spec,TP—the object  $pro_{CL}$  and a pro controlled by the matrix subject  $pro_{CL}$  (FC), or a subject  $pro_{CL}$  which moves to the matrix clause via FR or FCR.

| (78) | a. | <u>Dapat</u>                     | siya      | ng             | _           |           | ng guro        | BR                              |
|------|----|----------------------------------|-----------|----------------|-------------|-----------|----------------|---------------------------------|
|      |    | ought                            | 3.SG.P7   |                | 1           |           | DET teacher    |                                 |
|      |    | 'He/She o                        | ught to b | e spanked      | by the/a te | acher.'   | [Kroeger       | 1993: 177, (20a); <b>DA</b> ]   |
|      | b. | Hindi                            | siya      | <u>kaya</u> ng | utusa       | <u>n</u>  | ni Pedro       | BCR                             |
|      |    | not 3                            | 3.SG.PTT  | able C/        | L order     | .DAT      | DET Pedro      |                                 |
|      |    | 'Pedro cannot order her around.' |           |                |             |           | [Kroeger       | 1993: 183, (32a); <b>DA</b> ]   |
|      | c. | <u>Maaari</u>                    | siya      | ng             | suri        | <u>n</u>  | ni Dr. De Jesu | BR                              |
|      |    | permissab                        | le 3.sg.  | .PTT C/.       | L exar      | nine      | DET Dr. De Jes | us                              |
|      |    | 'He may b                        | oe examii | ned by Dr.     | De Jesus.'  |           | [Mil]          | ler 1988: 64, (57); <b>DB</b> ] |
|      | d. | Iniwasan                         | niy       | ra             | ako         | ng        | lapitan        | FR                              |
|      |    | avoided.L                        | oc 3so    | G.NON-PTT      | 1sg.ptt     | C/L       | approac        | ch.LOC                          |
|      |    | 'He avoid                        | ed approa | aching me.     | ' [Dell 19  | 81: 25, ( | 84); Nakamura  | 2000: 401, (36b); <b>DC</b> ]   |

Since there are two elements in the embedded Spec, TP which both must enter a dependency (More or Agree) with an element in the matrix clause, it needs to be determined what configurations are possible in these cases, which element is the inner, which the outer specifier, and whether the elements involved are in A- or A'-positions. To answer these questions and to show how the current system derives cases in which both subject and object move to or through Spec, TP, I will provide a summary and 'roadmap' for determining what movement combinations of two elements moving to the embedded edge are possible or impossible to allow the reader to quickly see the (non-)options without having to calculate dozens of derivations.

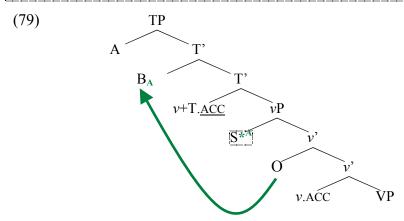
### 5.3.2 Possible and impossible movement combinations of object and subject movement

In this section I abstractly present the possible and impossible derivations of constructions in which both subject and object move to the embedded Spec, TP. I consider only the derivations of the embedded clauses here and point out several consequences of the current system which will help narrow down the derivations to be considered for complex sentences. The ultimate success or failure of a derivation depends, of course, on the continuing derivation of the matrix clause, to which I turn in the following sections.

Since movement of a NON-PTT object is excluded (see the previous section), only cases in which the verb agrees with the object (v.ACC) are considered. The first point to note is that in cases where the subject is pronounced in the low position, S in (79), movement of the object cannot proceed via A-movement (see also (77b); I indicate the type of movement or position an argument is in via subscripts, and as before, violation stars are given as superscripts). A-movement of the object always crosses the base-position of the subject and hence assigns a minimality A-star to the lower copy of subject (even if the subject has undergone movement to a

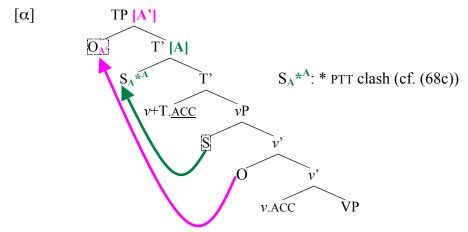
higher position already, its copy is still present). As a result, the lower copy of the subject could not be chosen at PF. Note that this does not mean that A-movement of the object is impossible in the configuration below—it is only impossible in constructions in which the lower copy of the subject is (successfully) pronounced. Consequence A summarizes this restriction.

Consequence A: Low copy pronunciation of the subject entails A'-movement of the object.



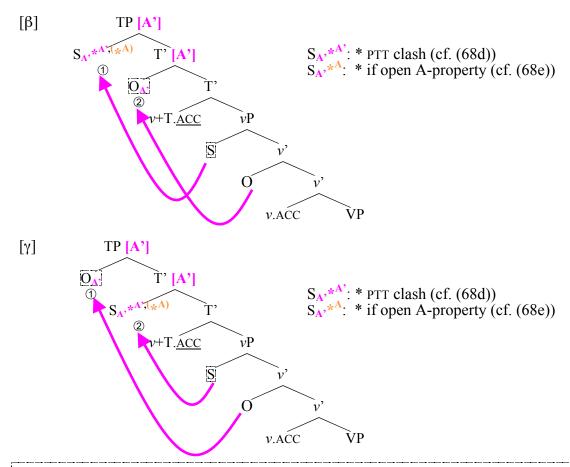
Let us then see what the successful derivations are for cases in which the lower copy of the subject is pronounced. The object must undergo A'-movement, but this still leaves three derivations that end up \*-less (in the relevant sense) at PF, at least within the embedded TP (see the next two sections for continuing derivations). These are given as  $\alpha$ ,  $\beta$ , and  $\gamma$  below. Circled numbers (on the landing site) refer to the order of the movements in cases where it matters.

Derivation  $\alpha$  involves A'-movement of the object and A-movement of the subject. The subject receives a PTT star in Spec, TP, however, since this copy is not pronounced, PF-happiness ensues. The copies used at PF are boxed in the diagrams. Note that a Derivation  $\alpha$ ' in which the subject A-moves to the higher Spec, TP and the object to the lower Spec, TP (the timing of movement would again not matter) is not possible given the GIM condition—A'-specifiers cannot occur under A-specifiers.



Derivations  $\beta$  and  $\gamma$  involve A'-movement of both the object and the subject. Since tucking-in is allowed in the system here, the subject and object can move in either order with the element moved second tucking-in under the first one. As a result, no minimality violation occurs, since, for instance in  $\beta$ , the subject does not move across the A'-copy of the object; the subject moves

first, and the object then tucks-in under the subject. Derivation  $\gamma$  shows the opposite ordering. In neither derivation is there a violation on the object, but the subject again incurs a PTT violation, this time an A'-star since the subject has undergone A'-movement. Furthermore, if the subject has an open A-property (e.g., an unvalued Case feature), movement of the subject to an A'-position also yields an A-star (since the A-hood of the subject is not met in an A'-position). The latter star is put in parentheses in the diagrams below, since it is only assigned when the subject has an open A-property. As before, the stars on the higher copy of the subject are irrelevant if at PF, the lower copy of the subject is chosen (as shown in  $\beta$  and  $\gamma$ , the lower copy is star-free in both derivations). Thus both  $\beta$  and  $\gamma$  are possible derivations up to the embedded Spec,TP for low subject constructions. The above is summarized as Consequence B.



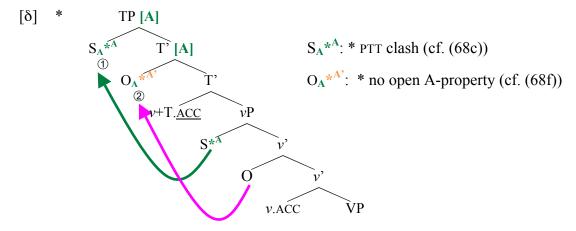
Consequence B: When the subject is pronounced in its base position, three derivations are possible —  $\alpha$ ,  $\beta$ , and  $\gamma$ .

Although the last two derivations are possible when the subject is pronounced in the low position, there is an interesting consequence for cases in which the subject is not pronounced in the low position. Derivations  $\beta$  and  $\gamma$  cannot derive such cases, no matter what the next step of the derivations would be. Further A-movement of the subject (which could potentially eliminate the A'-star in the next copy) would yield an *improper movement* violation, here excluded via the GIM condition. Further A'-movement is, in principle, possible, but it would copy along the A'-star. Hence, as was the case in the illicit NON-PTT object movement cases in (76), all higher copies of the object (A'-movement) or the projection dominating the higher copy (GIM) end up with

a star, and the derivations cannot pass PF. This is summarized as Consequence C.

Consequence C: For cases in which the subject is pronounced in a derived position, Derivations  $\beta$  and  $\gamma$  are not possible.

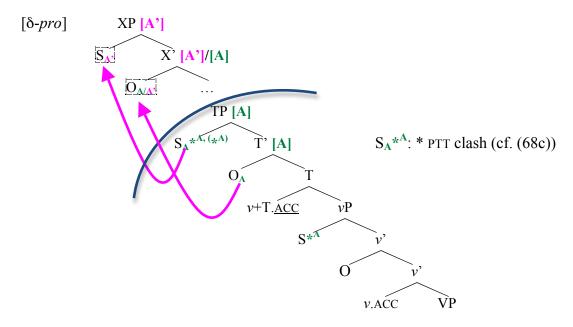
Derivation  $\alpha$ , on the other, can derive high PF positions of the subject, but only if in the continuing derivation the subject undergoes a step of A'-movement (which can be either the movement step from Spec,TP or a later movement step). A'-movement allows leaving behind the A-star in Spec,TP, and an A'-derived higher position of the subject then ends up without an offending star. Is there another way to derive constructions in which the subject is pronounced in a higher position? Recall that A-movement of the object is not possible when the lowest copy of the subject is to be pronounced (Consequence A), but the question is whether the first step of object movement can be A-movement in cases where a higher copy of the subject is chosen. Thus two more options need to be considered: a derivation in which the object and the subject undergo A-movement, and a derivation in which the object undergoes A-movement but the subject A'-movement. The latter option can be discarded quickly. If the subject moves to Spec,TP via A'-movement, like in Derivations  $\beta$  and  $\gamma$ , further A-movement of the subject is not possible (cf. the GIM condition) and therefore all higher copies end up with an A'-star. This leaves us with one final derivation to consider, Derivation  $\delta$ .



Derivation  $\delta$  is a case where both object and subject undergo A-movement. Both copies of the subject are marked with an A-star—the higher copy due to the PTT clash in Spec,TP, the lower copy due to the minimality effect that copy causes when the object moves across it. If the object has no open A-property (it has no unvalued Case feature, it is not *pro*), the higher copy of the object is marked with an A'-star according to (68f). This A'-star, however, is a non-rescue-able star. If further movement is A'-movement, the A'-star is carried along; if the next movement step is A-movement again, the A'-star acquired in Spec,TP is not copied along, however, since the object would again be an element with no open A-property in an A-position a new A'-star would be assigned in the landing site of A-movement. Thus Derivation  $\delta$  is not possible for cases in which the object is a full NP, which leads us to Consequence D (see below for the exception regarding clitics).

Consequence D: In cases where the subject is pronounced in a derived position and the object is not a clitic associated  $pro_{CL}$ , only Derivation  $\alpha$  leads to a convergent PF.

However, there is a derivation involving double A-movement of both the subject and object as the first step of movement, given below as δ-pro. As before, subject movement to Spec,TP yields an A-star on the higher copy of the subject due to the PTT clash, and object movement yields a minimality A-star on the lower copy of the subject. Now, if the object is a pro<sub>CL</sub> (pro associated with a clitic), no star is assigned in Spec,TP, since, as discussed in section 4.3.3, pro<sub>CL</sub> has both A- and A'-properties and is hence satisfied in either an A- or an A'-position. For the next steps of movement there are two options. The object could undergo further A-movement, followed by A'-movement of the subject. A-movement of the object assigns another A-star to the subject in Spec,TP, but this is unproblematic since this copy will eventually be deleted. Alternatively, depending on the landing positions, both subject and object could undergo A'-movement, with the subject moving first and the object tucking-in under the subject. In both options, A'-movement of the subject has the welcome result that the subject gets relieved of its A-star and no further minimality violations arise. If PF chooses the boxed copies in the diagram below, the derivation succeeds. This is stated as Consequence E.



Consequence E: A derivation in which both subject and object undergo A-movement from their base-positions is only possible if the object is  $pro_{CL}$ .

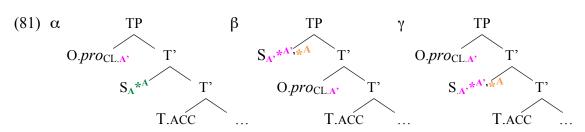
Having given the mechanical derivations for constructions in which both subject and object move to Spec,TP, let us now return to actual examples.

# 5.3.3 The Edge Condition

The examples in (78) ((78a,b) are repeated as (80) for convenience) involve a low subject in the infinitive and a clitic associated  $pro_{CL}$  originating as the embedded object but overtly occurring in the matrix clause. Since the subject is pronounced in the base position, the object must undergo A'-movement (Consequence A). Although the object is a  $pro_{CL}$ , the double A-movement derivation in  $\delta$ -pro is not available for these examples, since the subject is pronounced in the lowest position, which in  $\delta$ -pro is marked with an A-star due to minimality. The basic options are thus Derivations  $\alpha$ ,  $\beta$ , and  $\gamma$  (Consequence B).

(80) a. Dapat siva paluin ng guro BR ng ought 3.SG.PTT C/L spank.ACC **DET** teacher 'He/She ought to be spanked by the/a teacher.' [Kroeger 1993: 177, (20a); **DA**] ni Pedro b. Hindi siva <u>kaya</u> **BCR** ng utusan 3.SG.PTT able not C/L order.DAT DET Pedro 'Pedro cannot order her around.' [Kroeger 1993: 183, (32a); **DA**]

In (81), I illustrate the embedded TPs for the three derivations. An important point to note is that (80b) is a BCR construction, that is a configuration in which the embedded subject must merge with the matrix v' to establish an argument-of relation with the matrix predicate. The subject must therefore move to matrix Spec,vP via A-movement. This again entails that the subject cannot move to the embedded Spec,TP via A'-movement, as this would yield an illicit *improper movement*/GIM constellation. Thus, for (80b), only Derivation  $\alpha$  is an option. I return to (80a) below.



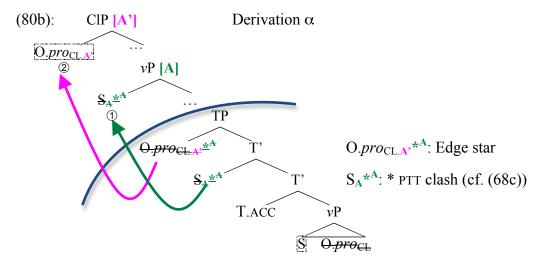
While A-movement from Spec,TP to matrix Spec,vP across the A'-specifier in Spec,TP does not cause a minimality problem, it does raise the question of whether/how an element that is not at the literal edge of the embedded TP phase can undergo movement out of that phase. The definition of 'Edge' is variable in different works, but we will see that the patterns of extraction in Tagalog support a view according to which multiple specifiers are not equidistant from a higher position but that movement is only possible from the highest position of the phase edge (see R&R 2005, Bošković To appear). Following the line of reasoning in this article, I assume that the edge restriction is not an absolute condition, but that movement from the non-edge is, in principle, possible, but is penalized by assigning a star to the offending 'true' edge. The type of star is again determined by the type of movement the second specifier undergoes. This is stated as the *Edge condition* in

## (82) Edge condition

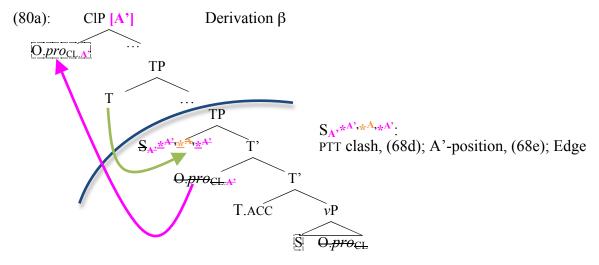
X, X a specifier of a phase head, is marked  $X^{*\{A, A'\}}$  if X is crossed by  $\{A, A'\}$  movement of Y, Y a specifier of the same phase head.

The remaining derivation for (80b) is then as below. After building the embedded TP (using Derivation  $\alpha$ ), the matrix V and v are merged. At this point—crucially, before the object (the first edge) can undergo movement—the subject moves (via A-movement) from the embedded second Spec,TP to the matrix Spec,vP. As a result, as shown, the object in Spec,TP is crossed and marked with an A-star. The edge condition is thus a severe form of a minimality condition—not just elements of the same type (A vs. A') but anything in the way gets punished by a star. Luckily, the object also moves further, and that movement must be A'-movement (since the first step of movement of the object was already A'-movement), hence the A-star is not carried along when the object moves to its landing position Spec,ClP. Despite the turmoil in the embedded TP,

at PF, the highest copy of the object and the lowest copy of the subject are both without any stars, and those copies are indeed the copies that are pronounced in examples such as (80b).



To recapitulate, while movement from a second edge specifier across a higher edge specifier (which at the time of movement of the second specifier is still present) yields a violation, this violation can be rescued by further movement. This distinguishes the current account from other accounts which also assume that only the highest edge is available for movement. In R&R's 2005 system (also in Bošković To appear), for instance, movement of a lower specifier across a higher specifier would be impossible and hence BCR constructions such as (80b) which also involve clitic climbing could not be derived by XP-movement of both the subject and the clitic. We will see below that the non-rigid (i.e., rescue-able) edge condition makes the correct prediction for other cases of movement in Tagalog. But before presenting those, we need to discuss raising constructions such as (80a). In contrast to the control case in (80b), in raising constructions, the subject only needs to move to the embedded Spec,TP. Furthermore, as I have shown in section 5.2.3, Case can be valued on an NP in an A'-position. This opens the possibility that raising constructions such as (80a) are derived via Derivation β:

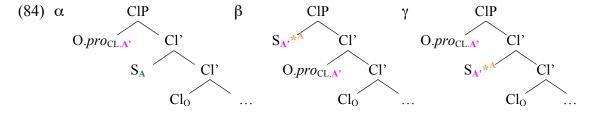


The subject occurs at the top edge of the embedded phase, and it is thus accessible to T. The subject does, however, collect several stars in this position. First, it clashes with the PTT value of T,

yielding an A'-star (since the subject has moved to Spec,TP via A'-movement). Second, it has an open A-property but occurs in an A'-position, yielding an A-star. And third, when the object moves to Spec,ClP it crosses the subject, which, in this case, is both a violation of the edge condition and of minimality (I mark this second A'-star in the diagram as well, however, presumably there would be no need to add another star of the same type—in the system here, stars are not counted; the only thing that counts at PF is whether there is a star or not). Despite all the problems in Spec,TP, since this copy is deleted at PF, the structure nevertheless succeeds.<sup>34</sup>

We can now return to a difference between raising and control pointed out in sections 2.2 and 3.2. In BR constructions it is possible to 'strand' a clitic in the embedded clause, whereas this is excluded in BCR constructions. The relevant examples are repeated as (83). In section 3.2, I proposed that the difference is due to an *improper movement* violation in the control case. This is the case for certain derivations, and I will now discuss these examples in detail and show why there is no successful derivation for such control examples.

We can start by restricting our attention to Derivations  $\alpha$ ,  $\beta$ , and  $\gamma$  since in both cases the subject is pronounced in its base-position (cf. Consequence A and B). The situation is, however, slightly different, since in these constructions the top projection of the embedded clause is not TP but ClP. This has no effect on the basic  $\alpha$ ,  $\beta$ , and  $\gamma$  derivations, see (84), but it does have an effect on the copy of the subject in Spec,ClP. Since ClP does not involve a PTT feature, arguments clashing with the PTT value of the verb are not penalized when moving to Spec,ClP (and recall that movement to Spec,TP does not occur since TP is not a phase in clitic construction, but the TP phase is extended to ClP; see section 4.3.3).<sup>35</sup> The subject still receives an A-star, however, if it is placed in an A'-position since its Case has not been valued.



Raising constructions could also be derived via Derivation  $\alpha$ , but in Dialect A only if the subject undergoes movement to the matrix clause, similar to what happens in control constructions (however without the motivation to establish an argument-of relation). In the next section, I will argue that Agree into the second specifier is not possible in Dialect A, hence a subject in the lower Spec,TP could not be Case valued. The same is the case in Derivation  $\gamma$  (for all dialects). In this derivation, however, movement of the subject could not remedy the situation. This movement would have to be A'-movement from a non-edge position, which would assign an A'-star to the object in the true edge position. Further A'-movement of the object would then necessarily carry along the A'-star, leading to a PF where the object is marked with a star. Thus, Derivation  $\gamma$  is not available for either of the examples in (80).

<sup>&</sup>lt;sup>35</sup> This makes a very interesting prediction about movement of a NON-PTT subject, which I show below is borne out.

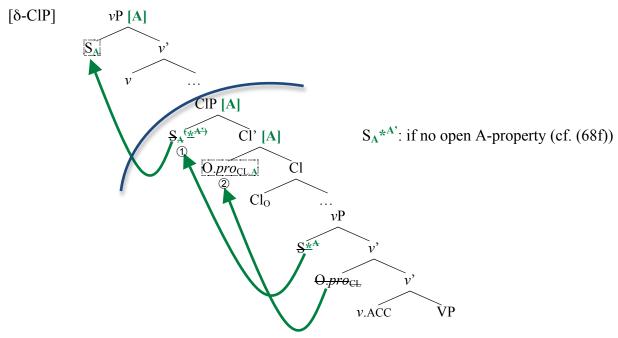
Let us see how these derivations fare for the raising case in (83a) first. As we have seen in (80b), Derivation  $\beta$  is successful in deriving raising constructions. This is also the case in (83a)/(84): The subject is the top edge of the embedded TP, and it can Agee with matrix T in this position. The object  $pro_{CL}$  is in a lower A'-specifier, but since it does not establish any dependency with a matrix element (the licensing clitic head is in the infinitive in these constructions), the lower position is unproblematic, and, as we have seen, clitics can have A- or A'-specifiers. If Agree with a second specifier is impossible in this specific case (see the next section for details), Derivation  $\gamma$  is excluded. The subject does not receive Case in the embedded clause, and A'-movement across the higher specifier yields an A'-star on the object (which would be problematic at PF).

The important question now is if Derivation  $\alpha$  could deal with these examples. Since Agree with a second specifier is impossible, the subject would not be Case-marked within the infinitive. Once again, we have to ask whether the subject could move to get closer to its Case licensor. The answer is 'no'. If the subject moves to the matrix clause, independently of whether this movement is A- or A'-movement, a star is assigned to the higher specifier, the object procl. by the edge condition. In (80b), this violation was later fixed by further movement of the element at the true edge (the  $pro_{CL}$ ). However, this is not possible in (84 $\alpha$ ): the crucial difference is that the procl associated with the clitic is already in its final landing site and no further movement takes place. Thus, derivation  $\alpha$  either ends with a non-rescue-able star on the object  $pro_{CL}$  or with an unvalued Case feature of the subject. For the raising case, this is not a problem, since we have seen already that there is a successful derivation—Derivation  $\beta$ —which is all that is needed to account for the grammaticality of (83a), but it has an important consequence for the control construction in (83b). Since movement of the subject is impossible in (84 $\alpha$ ), there is no derivation that could derive the control example. Derivation  $\alpha$  is excluded since the subject cannot move to the matrix Spec, vP (to establish an argument-of relation with v) without yielding a star on the  $pro_{CL}$ ; and Derivations  $\beta$  and  $\gamma$  are excluded as *improper movement*/GIM violations.<sup>36</sup>

The derivations with clitics in infinitives in (84) only considered scenarios where the low copy of the subject is pronounced (specifically cases where the base-position of the subject does not involve any stars). If the subject is pronounced in a higher position, there is another derivation which we have not considered yet, depicted as  $\delta$ -ClP.  $\delta$ -ClP is similar to the double Amovement derivation  $\delta$ -pro depicted in the previous section, with the difference that the top projection is a ClP rather than TP, which, as mentioned above, makes an interesting prediction regarding the PTT extraction restriction. In this derivation, there is again a ClP in the embedded clause. If the lowest copy of the subject is not to be chosen at PF, a double A-movement derivation is possible (see Consequence E). As indicated, the subject undergoes A-movement to Spec,ClP first, followed by tucking-in of the object. A-movement of the object leaves a minimality star on the lowest subject position. If the subject has an open A-property, no star-marking occurs on the copy of the subject in Spec,ClP. If the subject has no open A-property, an A'-star is assigned (I have therefore put the star in parenthesis). Crucially, however, no PTT star is assigned. The main difference between constructions with and without embedded clitics is that the

 $<sup>^{36}</sup>$  Note that a structure like ( $^{84}$ a), but where the subject and object occur in the opposite order in CIP (which would make the subject the highest specifier and hence accessible to T for Agree) is not possible, since this would involve an A'-specifier under an A-specifier, which is excluded by the *improper move/merge* condition (GIM). And as discussed before, a double A-movement structure in the embedded clause (which could also bring the subject in the highest edge position) is not possible for cases where the lowest copy of the subject is pronounced, since A-movement of the object across the base-position of the subject marks the latter with an A-star.

top projection of the embedded phase is different, which has an effect on PTT marking. Only movement to/through Spec, TP incurs a PTT violation if an argument clashes with the PTT value of v+T. The clitic projection does not have a PTT feature, and hence PTT and NON-PTT arguments are equally allowed (without receiving a star). Since the subject in Spec, ClP does not have an A-star (only a potential A'-star), further A-movement is possible, and importantly, the subject can end up in the matrix clause without any star (if there was an A'-star, it would not be carried along under A-movement).



The system thus predicts that FCR constructions are possible with NON-PTT subjects, in cases where a clitic remains in the embedded clause. The example in (85a) shows that this prediction is borne out. A low clitic is possible in a control construction when the subject occurs in the matrix clause in contrast to (83b), repeated as (85b) where the subject occurs in the embedded clause.

The  $\delta$ -CIP structure derives (85a) but could not derive (85b) since, as shown, only the highest position of the subject is star-free. As for the star on the subject in Spec,CIP, I leave again open whether control infinitives involve structural Case for the subject or not. If there is Case, the subject would have no open A-property and would be marked with an A'-star (the fact that the subject later undergoes Merge with v and establishes another argument-of relation is not 'known' to the subject at this point, nor is it encoded in the subject; see (64) and the discussion in section 4.4). However, further A-movement leaves behind A'-stars, and hence no problem arises for the copy in Spec,vP. In this section, I have discussed cases in which the object is a clitic/ $pro_{CL}$ . In the next section, we turn to constructions with non-clitic objects.

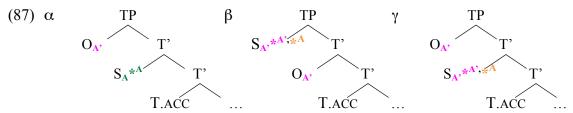
# 5.3.4 The Agree Condition

Object movement of full NPs differs again from object movement of clitic associated  $pro_{CL}$ . Dialect A prohibits movement of a (non-clitic) PTT object, (86a,b), whereas Dialect B allows it, (86c,d). Interestingly, this time Dialect C patterns with Dialect B in allowing movement of PTT objects, as shown in (86e).

- (86) a. \*\frac{Dapat}{\*Maaari}/\*\frac{Puwede}{should/can} \frac{ang diyario}{ptt newspaper C/L} \frac{basah-in}{read-ACC} \frac{ni Miguel}{DET Miguel} \frac{DET Miguel}{(Kroeger 1993: 174, (16a-c); DA]}
  - b. \* <u>Dapat</u>/? <u>Maaari</u> <u>si Manuel</u> <u>na dakpin</u> **ng polis**ought/can PTT Manuel C/L arrest.ACC DET police
    'Manuel should/can be arrested by the police.' [Kroeger 1993: 177, (22a-b); **DA**]
  - c. <u>Dapat</u> ang masamang batang iyan na <u>paluin</u> **ng mga magulang niya** BR ought PTT bad child that C/L spank.ACC DET PL parent 3.SG 'His/her parents ought to spank that naughty child.' [Miller 1988: 29, (18b); **DB**]
  - d. <u>Maaari</u> ang masamang estudyanteng iyan ng <u>paluin</u> **ng guro** BR ought PTT bad stuent that C/L spank.ACC DET teacher 'The teacher can spank that naughty student.' [Miller 1988: 29, (20b); **DB**]
  - e. <u>Nagmukha</u> <u>ang buong hahay</u> na <u>nilinis</u> **ni Fe**appeared.NOM PTT whole house
    'Fe appeared to clean the house.'

[Maclachlan 1996: 226, (32b); Nakamura 2000: 395, (11b); **DC**]

In addition to the movement of the object, we need to also consider the Case licensing of the embedded subject. The above are raising constructions and the subject therefore needs to be in an Agree relation with T. The question is how this relation can be established in cases such as (86) where the object undergoes movement to the matrix clause, and we therefore have again two elements in the embedded Spec,TP. Since the subject is pronounced in its base-position, we only need to look at Derivations  $\alpha$ ,  $\beta$ , and  $\gamma$ .



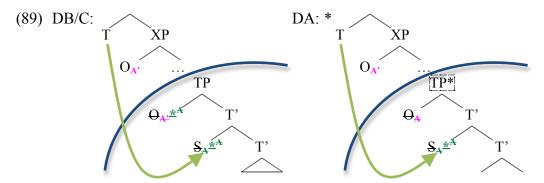
In Derivations  $\alpha$  and  $\gamma$ , movement of the object to the matrix clause would be unproblematic in the sense that the object occurs at the (true) edge of the embedded clause and does not cross any other edge element. However, Case for the subject is less obvious. In the previous section, we have seen that movement from a phase is subject to the *Edge condition* (only the top specifier can move freely; movement of the second specifier yields a penalty on the true edge element). I propose that the same holds for Agree, with one modification, which is subject to a language-specific setting. The *Agree condition* I assume is given in (88). As stated, Agree with the second

specifier is possible, however, it incurs a violation on either the intervening specifier (Dialects B,C) or the phase itself (Dialect A).<sup>37</sup> The latter condition is stronger in that the violation cannot be rescued by choosing a different copy of the intervening phase edge element. The Agree condition then correctly accounts for the variation noted in (86), as well as another case where the dialects differ which I discuss after providing the details for (86).

# (88) Agree condition

- In a configuration [XP=Phase YP ZP X], where ZP {A/A'}-Agrees with a phaseexternal element:
  - YP is marked YP\*{A, A'} (Dialects B,C) XP is marked XP\*{A, A'} (Dialect A) i.

The first (and crucial) case to consider is Derivation  $\alpha$ . As the extended structures in (89) show, in Derivation  $\alpha$ , the object moves to the matrix  $\nu P/VP$  domain (in the examples in (86), the object occurs to the right of the matrix verb, which I assume indicates that it is lower than T). This movement does not yield any star-marking, since the object moves from the true edge position. After T is merged, T Agrees with the subject, which is in the second edge position (see below for derivations which involve movement of the subject). Since this violates the Agree condition, the copy of the object in Spec, TP is marked by a star in Dialects B and C, and the entire TP phase is \*-marked in Dialect A. At PF, this now yields a major difference. In Dialects B and C, the offending copy is deleted, hence the structure is well-formed. In Dialect A, on the other hand, the TP cannot be deleted, and therefore the structure is ruled out.<sup>38</sup>



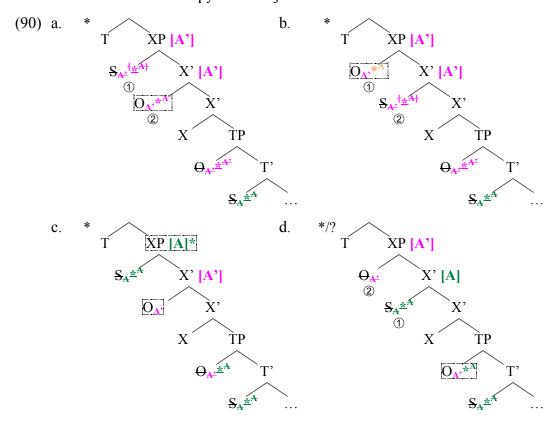
Turning to Derivations  $\beta$  and  $\gamma$ , a note on minimality is in order. I have been assuming in this paper that Case can be valued on NPs in A'-positions. However, one question that this approach raises is whether Case valuation is then an A-relation or an A'-relation with respect to locality. More specifically, the question is which elements count as interveners between the T—NP<sub>A</sub>, dependency. I propose that this is determined by the target of the Agree relation. T itself is not specified for A or A'-hood, but NPs are. Thus, if T Agrees with an NP in an A-position, the

<sup>&</sup>lt;sup>37</sup> The Agree definition I gave in (41) only states that the lower element must be accessible—i.e., it must not have been spelled-out yet—it does not restrict Agree to the highest position at the phase edge. Since neither of the specifiers has been spelled-out yet (on completion of the phase, only the complement of the phase head is spelled-out), Agree can, in principle, be established with any specifier at the phase edge.

<sup>&</sup>lt;sup>38</sup> Once again, the account provided here makes predictions about ellipsis (e.g., ellipsis of TP, if possible, should show a rescuing effect in Dialect A in constructions such as (86)). I have not been able to test such cases.

Agrees with an NP in an A'-position, intervening A'-elements count as offenders. This has some immediate consequences for Derivations  $\beta$  and  $\gamma$ . In both cases, the object undergoes A'-movement to the matrix  $\nu$ P/VP (again below T—cf. the word order) and it thus ends up between T and the subject. When T Agrees with the subject the object receives an A'-star, which survives into PF. The derivations thus fail. In Derivation  $\alpha$  in (89), on the other hand, the object does *not* count as an intervener for Case valuation, since the T—NP<sub>A</sub> Case dependency is an A-dependency (the subject is in an A-position).

While the derivation in (89a) is sufficient to derive the examples in Dialects B and C, to show that these cases are indeed excluded in Dialect A, a couple of additional options need to be considered. Since we have just seen that the Derivations in  $\beta$  and  $\gamma$  are no-goes, only variations of Derivation  $\alpha$  are relevant. Since the major problem in (89) is the Agree dependency with an element too deep in the lower phase, a natural way to try to solve this problem is to have the subject undergo movement to the matrix clause. Since in the examples in (86) the low copy of the subject is pronounced, we don't actually see how high the subject moves and it is therefore possible that the subject occurs in a position higher than the embedded Spec, TP. Four conceivable derivations are given in (90). (90a) and (90b) involve A'-movement of the subject. Since the subject still has an open A-property (unvalued Case, since at the time the subject moves T has not been merged yet), it is marked with an A-star according to (68e). We have seen that dialects differ regarding the timing of this marking, which is why I have put this star in parentheses (since this copy of the subject is not pronounced at PF, the stars are in a sense also irrelevant). If the subject moves before the object as in (90a), the lower copy of the object receives an A'minimality star, which is carried along when the object moves and tucks-in below the subject in the matrix clause. The PF copy of the object hence includes a star.



In (90b) the object moves first, followed by A'-movement of the subject which tucks-in below the object (if it were to move higher than the object, the higher copy of the object would receive a minimality A'-star as in (90a)). Since only the lower copy of the object is crossed by the subject, only that copy receives a minimality star; the higher copy of the object stays minimality-star-free. However, when T is merged and Agrees with the subject, the subject being in an A'-position now makes this an A'-dependency. As a result, the higher copy of the object once again receives an A'-star since it intervenes in the T—NP<sub>A'</sub> Case dependency. This star occurs on the PF copy, hence the derivation is excluded.

The derivations in (90c) and (90d) are trickier. In both cases, the subject continues to move via A-movement. In the structure in (90c), the subject ends up above the object (either by moving across the first moved object, or by moving first and the object tucking-in afterwards). This configuration is excluded by the *improper merge* condition (GIM) I proposed in (66) repeated in (91) for convenience.

# (91) Generalized improper merge (GIM)

 $K_A = \{\gamma, \{\alpha, \beta\}\}\$  is marked  $K_A^*$  if  $K_A$  dominates an object  $K_{A^*}$  which includes as one of its Merge items another instance of one of the Merge items  $\alpha$  or  $\beta$  of  $K_A$ .

The derivation in (90c) is a case of (65b), since the object  $XP_A$  which contains the Merge items  $\{S_A, X'\}$  dominates the object  $X'_{A'}$  which contains the Merge items  $\{O_{A'}, X'\}$ . One item, X' is the same, hence (90c) violates the GIM. Note that the TP in (90c) would not be a problem for the GIM, since, although the TP is an A'-projection which also dominates an instance of the subject, the subject is not a Merge item of the TP (TP =  $\{O_{A'}, T'\}$ ), it is only a Merge item of XP and T', which are both A-projections, hence do not violate the GIM. This is crucial since the GIM is not intended to rule out any intervening A'-projection between two instances of a moved element; it only applies to the select cases given in section 4.4.

This leaves us with the derivation in (90d). The subject undergoes A-movement to the matrix vP/VP first, which yields an A-star on the copy of the object in Spec, TP due to the Edge condition. This A-star, however, is not carried along when the object A'-moves across the subject as indicated. There are no minimality violations, and the A'-object also does not intervene in the T—NP<sub>A</sub> Case dependency, since the subject is still in an A-position. Pronouncing the higher copy of the object should thus lead to a well-formed PF. The problem with this derivation is the same as we have seen in simple clauses where a PTT object moves across a NON-PTT subject. In section 4.2, I proposed that a linearization \*{PTT.OBJECT} » SUBJECT » {PTT.OBJECT} is impossible, but that at PF, in such configurations, the lower copy of the object is to be chosen. If this is done in (90d), as indicated, the lower copy of the object would involve a star, which PF could not tolerate. To pronounce the higher copy of a moved PTT object, special discourse and information structure properties need to be met. I believe that the judgments in (86a,b) reflect this. Even in Dialect A, different types of objects yield a stronger or weaker degradedness, which may be related to how easy it is to interpret the subject as a focus, for instance. Needless to say that it would be of interest to confirm this analysis by further judgments which control for the discourse and information structure properties.

To conclude the discussion of cases such as (86), I proposed that the derivations in (90) are excluded in all dialects, and so are structures involving the basic configurations of Derivations  $\beta$  and  $\gamma$ , and that the only converging derivation is an Agree configuration based on Derivation  $\alpha$ . However, depending on the strictness of the *Agree condition* in a specific language, this option is

restricted to certain dialects.

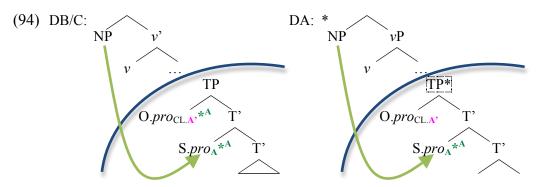
The discussion and derivations given above carry over directly to BCR contexts such as (92), which like the analogous BR constructions in (86) do not allow movement of the object to the matrix clause. In contrast to FR, BCR imposes stricter conditions on the movement of the subject. While the subject in a BR structure can end up in an A'-position (given that Case can get valued in A'-positions; see e.g., (80a)), in BCR, the subject must be in A-positions throughout the derivation since the subject must eventually Merge with  $\nu$  to establish the matrix argument-of relation (which requires an A-configuration). This means that there are fewer derivations to consider for object movement in BCR than we had to for object movement in BR contexts. Derivations  $\beta$  and  $\gamma$  are no options and neither are (90a,b)—in all those cases, the subject is in an A'-position. Furthermore, Derivation  $\alpha$  in (89) without further subject movement is not sufficient, since establishing an argument-of relation cannot be done via Agree, but only by Merge with  $\nu$ . Thus the only way to derive BCR examples such as (92) would via be the derivations in (90c,d), which, as I just argued, are excluded.

Turning to FC constructions, we can observe that there is also some variability across dialects. A specific case which has received different judgments has been given in (36b,c), and I repeat these examples in (93). As shown, movement of a PTT object clitic is impossible in FC constructions in Dialect A, but possible for other speakers (I do not have the information about whether Mercado's example should be included under Dialect B or Dialect C).

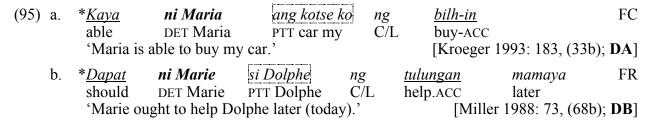
The current analysis, in particular, the different settings of the *Agree condition* account for this contrast. Since the subject occurs in the matrix clause and it does not correspond to the embedded PTT argument, we are dealing with a FC construction here. This means that the embedded subject, pro, must be in an Agree dependency with the matrix controller. Furthermore, the embedded object is a  $pro_{CL}$  associated with a clitic in the matrix clause. Thus, again, there are two elements that need to move to/through the embedded Spec,TP—a subject pro and an object  $pro_{CL}$ . Since the control relation is an A-relation, Derivation  $\alpha$  is the one to consider.

The relevant parts of the structure are given in (94). In Spec,TP, the subject *pro* receives a PTT star, however, since presumably the lower copy of the subject can be chosen at PF (as is possible with overt subjects), this star is eventually harmless. The next step involves Merge of the matrix v and the matrix subject (the overt NP subjects in the matrix clause). The subject then Agrees with the embedded *pro* subject to establish the control relation. Note again, that it is crucial that movement of the object  $pro_{CL}$  cannot yet have happened at this point, thus, the embedded subject is clearly in second position when the Agree relation is established. As proposed above, such 'almost-edge' Agree is possible, but it involves some penalties: in Dialect A, the

whole phase is marked with a star, whereas in Dialects B and C only the higher edge elements are marked with a star. Therefore, in Dialect A, these constructions are excluded since the TP-star cannot be rescued. This conforms to the judgment in (93b), which is from Dialect A. In Dialects B and C, on the other hand, an A-star is assigned to the  $pro_{CL}$  in Spec,TP. Since  $pro_{CL}$  undergoes further movement to matrix Spec,ClP, which can (in this case has to) be A'-movement, the A-star is not copied along, and the derivation ends up without any star at PF. Thus, my prediction is that the judgment in (93a) should track the possibility of movement of a PTT object as in (86).



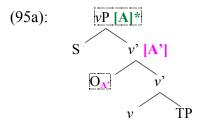
The analysis proposed here also correctly accounts for the impossibility of full NP object movement in FC constructions such as (95a) and FR constructions such as (95b).<sup>39</sup> Although we have seen in (85a) that FCR is possible with NON-PTT subjects, these cases are restricted to contexts where the embedded clause contains a clitic. A FCR analysis is not available for (95a). In (95a), the top projection of the infinitive is TP, and movement of the subject to Spec,TP thus yields an A-star on the subject due to the PTT violation. The PTT A-star must be carried along when the subject A-moves to matrix Spec,vP, hence leading to a problem at PF. Therefore, only a FC derivation is possible in (95a).



The FC example in (95a) is excluded in part on the same grounds as (93b)/(94) in Dialect A: the embedded *pro* subject must Agree with the matrix controller, which means that *pro* must be in an A-position in Spec,TP, and the embedded object also must move to Spec,TP to further move to

<sup>&</sup>lt;sup>39</sup> The example in (95a) is from Dialect A and I do not have specific information about such examples in Dialects B and C. However, Mercado (2003) notes (see also fn. 7) that interclausal object movement is only possible in the V2»SUBJECT order. Although he does not provide actual data, we can infer from this statement that examples such as (95a) should be excluded in his dialect, which, as we have seen in (93a), corresponds to one of the more lenient dialects B or C. Furthermore, the raising example in (95b) is from Dialect B, and the impossibility of object movement in this context (in sharp contrast to examples such as (86c,d) from the same dialect) indicates that the ungrammaticality is not dialect specific in (95).

the matrix clause. The only derivation that meets these conditions is Derivation  $\alpha$ , and the same Agree problem then arises as in (94). However, the example also poses a problem for the other dialects. Since the moved object occurs to the right of the matrix subject, it must have tucked-in below the matrix subject (see the diagram below). Since the object can only have moved there via A'-movement,<sup>40</sup> this structure constitutes an *improper merge* configuration, exactly like (90c), and is thus predicted to be excluded in all dialects.



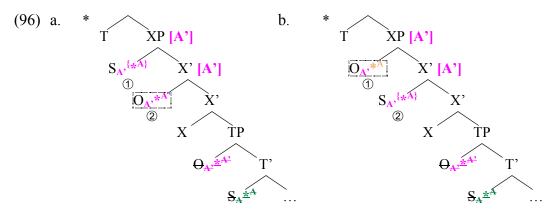
The impossibility of object movement in the raising construction in (95b) has similar reasons. We can note first (see Consequence C) that the first step of movement of the subject to the embedded Spec, TP must be A-movement. In Spec, TP, the subject acquires a PTT star, and to not drag this star along, the next step of movement should be different. Since A-movement after A'-movement is not possible (cf. the GIM condition), the only configuration that will allow the subject to be star-free at PF is a derivation in which the subject undergoes A-movement to Spec, TP, followed by A'-movement to the matrix clause (i.e., exactly as we have seen in (75) in section 5.2.3 where movement of NON-PTT subjects was discussed at length). Second, we can restrict movement of the object to A'-movement. The reason for that is the impossibility of Derivation  $\delta$ , that is, a derivation where both subject and object undergo A-movement. The main trouble with such a derivation is that the object, an NP without an open A-property, would be marked with an A'-star which is not rescue-able (it is either carried along under A'-movement or re-assigned under another step of A-movement). In essence, this was stated as Consequence D: In cases where the subject is pronounced in a derived position and the object is not a clitic associated  $pro_{CL}$ , only Derivation  $\alpha$  leads to a convergent PF.

Having clarified the embedded structure of (95b)—namely Derivation α—the next step is to determine what the further movement options are. To do this it is helpful to consider the derivations given in (90) again. Two of them can be excluded immediately: the derivations in (90c,d) involve A-movement of the subject to the matrix clause, which, as I just pointed out, is not going to help rescue the PTT star of the object assigned in Spec,TP. The only possible way to void this star is by the subject undergoing A'-movement (note that in these examples, in contrast to the ones we discussed before, the copy chosen at PF is the high copy, thus the landing site needs to end up star-free). I repeat the remaining two derivations here, and as the reader can see, both derivations in (96) fail. As before, I put the A-star a subject receives when it is not yet Case valued but appears in an A'-position in parentheses, since this star does not occur in all dialects. But this star is not the problematic one. It is the object in both derivations that causes the structures to fail, hence leading to a problem in all dialects. In (96a), the two higher copies of the object are marked with an A'-star due to the minimality and/or *Edge condition* violation arising when the

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<sup>&</sup>lt;sup>40</sup> Recall that movement of the object to Spec,TP must be A'-movement, since A-movement would assign a minimality star to the base-position of the embedded *pro* subject. Since the higher copy of the embedded *pro* subject in Spec,TP also includes a star—the PTT star—there would be no copy of the embedded subject that is star-free.

subject moves across the object in Spec,TP. Since it is an A'-star, further A'-movement of the object does not remedy the situation. In (96b), the object moves out of the TP first, thereby allowing the higher copy of the object to be star-free (at least for a short time) when the object moves (the minimality/Edge condition star is only assigned to the lower copy of the object when the subject moves and tucks in below the higher copy of the object). The problem in this derivation, however, is that the object comes to sit between T and the subject. As discussed above, since Case valuation is between T and an NP in an A'-position, other A'-elements intervene in this dependency and get marked with an A'-star.



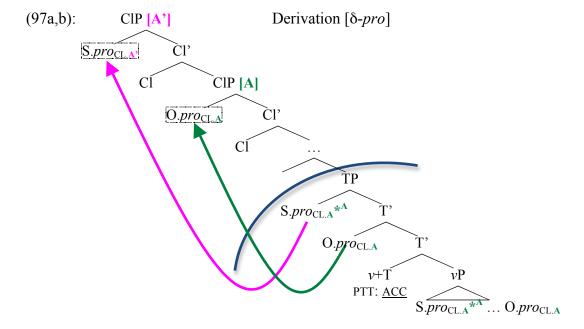
Thus, the account correctly excludes examples, in which the subject and the object are full NPs (and not clitics; see below for the latter) and where both the subject and the object overtly move to the matrix clause. This is a very pleasing result, since such constructions are excluded in all dialects, particularly also in Dialect B, the dialect that independently allows movement of a NON-PTT subject ((95b) is possible when only the subject moves), and movement of a PTT object (again, (95b) would be fine if only the object moves). The theory advanced here provides an account for why these movements are possible when occurring alone, but put together the system has no way to derive a configuration which involves movement of both arguments.

In the above discussion, I have been careful to note that movement of both arguments is only excluded when no clitics are involved. As shown in (97a,b), movement of subject and object is possible when both arguments are associated with clitics in the matrix clause.

The main clue to understanding the difference between clitic constructions and full NP constructions has already been given as Consequence E: A derivation in which both subject and object undergo A-movement from their base-positions is only possible if the object is  $pro_{CL}$ . The main problems for constructions in which both subject and object NPs move to the matrix clause were

that either an *improper merge* (GIM) configuration was derived or minimality effects arose due to the object being in an A'-position after the first step of movement. As shown in section 5.3.2, when clitics are involved, another derivation becomes available, namely Derivation  $\delta$ -pro, given in detail below for (97a,b).<sup>41</sup>

The steps of the derivation are as follows. First, the subject moves to Spec, TP, where it receives a PTT star since it clashes with the PTT value of the verb. Second, since the subject is not pronounced in the lower position, A-movement of the object across the base-position of the subject is possible (it yields a star on the base copy of the subject, but this star is irrelevant if that copy is not used at PF). Note that a procl, whether it has an unvalued Case feature or not, is possible without penalties in either an A- or an A'-position (see section 4.3.3 for a discussion of the mixed A/A'-properties of clitic associated pro<sub>CL</sub>). Thus, the object pro<sub>CL</sub> in Spec,TP does not receive any star. In the further derivation, the actual object clitic is merged in the matrix clause, and the object procl moves to the specifier of that Cl head via A-movement. Since it moves across a higher phase specifier, the subject procl at the true edge position, that subject procl receives another A-star (however, as mentioned above, stars of the same type are not counted; I therefore only note one A-star here). Lastly, the subject clitic is merged and the subject proci moves to the higher Spec, CIP via A'-movement. A'-movement is crucial, since first, it does not copy along the A-star from Spec, TP, and second, no minimality effect is triggered by the proci in the lower Spec, CIP which is crossed. Since there are no PF copies with stars, once again a satisfied PF has been created.



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<sup>&</sup>lt;sup>41</sup> The derivation for the FCR construction in (97c) would involve another step of A-movement by the subject to Spec, $\nu$ P (to establish the matrix subject relation) before it undergoes A'-movement to Spec,ClP as in the derivation for (97a,b). This would mean that the intermediate copies of the subject  $pro_{CL}$  collect more A-stars, since they are being crossed by A-movement of the object  $pro_{CL}$ , but these A-stars are not copied along when the subject  $pro_{CL}$  undergoes A'-movement, resulting in the same output as the raising variants.

# 6. SUMMARY AND BROADER CONSEQUENCES

In this paper I have provided a detailed an explicit account of movement from infinitives in Tagalog. Previous accounts of Tagalog infinitives have worked on the basis that Tagalog infinitives involve restructuring. I have shown that these approaches leave various questions open and also do not situate Tagalog well in the cross-linguistic world of restructuring. Instead I have proposed a subject movement analysis which can take the form of backward raising in that it is possible to pronounce the lower copy of the moved subject. I have also distinguished between three dialects of Tagalog, and provided an account that derives the speaker variation noted in the literature (the different settings for the different dialects are given in the conditions summarized below).

To account for the distribution of movement from infinitives, which shows speaker variation as well as important differences regarding the types of elements extracted, I proposed a new way of deriving voice marking and the restrictions related to voice marking. The main claim was that voice marking is a property of v, which is established between v and an argument A-merged in Spec,vP via Agree. While this paper has not addressed the question of whether Tagalog shows an ergative or nominative-accusative Case alignment, the analysis proposed was developed within a nominative-accusative system. Lastly, voice related extraction restrictions have been attributed to a voice matching requirement arising in TP, which, due to v+V-to-T movement is a phasal projection in Tagalog, and hence movement must proceed through Spec,TP.

The theoretical toolbox I used involved phase extension, the option of rescuing syntactic violations via PF deletion, and various locality conventions (formalized via \*-marking assignment rules), which are summarized in (98) to (101). One important consequence of the analysis in this paper is that it provides further support for the claim that only the topmost specifier of a phase can be extracted or Agreed with—i.e., multiple specifiers are not equidistant from a higher position. However, in contrast to other works, these conditions (formulated here as the *edge condition* and *Agree condition*) are not a rigid restrictions but can be violated in the sense that violations can be ignored if certain elements are not pronounced at PF. While the account obviously involved several assumptions, some of which may be more-liked than others, and was rather technical in places, I take it as a promising outcome that, so far, the account has the right balance between being lenient enough to allow various alternations (as such, I think it is possible to extend the system to other languages), but the system is also tight enough to make some clear predictions, many of which I have shown to be borne out. There are further predictions I noted but which I have not been able to test yet.

# (98) Generalized improper merge (GIM)

 $K_A = \{\gamma, \{\alpha, \beta\}\}\$  is marked  $K_A^*$  if  $K_A$  dominates an object  $K_{A^*}$  which includes as one of its Merge items another instance of one of the Merge items  $\alpha$  or  $\beta$  of  $K_A$ .

### (99) Edge condition

X, X a specifier of a phase head, is marked  $X^{*\{A, A'\}}$  if X is crossed by  $\{A, A'\}$  movement of Y, Y a specifier of the same phase head.

# (100) Agree condition

- In a configuration [XP=Phase YP ZP X], where ZP {A/A'}-Agrees with a phaseexternal element:
  - YP is marked YP\*<sup>{A, A'}</sup> (Dialects B,C) XP is marked XP\*<sup>{A, A'}</sup> (Dialect A) i
- (101) X with an open A-property in an A'-position is assigned  $X^{*A}$  at the point when:
  - X Merges (Dialects A,C)
  - ii. when the phase containing X is complete (Dialect B)

As a broader consequence, if the account provided for Tagalog is on the right track, the question of why/how BR is restricted cross-linguistically can be approached. A typical pair of B(C)R/F(C)R in Tagalog is given in (102). In (103) and (104), I provide FR and BR examples for Adyghe and Standard Arabic, respectively. As shown in all three languages, the choice of copy has a morphological reflex (beyond the position where the subject is pronounced). In Tagalog, the PTT marking changes; in Adyghe, the Case is different (absolutive vs. ergative); and in Standard Arabic, the agreement on the verbs is different (there is full agreement—cf. the FEM.PL marking—in the FR case, but on partial agreement—FEM with default singular—in the BR case).

- (102)a.Kaya ni Manuel ng bagong kotse FC(R) na bumili DET Manuel C/L NOM.buy DET new car 'Manuel is able to buy a new car.' [Kroeger 1993: 182, (29a)]
  - ng bagong kotse b. Kaya = ngbumili si Manuel BCR able C/L NOM.buy PTT Manuel DET new car 'Manuel is able to buy a new car.' [Kroeger 1993: 182, (29b)]
- (103)a.axe-r axe-me pjəsme-r a-txə-new ø-fjež 'aве-х FR they-ABS [ they-ERG letter-ABS 3PL.ERG-write-INF ] 3ABS-began-3PL.ABS [P&P 2012: 78; simplified] 'They began to write a letter.'
  - axe-r[ axe-mepjəsme-ra-txə-new]they-ABS[ they-ERGletter-ABS3PL.ERG-write-INF] b. ø-fjež 'aве-х BR 3ABS-began-3PL.ABS 'They began to write a letter.' [P&P 2012: 78; simplified]
- l-t \a:liba:t-u (104)a.FR aw fakna (?an) yanjaħna the-students.F.PL-NOM were.about.to.3.F.PL (C/to) succeed.3.F.PL 'The female students were about to succeed' [Haddad 2012, p.c.]
  - l-t \a:liba:t-u b. ?aw sakat (*?an*)  $tanja\hbar(u/a)$ BRCP/TP were.about.to.3.F.SG CP/TP succeed.3.F.SG the-students.F.PL-NOM ] (C/to) 'The female students were about to succeed' [Haddad 2012, p.c.]

The hypothesis that arises from this distribution is given in (105):

## (105) BR vs. FR Hypothesis:

PF linearization: Pronounce highest copy (unless...)

Only languages in which the choice of PF copy has an effect at PF (beyond which copy is pronounced) allow BR.

P&P (2012) point out that cross-linguistically, BR is much rarer than FR. Given (105), this is expected. Overtly indicating a movement dependency is the universal default procedure, and only special properties and constellations allow the BR option. The study of Tagalog provided here has shown, however, that perhaps the phenomenon of BR is more-widespread than what we know so far. Given that Tagalog has been analyzed as restructuring before, it may well be that certain restructuring phenomena in other languages (in particular phenomena that do not involve any voice dependencies between the matrix and embedded predicates) display BR rather than restructuring.

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