

## Phase-based Account of Extraction in Indonesian

Edith Aldridge

### Abstract

This paper presents an analysis of the restriction in standard Indonesian that only subjects are allowed to undergo A'-extraction. The specific proposal, grounded in the Theory of Multiple Spell-Out, is that the feature bundle inserted in  $v$  and spelled out as the active prefix *meN-* cannot include an EPP feature, thereby preventing objects from moving out of VP in active clauses. This paper further explores the deeper motivation for this restriction and shows that *meN-* is a historical remnant of an earlier antipassive marker. This allows some seemingly anomalous aspects of Indonesian syntax to be integrated into a broader analysis of ergativity and Austronesian typology.

**Keywords:** phase; A'-movement; ergativity; antipassive; Austronesian; variation

### 1. Introduction

Since Chomsky's (1973) proposal of the Subjacency Condition, movement is known to take place cyclically. Long distance *wh*-movement, for instance, proceeds through the specifier of every CP along the path of movement. Indirect evidence for the intermediate landing site is provided by *wh*-island effects. Movement from the embedded clause is blocked when the lower [Spec, CP] is filled by another *wh*-word, as shown in (1b).

- (1) a. When<sub>i</sub> do you think [<sub>CP</sub>  $t_i$  [<sub>TP</sub> Mary bought that CD  $t_i$  ] ]?  
b. \*When<sub>i</sub> do you wonder [<sub>CP</sub> what<sub>j</sub> [<sub>TP</sub> Mary bought  $t_j$   $t_i$  ] ]?

Some languages provide more direct morphological evidence for the cyclic nature of movement. When *wh*-movement takes place in Irish, the complementizer *aL* appears in every C into whose specifier a *wh*-phrase has moved.

- Irish (McCloskey 2002:185)
- (2) cuid den fhilíocht [a chualáí ag do sheanmháthair  
some of-the poetry *aL* heard.2s by your grandmother  
á rá [a cheap an sagart úd  $t$  ]  
being-said *aL* composed the priest Demon  
“some of the poetry that you heard your grandmother say was composed by the priest”

In the theory of Multiple Spell-Out, Chomsky (2000, 2001, 2004) has proposed that such movement proceeds not only through CP, but also through  $vP$ . Evidence for movement through [Spec,  $vP$ ] is less obvious, but recent work on A'-extraction in the Austronesian language Tagalog has drawn a connection between verbal morphology and

the possibility of a VP-internal DP moving to the edge of vP (Aldridge, 2004a, 2005; Rackowski, 2002, Rackowski and Richards, 2005). Depending on the affix on the verb, a different argument appears with *ang* case-marking: *-in-* for a direct object; *-an* for a goal, locative, or indirect object; *i-* for a benefactive or instrumental argument; and *-um-* for a subject. This correspondence is summarized in the appendix.

- Tagalog
- (3) a. **B-in-ili** ng babae ang isda.  
 -TR.PERF-buy ERG woman ABS fish  
 “The woman bought the fish.”
- b. **B-in-ilh-an** ng babae ng isda  
 -TR.PERF-buy-APP Erg woman OBL fish  
 ang tindahan=ko.  
 ABS store=1SG.GEN  
 “The woman bought a/the fish at my store.”
- c. **I-b-in-ili** ng babae ng isda  
 APP-TR.PERF-buy ERG woman OBL fish  
 ang lalaki.  
 Abs man  
 “The woman bought the fish for the man.”
- d. **B-um-ili** ang babae ng isda.  
 -INTR.PERF-buy ABS woman OBL fish  
 “The woman bought a fish.”

It is this *ang*-marked nominal which is eligible to undergo A'-extraction. The object can move in a transitive clause, as in (4a), but not the subject, as in (4b). In order to extract the external argument, the clause must be antipassivized, as in (4c). Note the appearance of intransitive morphology on the antipassive verb. (4d) shows that the oblique *ng*-marked object cannot be extracted in an antipassive. Extraction of an applied object requires the applicative affix, as shown in (4e) and (4f).

- Tagalog
- (4) a. Ano ang **b-in-ili** ng babae?  
 what ABS TR.PERF-buy ERG woman  
 “What did Maria buy?”
- b. \*Sino ang **b-in-ili** ang isda?  
 who ABS TR.PERF-buy ABS fish  
 “Who bought the fish?”
- c. Sino ang **b-um-ili** ng isda?  
 who ABS -INTR.PERF-buy OBL fish  
 “Who bought the fish?”
- d. \*Ano ang **b-um-ili** ng babae?  
 what ABS -INTR.PERF-buy ERG woman  
 “What did Maria buy?”

- e. Sino ang i-b-in-ili ng babae ng isda?  
 who ABS APP-PERF-buy ERG woman OBL fish  
 “Who did the woman buy a fish for?”
- f. \*Sino ang b-in-ili ng babae ng isda?  
 who ABS -PERF-buy ERG woman OBL fish  
 “Who did the woman buy a fish for?”

Similar extraction asymmetries are found in other Austronesian languages, including standard Indonesian. It is typically the case that only subjects can undergo A'-extraction. (5a) shows a transitive declarative clause, with SVO word order. The external argument subject can be extracted from an active clause, when the verb carries the *meN-* prefix, as shown in (5b). The internal argument cannot be extracted when the verb is prefixed with *meN-*, as shown in (5c). A DP internal argument can be extracted from a passive, when this DP has subject status, as in (5d).

#### Indonesian

- (5) a. Ali **mem**-beli buku.  
 Ali ACT-buy buku  
 “Ali bought a book.”
- b. Siapa yang **mem**-beli buku-nya?  
 who C ACT-give book-DEF  
 “Who bought the book?”
- c. \*Apa yang Ali **mem**-beli?  
 what C Ali ACT-buy  
 “What did Ali buy?”
- d. Apa yang **di**-beli (oleh) Ali?  
 what C PASS-buy by Ali  
 “What was bought by Ali?”

The primary goal of this paper is to propose an analysis of the extraction asymmetry in Indonesian, which correlates verbal morphology with the ability of *v* to carry an EPP feature. However, this analysis is part of a broader historical and typological approach to aspects of ergative syntax in Western Austronesian languages. I begin, therefore, with an analysis of the ergative language Tagalog, in order to establish the general framework for approaching this problem. In this way, then, a secondary goal of this paper is to place the extraction restriction in Indonesian in the broader typological and historical context of ergativity in Western Austronesian languages. The historical claims made here are also grounded in recent Minimalist approaches to syntactic variation and change as involving the featural make-up of lexical items, particularly functional elements (Chomsky, 1995, 2000; Longobardi, 2001; Roberts and Roussou, 2003; Whitman, 2000; and others).

## **2. Extraction and EPP**

In the theory of Multiple Spell-Out (Chomsky, 2000, 2001, 2004), the derivation takes place cyclically, phase by phase, with CP and *v*P (minimally) designated as phases. In mapping to the phonetic representation, the sister (domain) of the phase head is spelled

out first (Chomsky 2004). The edge of the phase, i.e. its head and specifiers, remain accessible until the domain of the next phase head is spelled out. Therefore, for movement to take place from a phase, the constituent to be moved must be located in the edge of that phase. Movement from a lower position would violate the Phase Impenetrability Condition.

(6) Phase Impenetrability Condition (Chomsky 2004)

Only the edge of a phase ( $vP$ ,  $CP$ ) is accessible to operations.

Since movement in the Minimalist Program is assumed to be feature-driven, the phase head must carry an appropriate feature to trigger this movement. The feature on  $v$  for movement of a direct object could be an EPP feature or, more specifically, an operator feature or a strong D feature.

(7) What did you [ $vP$   $t_{\text{what}}$  [ $v'$   $t_{\text{you}}$  [ $v[D^*]$  [ $vP$  eat  $t_{\text{what}}$  ]]]]?

Chomsky assumes that EPP features are generated on  $v$  when needed or when movement has an effect on interpretation. However, the extraction asymmetry in Austronesian languages seems to suggest that this cannot be the case in all languages. What I propose for these languages is that  $v$  is prevented from carrying an EPP feature in certain circumstances: in intransitive (antipassive) clauses in ergative languages like Tagalog; and clauses when the verb takes the *meN-* active prefix in Indonesian.

2.1. *Extraction in an Ergative Language*

Tagalog is a VSO ergative language. Case-markers *ang* and *ng* mark absolutive and ergative case, respectively. Ergative DPs appear in immediate post-verbal position in neutral word order. There is no fixed position for the absolutive, this DP tending to appear in its thematic base position. The transitive and intransitive examples in (8) display the ergative case-marking pattern, as well as the *-in-* and *-um-* transitive and intransitive markers of perfective aspect.

- Tagalog
- (8) a. **B-in-ili**            *ng*    *babae*    *ang*    *isda*.  
 -TR.PERF-buy    ERG    woman    ABS    fish  
 “The woman bought the/\*a fish.”
- b. **D-um-ating**            *ang*    *babae*.  
 -INTR.PERF-arrive    ABS    woman  
 “The woman arrived.”

Extensive evidence has been put forth for an ergative analysis of Tagalog syntax (De Guzman, 1988; Gerdts, 1988; Liao, 2004; Payne, 1982). Even among dissenters, there is general consensus that ergative clauses such as (8a) are transitive and not passive (Kroeger, 1993; Maclachlan, 1996; Maclachlan & Nakamura, 1997; Schachter, 1976, 1994; Shibatani, 1988). This is clear from the fact that the ergative DP functions as a subject and not as a demoted oblique. The ergative DP can bind an absolutive reflexive,

serve as an imperative addressee, and be the position for controlled PRO in a nonfinite clause.

Tagalog

- (9) a. P-in-igil                    ng    lalaki   ang   sarili=niya.  
 -TR.PERF-control    ERG    man    ABS    self=3SG.GEN  
 “The man controlled himself.”
- b. Bigy-an=mo=siya                    ng    kape.  
 give-APP=2SG.ERG=3SG.ABS    OBL    coffee  
 “Give him/her the coffee.”
- c. Nag-ba-balak                    ang    babae-ng [PRO tulung-an ang    lalaki]  
 INTR.PERF-RED-plan    ABS    woman-LK (ERG)    help-APP    ABS    man  
 “The woman is planning to help the man.”

The A'-extraction restriction in this type of ergative language<sup>1</sup> is accounted for as follows: transitive *v* is allowed to carry an EPP feature, while intransitive (including antipassive) *v* cannot. When *v* carries an EPP feature, the absolutive DP raises to the *v*P phase edge, where it is visible to a probe in the next higher phase and eligible to undergo further movement, e.g. to [Spec, CP]. Transitive *v* also carries a structural absolutive case feature, which it checks and values with the highest DP in its c-command domain. In intransitive clauses, it is T which checks absolutive case.

(10) *v*-Type Ergativity

- v*<sub>Tr</sub>:    [*u*Case:Abs] feature to value with a DP in its c-command domain.  
 Inherent ergative case to assign to the external argument.  
 [D\*] feature to draw the absolutive DP to the *v*P phase edge.
- v*<sub>Intr</sub>:    No case feature.  
 No [D\*] feature.
- T<sub>Fin</sub>:    [*u*Case:Abs] feature in intransitive clauses.

T has an absolutive case feature exactly when *v* is intransitive by means of selection between finite T and *v*. Finite T with an absolutive case feature must select an intransitive *v*; it cannot select a transitive *v*.

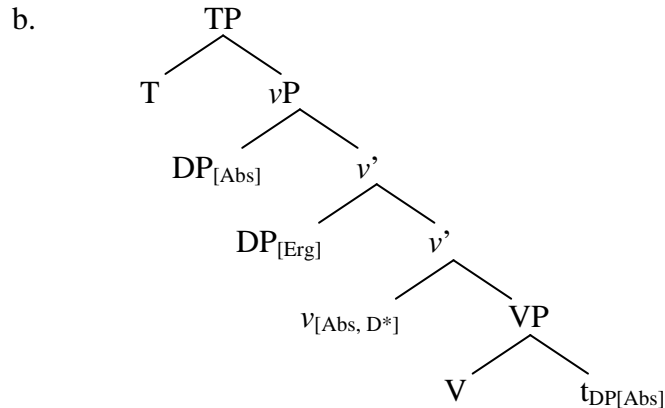
The following examples illustrate how the system works. In a transitive clause, *v* checks the case feature of the direct object and values it as absolutive. The absolutive DP then raises to the *v*P phase edge to check the EPP feature on *v*. This places the absolutive object in the *v*P phase edge and makes it visible to a probe in the next highest phase, e.g. a [wh] or operator feature on C<sup>2</sup>. In this way, we derive the apparent correspondence

<sup>1</sup> Aldridge (2004a) proposes that there are two types of syntactic ergativity. Minimally, Tagalog and Inuit languages belong to the *v*-type. In the other type, T-type ergative languages, absolutive case is checked uniformly by T. The analysis of *v*-type ergativity is based on Aldridge (1998), which, to my knowledge, is the earliest analysis of ergativity in which absolutive case licensing is divided between the subject and object case positions. See also Legate (2002) for a similar analysis of Warlpiri.

<sup>2</sup> In point of fact, it is only the absolutive object which can be extracted. Although it is located in the *v*P, the ergative DP cannot be moved over the absolutive. This is surprising, if we assume that both specifiers of *v*P are equidistant from C. However, there is a recent trend away from such employment of the notion

between basic transitive morphology on the verb and absolutive case on the direct object.

- (11) a. Tagalog  
 Ano ang b-in-ili ng babae?  
 what ABS TR.PERF-buy ERG woman  
 “What did Maria buy?”



In an applicative construction, it is the applied object which can be extracted. In the general vein of Pylkkanen (2002), applied objects are merged in the specifier of an applicative functional projection located between  $v$  and VP. This results in the applied object being in a structurally more prominent position than the theme DP. It is, therefore, the applied DP which checks absolutive case with transitive  $v$  and is raised to the outer specifier of  $vP$  by the EPP feature on  $v$ . The theme receives inherent case from the lexical verb.

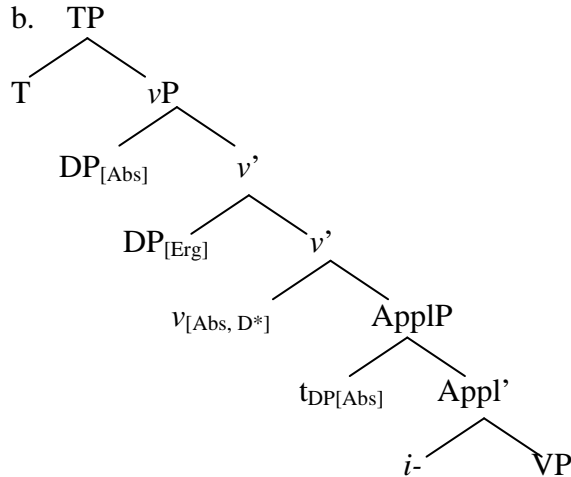
- (12) a. Tagalog  
 Sino ang i-b-in-ili ng babae ng isda?  
 who ABS APP-PERF-buy ERG woman OBL fish  
 “Who did the woman buy a fish for?”

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of equidistance (Fox and Pesetsky, 2005; Rackowski and Richards, 2005; among others). For example, if we consider the approach in Rackowski and Richards (2005), they ensure that only the highest (closest) specifier in  $vP$  can enter into an Agree relation with a probe on C with the following definition of ‘closest’.

A goal  $\alpha$  is the closest one to a given probe if there is no distinct goal  $\beta$  such that for some X (X a head or maximal projection), X c-commands  $\alpha$  but does not c-command  $\beta$ .

This, then, effectively prevents extraction of the ergative DP over the absolutive.

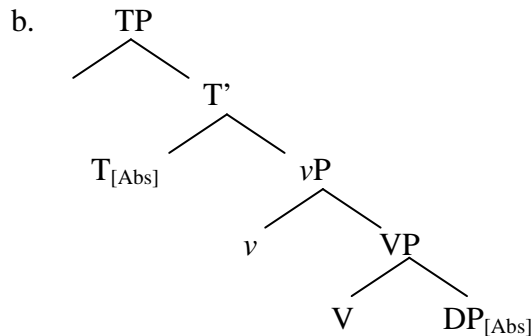


Since Appl selects the applied argument, we derive the correspondence between the appearance of the applicative morpheme on the verb and absolutive status of the applied DP.

In an intransitive clause, absolutive case is checked and valued by T. If we assume with Chomsky (2001) that unaccusative, including passive,  $\nu$ P is a weak phase, then T can probe down into VP without violating the Phase Impenetrability Condition.

Tagalog

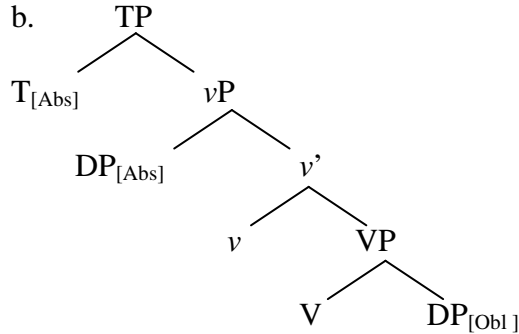
- (13) a. Sino ang d-**um**-ating?  
 who ABS -INTR.PERF-arrive  
 “Who arrived?”



A semantically transitive clause with intransitive morphology on the verb is an antipassive. Since antipassives are formally intransitive, T values absolutive case on the external argument. The object receives inherent oblique case from the verb. Intransitive  $\nu$  also has no EPP feature, so the object remains in its base position in VP. Since the object remains in its base position inside VP, the external argument is the only DP in the  $\nu$ P phase edge and therefore the only DP eligible to undergo A'-extraction.

Tagalog

- (14) a. Sino ang b-um-ili ng isda?  
 who ABS -INTR.PERF-buy OBL fish  
 “Who bought a/the fish?”



Since intransitive morphology like *-um-* does not carry a case feature as part of its feature bundle and therefore absolutive case must be checked by T in intransitive clauses, absolutive case will always be valued on the highest DP in the clause. This derives the correspondence between intransitive verbal marking and the appearance of absolutive case on a subject.

Since the limitation on EPP features on *v* applies only to strong [D] features, fronting of non-DPs is predicted to be free in Tagalog. This prediction is borne out, as shown by the *wh*-movement of an adverb and the focus fronting of a PP in the following examples.

Tagalog

- (15) a. Saan=ka b-um-ili ng libro?  
 where=2SG.ABS -INTR.PERF-buy OBL book  
 “Where did you buy books?”
- b. Kay Maria=ko i-bi-bigay ang bulaklak.  
 to Maria=1SG.ERG APP-RED-give ABS flower  
 “I will give the flowers *to Maria*.”

The preceding analysis of the A'-extraction restriction serves to anchor the analysis of Tagalog in the broader typology of ergative syntax. It is well known that, in syntactically ergative languages, absolutives are the only DPs able to undergo A'-movement operations like relativization and *wh*-movement<sup>3</sup> (Bittner, 1994; Campana 1992; Dixon, 1979, 1994; England, 1983; Manning, 1996; Payne, 1982; among many others). An example is given below for Mam, Mayan. Transitive patients, as in (16a), but not transitive agents, as in (16b), can be extracted in constituent questions. In order to extract a transitive agent, the clause must be antipassivized, as in (16c).

<sup>3</sup> Keenan and Comrie (1977) identify eleven languages, which they claim allow only “subjects” to undergo relativization. The problem with the designation of this grammatical function as subject (and not absolutive) is that nine of those eleven languages are Austronesian, which can be shown to either be ergative or to have remnant features of ergative syntax. Given also that Dixon’s (1994) tests for syntactic ergativity include the absolutive restriction in relativization, it is safe to assume that, in general, the restriction that only one grammatical function can undergo A'-extraction is a feature of syntactic ergativity.



- Mam (England 1983:250-1)
- (16) a. alkyee-qa x-hi tzaj t-tzyu-7n Cheep  
 who-PL REC.DEP-3PL.ABS DIR 3SG.ERG-grab-DS Jose  
 “Whom did Jose grab?”
- b. \*alkyee saj t-tzyu-7n kab’ xiinaq  
 who REC.DEP.3SG.ABS.DIR 3SG.ERG-grab-DS two man  
 “Who grabbed the men?”
- c. alkyee saj tzyuu-n ky-e kab’ xiinaq  
 who REC.DEP.3SG.ABS.DIR grab-AP 3PL-RN two man  
 “Who grabbed the men?”

Note further that this restriction does not apply to adjuncts.

- Mam (England 1983:252)
- (17) a. *ma kub’* t-tx’ee7ma-n Kyel tzee7  
 REC 3SG.ABS.DIR 3SG.ERG-cut-ds Miguel tree  
 [<sub>PP</sub> t-u7u maachit]  
 3SG-RN/INST machete  
 “Miguel cut the tree with a machete.”
- b. [<sub>PP</sub> al u7u] x-kub’ t-tx’ee7ma-n Kyel  
 what RN/INST REC.3SG.ABS.DIR 3SG.ERG-cut-DS Miguel  
 tzee7  
 tree  
 “With what did Miguel cut the tree?”

The change in the aspect marker which precedes the main verb in (17b) indicates that the verb is in the dependent form. Fronted constituents are often followed by dependent verb forms. This does not, however, reflect a change in the grammatical status of the PP. In both (17a) and (17b), *Miguel* and *tzee7* ‘tree’ have ergative and absolutive status, respectively, as indicated by the agreement markers in the verbal complex and by the absence of prepositional or inherent case markers on the nominals themselves. Therefore, it is not the case that the instrument has been promoted to absolutive status in (17b).

## 2.2. Indonesian Analysis

The extraction asymmetry in Indonesian can similarly be accounted for by limiting the appearance of EPP features on *v*. Indonesian is essentially an accusative language, with nominative and accusative case being checked in the usual way by T and transitive *v*, respectively. The inability of objects in active clauses to move out of VP is accounted for by prohibition of an EPP feature on active *v*. Passive *v* is treated essentially as a weak, unaccusative phase head, with no case or EPP features.

(18) Indonesian

$v_{Act}$ : [ $uCase:Acc$ ] feature to value with a DP in its c-command domain.  
No [ $D^*$ ] feature.

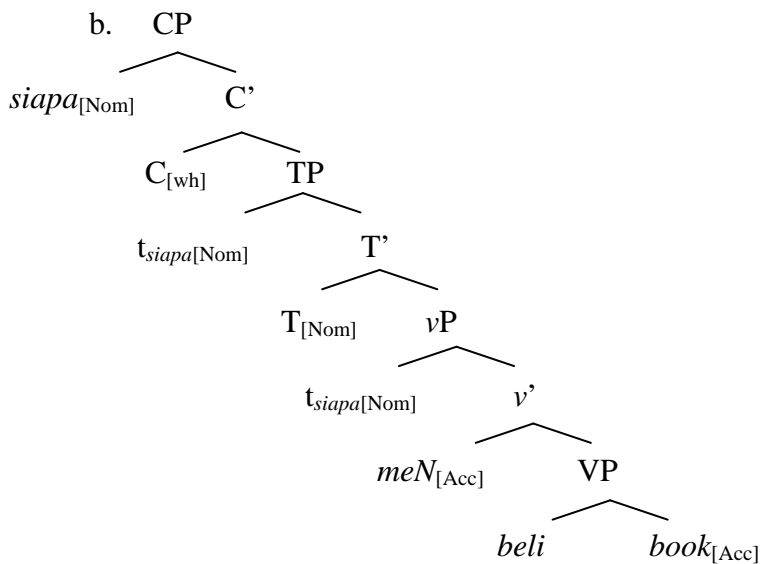
$v_{Pass}$ :

$T_{Fin}$ : [ $uCase:Nom$ ] feature to value with a DP in its c-command domain.  
[ $D^*$ ] feature to draw the subject to [ $Spec, TP$ ].

To take an example, (19) shows the derivation of subject extraction from an active clause. T and  $v$  check and value the case features of the subject and object, respectively. Since Indonesian is an SVO language, T additionally has an EPP feature, drawing the subject to its specifier<sup>4</sup>. Located in the same phase, the subject is accessible to the probe on interrogative C and can undergo movement to [ $Spec, CP$ ].

Indonesian

- (19) a. Siapa yang mem-beli buku-nya?  
who C ACT-give book-DEF  
“Who bought the book?”



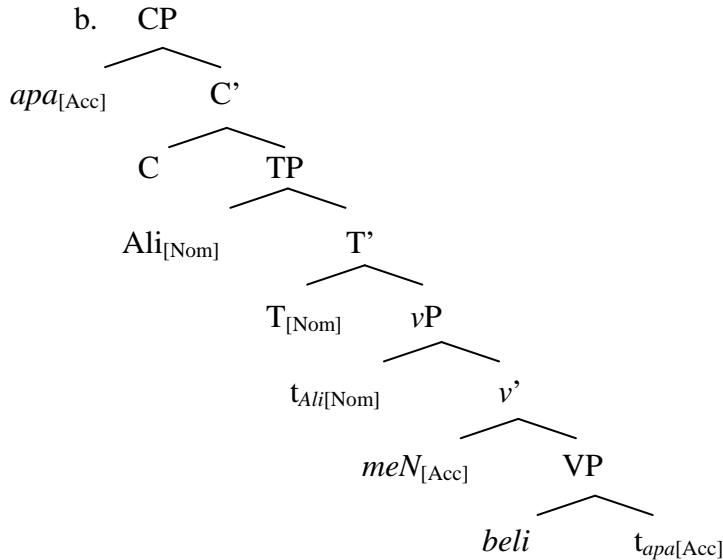
Movement of the direct object from an active clause is ungrammatical, as shown in (20). This is accounted for by the inability of active  $v$  to host an EPP feature to draw the object to its specifier. Since the object remains in its base position inside VP and does not raise to the  $vP$  phase edge, it will not be accessible to a probe on C and therefore will be unable to move to [ $Spec, CP$ ] without violating the Phase Impenetrability Condition.

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<sup>4</sup> Aside from SVO word order, weak cross over effects cited by Soh (1998) provide additional evidence that Indonesian subjects undergo A-movement to [ $Spec, TP$ ].

Indonesian

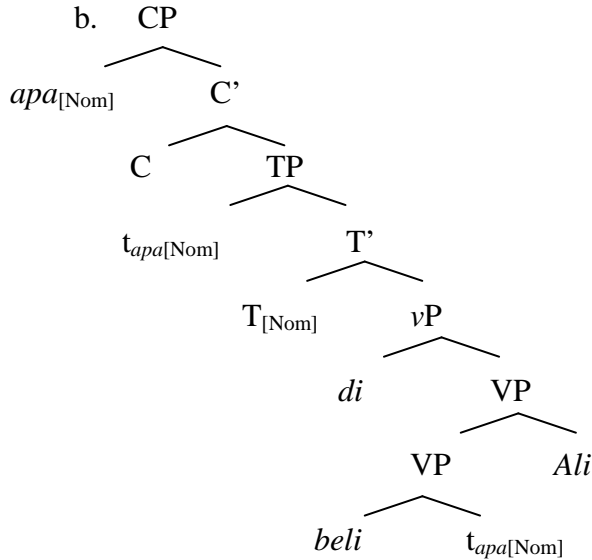
- (20) a. \*Apa yang Ali **mem**-beli?  
 what C Ali ACT-buy  
 “What did Ali buy?”



The VP-internal argument can be extracted in a passive clause. Assuming again that unaccusative and passive *v*P are weak phases, T in (21) is able to probe down into VP without violating the Phase Impenetrability Condition and value absolutive case on the internal argument. This DP will also check the EPP feature on T and move to subject position. Following that, it can undergo Agree with the [wh] probe on C. I assume with Cole and Hermon (2005) that the passive agent is an adjunct adjoined to VP.

Indonesian

- (21) a. Apa yang **di**-beli (oleh) Ali?  
 what C PASS-buy by Ali  
 “What did Ali buy?”



As in Tagalog, since the EPP feature on  $v$  is a strong [D] feature, this allows free fronting of non-DPs.

Indonesian (Cole, et al. 2006)

- (22) a. **Di mana** Ali memukul Ahmad?  
 Loc which Ali ACT.hit Ahmad  
 “Where did Ali hit Ahmad?”  
 b. **Bilamana** Ali memukul Ahmad?  
 when Ali ACT.hit Ahmad  
 “When did Ali hit Ahmad?”

The preceding analysis essentially accounts for the facts observed in (5). However, there are two crucial issues which much be addressed. First, active  $v$  is treated on a par with Tagalog antipassive  $v$  in not being allowed to carry an EPP feature. However, there is no empirical evidence that Indonesian active  $v$  is intransitive. For example, active verbs can host applicatives, indicating that case is available for the applied object. The fact that it is the applied object which becomes subject of a passive further demonstrates that this object is structurally case-marked in the active clause.

Indonesian

- (23) a. Ali **mem-beri** buku pada Nuri.  
 Ali ACT-buy book for Nuri  
 “Ali bought a book for Nuri.”  
 b. Ali **mem-beri-kan** Nuri buku.  
 Ali ACT-buy-APP Nuri book  
 “Ali bought Nuri a book.”  
 c. Nuri **di-beri-kan** buku oleh Ali.  
 Nuri PASS-buy-APP book buy Ali  
 “Nuri was bought a book by Ali.”

Secondly, we will see in the next section that extraction in Indonesian is actually more complex than just illustrated. Specifically, passives are not always unaccusative, with a missing *vP* specifier. We will also see that there are certain conditions under which objects can be extracted from active clauses. I address the second point first and move to the discussion of active clauses in section 4.

### 3. Indonesian Passives and Transitivity

In the previous section, passive *v* was treated as an unaccusative weak phase head. However, it is well-known that not all passives in Indonesian are of this canonical type (Arka and Manning, 1998; Chung, 1976; Cole and Hermon, 2005; Guilfyole, Hung, and Travis, 1992; Musgrave, 2001a, 2001b; Sneddon, 1996; among others). In addition to the intransitive passives discussed in the previous section, there is another type<sup>5</sup>, in which the agent is expressed as a pronoun. There are free and bound form pronouns. The free form pronominals can express any person, as shown in (24a). 1<sup>st</sup> and 2<sup>nd</sup> person have alternate proclitic forms, as shown in (24b). The 3<sup>rd</sup> person bound form takes the form of the enclitic *nya*, as in (24c). The verb in this case is prefixed with *di-*. However, as will be discussed below, the pronominal agent in this type of *di-* passive is not demoted. For this reason, Arka and Manning distinguish this type of *di-* construction from true passives formed with *di-*.

- Indonesian (Arka & Manning 1998:3)
- (24) a. Buku itu *saya/kamu/dia* baca.  
 book that 1SG/2/3 read  
 “The book, I/you/(s)he read.”
- b. Buku itu *ku-/kau-*baca.  
 book that 1SG/2-read  
 “The book, I/you read.”
- c. Buku itu *di-baca-nya*.  
 book that PASS-read-3  
 “The book, (s)he read.”

Another distinguishing characteristic is that the preverbal agent pronouns in pronominal passives must immediately precede the verb. Therefore, they also must follow other pre-verbal elements, like auxiliaries.

- Indonesian (Arka & Manning 1998:7)
- (25) a. Rumah itu *akan saya* jual.  
 house that FUT 1SG sell  
 “The house, I will sell.”

<sup>5</sup> This construction has been referred to in various ways in the literature: ‘object preposing’ (Chung, 1976), ‘objective voice’ (Arka and Manning, 1998), ‘passive type two’ (Cole and Hermon, 2005; Sneddon, 1996), etc. I employ the descriptive term ‘pronominal passive’ for the expository part of the present section but adopt the formal designation ‘ergative’ later.

- b. \*Rumah itu saya akan jual.  
 house that 1SG FUT sell  
 “The house, I will sell.”

The purpose of the discussion in this section is to show that the pronominal passives are active and transitive. The key evidence for this comes from the fact that the agent is not demoted but rather functions as a subject. To begin the discussion, I note first that full NP agents in true passives formed with *di-* exhibit the behavior of obliques, being freely omissible.

Indonesian (Verhaar 1988:350)

- (26) Banyak karya seni dapat di-beli di Indonesia.  
 many work art can PASS-buy in Indonesia  
 “Many works of art can be bought in Indonesia.”

The full NP agent in *di-* passives is also unable to bind a reflexive in grammatical subject position.

Indonesian (Arka & Manning 1998:5)

- (27) ?\*Diri-nya di-serah-kan ke polisi oleh Amir.  
 self-3SG.GEN PASS-surrender-APPL to police by Amir  
 “Himself was surrendered to the police by Amir.”

In contrast to this, the agent of a pronominal passive displays evidence of subjecthood. Hopper (1983), Arka and Manning (1998), and others have additionally shown that *di-* passives with pronominal agents are frequently used as active clauses in narrative discourse. The agent in these examples is expressed by the bound form *-nya*.

Indonesian (“Jakarta”)

- (28) a. **Di**-tepek-tepek-nya debu yang melekat di celana-nya,  
 PASS-slap-3SG.GEN dust REL stuck on trousers-3SG.GEN  
 “He slapped at the dust stuck to his trousers...”  
 b. lantas **di**-ambil-nya slepi dari saku-nya.  
 then PASS-take-3SG.GEN cigarette.case from bag-3SG.GEN  
 “...then he took a cigarette case out of his bag.”  
 c. **Di**-tawar-kan-nya rokok ke ujung hidung si penjaga.  
 PASS-offer-APP-3SG.GEN cigarette to tip nose PN guard  
 “He offered out a cigarette under the tip of the guard’s nose.”

Verhaar (1988) also points out that pronominal passive agents can serve as imperative addressees.

Indonesian (“Ia Masih Kecil”)

- (29) Kerja-kan hitungan itu!  
 solve-APPL sum that  
 “Solve those sums!”

Other evidence that pronominal passive agents exhibit the behavior of subjects is the fact that they can antecede reflexives. (30) shows examples of all types of pronominal passive: preverbal free form, proclitic, and enclitic.

- Indonesian (Arka & Manning 1998:8)
- (30) a. Diri-saya saya serah-kan ke polisi.  
self-1SG 1SG surrender-APPL to police  
“I surrendered myself to the police.”
- b. Diri-nya mesti dia serah-kan ke polisi.  
self-3SG.GEN must 3SG surrender-APPL to police  
“(S)he must surrender herself/himself to the police.”
- c. Diri-nya tidak di-perhati-kan-nya.  
self-3SG.GEN NEG PASS-care-APPL-3SG.GEN  
“(S)he didn’t take care of herself/himself.”

This patterns with active subjects, which also have the ability to bind reflexives.

- Indonesian (Arka & Manning 1998:4)
- (31) Saya men-yerah-kan diri saya ke polisi.  
1s Act-surrender-AppI self1s to police  
“I surrendered myself to the police.”

Arka and Manning show additionally that the agent of a pronominal passive can control PRO in an embedded nonfinite CP. Similar observations have been made by Chung (1976), Hopper (1983), Musgrave (2001a), and others.

- Indonesian (Chung 1976:90)
- (32) a. ?Ahmed mereka<sub>i</sub> antyam [untuk PRO<sub>i</sub> men-akuti-nya].  
Ahmedthey threaten for ACT-scare-him  
“Ahmed, they threatened to frighten him.”
- b. ?Sendyata itu kita<sub>i</sub> buka [untuk PRO<sub>i</sub> mem-perbaik-i-nya].  
weapon that we open for ACT-repair-APPL-it  
“The gun, we opened to repair it.”

As in *di-* passives with full NP agents, however, the clause-initial DP, which is an internal argument, is eligible for A’-extraction.

- Indonesian (Cole & Hermon 2005:66)
- (33) a. [Buku [yang tidak akan kami baca]] sangat menarik.  
book that not will we read very interesting  
“The book that will not be read by us is very interesting.”
- b. [Anak [yang tidak kami pukul-i] itu] men-angis.  
child that not we hit-APP that meN-cry  
“The child that wasn’t hit by us is crying.”

We can incorporate the pronominal type of passive into the analysis of Indonesian in the following way. Following Arka and Manning (1998), Cartier (1979), Hopper (1983), Verhaar (1988), and others, I treat the pronominal ‘passive’ as a transitive ergative construction. The ergative  $v$  then can be given essentially the same analysis as transitive  $v$  in Tagalog<sup>6</sup>.

(34) Indonesian

$v_{Act}$ : [ $u$ Case:Acc] feature to value with a DP in its c-command domain.  
No [D\*] feature.

$v_{Pass}$ :

$v_{Erg}$ : Inherent case to assign to the external argument.

[D\*] feature to draw the internal argument DP to the  $vP$  phase edge.

$T_{Fin}$ : [ $u$ Case:Nom] feature to value with a DP in its c-command domain.

[D\*] feature to draw the subject to [Spec, TP].

The principal empirical difference between ergative and passive clauses in Indonesian is whether the external argument functions as a subject. In formal terms, the distinction is captured by whether this DP is merged in [Spec,  $vP$ ] or as an adjunct. Passive  $v$  is a weak phase head, which neither selects an external argument nor carries an EPP feature. On the other hand, the ergative  $v$  does select an external argument, which is merged in its specifier. Ergative  $v$  additionally has an EPP feature, which raises the object to its outer specifier. This makes the object accessible to the case and EPP features on T and to an operator probe on C.

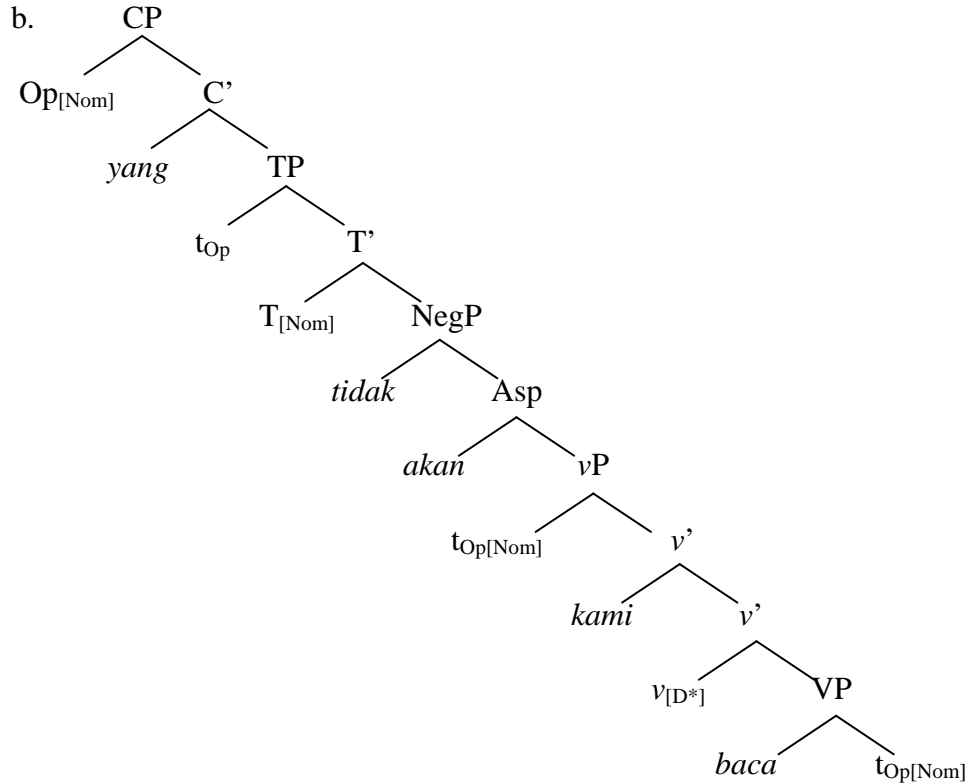
Indonesian (Cole & Hermon 2005:66)

- (35) a. [Buku [yang tidak akan kami baca]] sangat menarik.  
book that not will we read very interesting  
“The book that will not be read by us is very interesting.”

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<sup>6</sup> I am assuming one difference between Tagalog and Indonesian ergative clauses: in Indonesian T always checks nominative case, so ergative  $v$  does not carry a case feature. As it does not bear directly on the analysis put forth in this paper, I leave out discussion of this point at the present time.



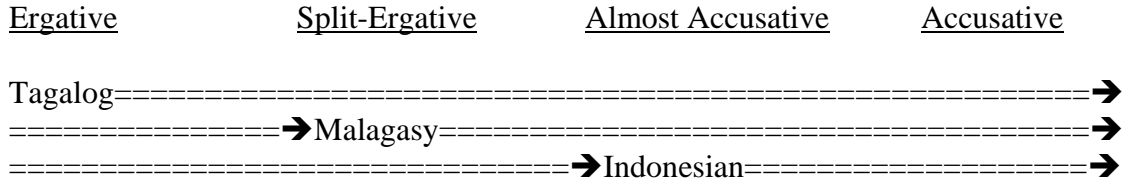


The proposal that ergative  $v$  carries an EPP feature is also consistent with Chomsky's (2000, 2001, 2004) conception of a strong phase<sup>7</sup>, given that the presence or absence of a specifier is the primary difference between transitive and unergative  $v$  on the one hand and passive and unaccusative  $v$  on the other. Therefore, we can assume that  $v$  heads a strong phase when it projects a specifier.

The question must still be answered, however, as to why Indonesian has transitive passives. Another issue which has not yet been addressed is why active  $v$  cannot carry an EPP feature, even when it is transitive. Aldridge (to appear) argues that Western Austronesian languages can be placed along a historical continuum from ergative to accusative syntax. Tagalog is a  $v$ -type ergative language. Languages like Malagasy<sup>8</sup> and Toba Batak retain ergative syntax in transitive clauses but have lost the antipassive construction. Indonesian has evolved further toward accusative syntax. This is shown by the fact that *di-* clauses with full NP agents have been reanalyzed as passive. However, retention of the ergative construction, in the form of the pronominal passive, is evidence of earlier ergative syntax.

<sup>7</sup> See also Lee-Schoenfeld (to appear) for a similar definition of phase, in which a strong phase is defined as a phase which takes the maximum number of arguments for a phase of that category. A strong  $vP$ , by this definition, is one which projects a specifier.

<sup>8</sup> The findings of Paul and Travis (2006) agree with the assertion that Tagalog is more ergative than Malagasy, and the primary difference between the two languages is found in the antipassive (or actor topic) construction.



The fact that this change from ergative to accusative syntax is initiated in the antipassive construction comes as no surprise, given that the absolutive in an antipassive is also the subject, i.e. the external argument. The antipassive, then, serves as a pivotal construction in the process of reanalyzing absolutives as subjects. The next two sections discuss the historical and typological connection between Indonesian *meN*- and antipassive in other Austronesian languages.

#### 4. Indonesian *meN*- and Antipassive

Of the questions posed at the end of section 2, we must still address the analysis of active clauses in standard Indonesian as similar to antipassives in Tagalog. Aldridge (to appear) claims that Indonesian active clauses have been fully reanalyzed as transitive and are no longer antipassive. However, that paper did not consider the extraction restriction, in terms of which Indonesian active clauses pattern with antipassives in Tagalog. It is therefore necessary to extend the earlier historical analysis in order to account for this dual behavior of Indonesian active clauses. The Indonesian active prefix *meN*- has been reanalyzed as transitive, in the sense that it carries a structural case feature, as demonstrated in (23). However, it retains the characteristic of an antipassive in that it is still unable to carry an EPP feature, thereby preventing objects from undergoing extraction in active clauses. The change which has taken place to derive standard Indonesian active can be formalized as the addition of a structural case feature.

	<u>Ergative Language</u>	=>	<u>Split Ergative/Almost Accusative</u>
(36)	$v_{AP}$ : No EPP feature No case feature		$v_{AP}$ : No EPP feature [ <i>u</i> Case:Acc]

One significant aspect of this proposal is that it is consistent with recent Minimalist approaches to syntactic change, according to which change does not target constructions as a whole but rather is the result of changes in the featural make-up of lexical items, particularly functional categories (Aldridge, 2006; Longobardi, 2001; Roberts and Roussou, 2003; Whitman, 2000; and others).

This proposal is bolstered further by an observation by Cole and Hermon (2005) regarding object extraction. Cole and Hermon show that it is overly simplistic to claim that objects cannot undergo A'-extraction in standard Indonesian. As we have seen in (5c), objects in *meN*- clauses are ineligible for extraction<sup>9</sup>. However, an object can be relativized in an active clause, as long as the verb does not carry the *meN*- prefix. Note that the verbs in (37) do not take any prefixes. Note also that the agent in both examples is a full DP and not a pronoun, so these sentences are not pronominal passives.

<sup>9</sup> Musgrave (2001a, b), Saddy (1991), and Soh (1998) have also made similar claims.

- Indonesian (Cole & Hermon 2005:63)
- (37) a. [Orang yang [Ali **jemput**]] adalah adik-nya.  
 person that Ali pick.up is brother-his  
 “The person that Ali picked up is his brother.”
- b. [Orang yang [polisi **tangkap** di pasar]]  
 person that police arrest in market  
 telah men-curi tas.  
 already *meN*-steal purse  
 “The man that the police arrested in the market had stolen a purse.”

Further indication that these are not passives (or ergative clauses) comes from the fact that the agent precedes auxiliaries like negation and aspectual markers.

- Indonesian (Cole & Hermon 2005:64)
- (38) a. [Buku [yang Budi tidak akan **baca**]] sangat menarik.  
 book that Budi not will read very interesting  
 “The book that Budi will not read is very interesting.”
- b. [Anak [yang Wati tidak **pukul-i**] itu] men-angis.  
 child that Wati not hit-APP that *meN*-cry  
 “The child that Wati didn’t hit is crying.”

The evidence presented in (37) and (38) makes it clear that it is the feature bundle of the *meN*-  $\nu$  which participates in the extraction restriction and further endorses the Minimalist approach to syntactic change proposed here. What has happened historically in Indonesian is that the feature bundle inserted into  $\nu$  and spelled out as *meN*- does not carry an EPP feature, which is a historical remnant of the origin of *meN*- as an antipassive marker. On the other hand, the feature bundle accompanying bare verb stems can freely include an EPP feature, allowing object extraction over the subject<sup>10</sup>. The next section provides cross-linguistic evidence for the *meN*- type of antipassive described above.

## 5. Antipassive in Malagasy

There is general consensus in Austronesian historical linguistics that Indonesian *meN*- is cognate with the Malagasy actor topic prefix *man*-<sup>11</sup>. In this section, I show that Malagasy *man*- has the same featural makeup as Indonesian *meN*-, in that it checks structural case but does not carry an EPP feature. This is further clarification of Aldridge’s (to appear) analysis of the change from antipassive to transitive in Malagasy. I show here that the change which has taken place in Malagasy is that antipassive  $\nu$  has acquired a structural case feature but retains the inability to carry an EPP feature.

<sup>10</sup> I assume the less restricted behavior of the bare stem verbs to be an innovation, as part of the historical evolution of Indonesian syntax toward accusativity. This position is also consistent with the findings of Cole et al. (2003) and Cole and Hermon (2006).

<sup>11</sup> This information was conveyed to me in personal communication by John Wolff and Robert Blust.

As I mentioned in section 3, Malagasy is located between Tagalog and Indonesian on the historical continuum from ergative to accusative syntax. Malagasy exhibits ergative syntax in transitive clauses and simple intransitive clauses. Malagasy is a VOS language, in which case is marked primarily by position. The absolutive<sup>12</sup> DP appears in clause-final position. It is clear, then, that the object in the transitive clause and the subject in the intransitive clause are treated alike in terms of case-marking.

- Malagasy
- (39) a. Novidin-dRajaona ny boky. (Pearson 2001)  
 PAST.TT.buy-Rajaona DET book  
 “Rajaona bought the book.”
- b. Mandihy Rabe. (Paul & Travis 2006)  
 AT.dance Rabe  
 “Rabe is dancing.”

Ergative clauses like (39a) are transitive, as they are in Tagalog, since the external argument displays characteristics of subjecthood. The following examples show that the ergative DP can antecede a reflexive and serve as an imperative addressee.

- Malagasy (Paul & Travis 2006)
- (40) a. Hajain’ny vehivavy<sub>i</sub> ny tenany<sub>i</sub>.  
 respect.GEN.DET woman DET self  
 “The woman respects herself.”
- b. Sasao ny lamba!  
 TT.wash DET cloth  
 “Wash the clothes!”

Where Malagasy differs from Tagalog is in the antipassive construction. Paul and Travis (2006) cite evidence from the information status of the object. For example, whereas Tagalog antipassive objects are nonspecific and take narrow scope with respect to the external argument, in Malagasy, the object can be specific and receive a wide scope interpretation.

- Tagalog
- (41) a. B-um-ili ang babae ng isda.  
 -INTR.PERF-buy ABS woman OBL fish  
 “The woman bought a/\*the fish.”
- b. Nag-basa ang [lahat ng bata] ng [marami-ng libro].  
 -PERF.INTR-read ABS all GEN child OBL many-LK book  
 “All the children read many books.”  
 ALL > MANY

<sup>12</sup> ‘Absolutive’ refers to what is customarily called a ‘topic’ in Malagasy linguistics (Paul and Travis, 2006; Pearson, 2001, 2005; Rackowski and Travis, 2000; among others). Transitive and intransitive verbal affixes are likewise called ‘theme topic’ and ‘actor topic’ morphology.



Malagasy (Keenan 1976:265)

- (45) a. ny lamba (izay) sasan'ny zazavavy  
DET clothes that TT.wash.DET girl  
“the clothes that are washed by the girl”  
b. \*ny lamba (izay) manasa ny zazavavy  
DET clothes that AT.wash DET girl  
“the clothes that the girl is washing”

Therefore, I conclude that *man-* in Malagasy is transitive, in the sense that it carries a structural case feature to value on an object DP. However, like antipassives in Tagalog, *man-* still cannot carry an EPP feature.

(46) Malagasy

- $v_{Tr}$ : [*uCase:Abs*] feature to value with a DP in its c-command domain.  
Inherent ergative case to assign to the external argument.  
[*D\**] feature to draw the absolutive DP to the  $vP$  phase edge.  
 $v_{AP}$ : [***uCase:Acc***].  
No [*D\**] feature.  
 $T_{Fin}$ : [*uCase:Abs*] feature in intransitive clauses.

This makes it clear that whether or not antipassive  $v$  carries a structural case feature is a separate parameter from whether or not it carries an EPP feature, and historical change can involve only one of these features and not necessarily the entire feature bundle as a whole.

Malagasy *man-* clearly displays the same syntactic behavior as standard Indonesian *meN-*, supporting the hypothesis that it is the lexical features of *meN-* which are responsible for the inability of objects to extract in active clauses in Indonesian. This is significant, first because it provides a formal account of the descriptive generalization by Cole and Hermon (2005), Musgrave (2001b), Saddy (1991), and Soh (1998) that DPs cannot move over the *meN-* prefix. Secondly, it shows this otherwise anomalous characteristic of Indonesian syntax to belong to the broader typology of Western Austronesian syntax, as a remnant of earlier ergative syntax. Specifically, languages like Malagasy demonstrate that significant changes in syntactic behavior, e.g. the evolution from ergative to a type of split-ergative syntax, can be effected by the gain or loss of a single feature on one functional category. The existence of such micro-changes in turn helps to clarify the typology of languages affected by such changes. In other words, this allows the various types and degrees of ergativity found in the syntax of Western Austronesian languages to be given a heterogeneous, yet parametrically determined, analysis.

## 6. Against a Possible Case Agreement Approach

In the preceding sections, I have accounted for the correspondence between verbal morphology and A'-extraction possibilities by limiting the appearance of an EPP feature to certain feature bundles which are inserted in  $v$ . In this section, I consider a possible

alternative analysis, in which verbal morphology is analyzed as a type of agreement, rather than as markers of transitivity, antipassive, applicative, etc. In section 6.1, I sketch the analysis which has been proposed for Tagalog. I refer this proposal as the case agreement analysis. In section 6.2, I argue against a possible case agreement approach to Indonesian.

### 6.1. Case Agreement Analysis for Tagalog

Rackowski (2002) and Rackowski and Richards (2005)<sup>13</sup> have proposed an analysis of Tagalog morphosyntax and extraction which assumes that the language is accusative and that nominative and accusative case are checked and valued by T and *v*, respectively, in the usual way. *ang* and *ng* are also not taken to be case markers, per se. Rather, *ang* marks the DP which undergoes an Agree relation with the verb and copies its case feature to the verb. This case feature is then spelled out morphologically as one of the voice affixes. The analysis of voice affixes in the case agreement analysis can be found in the appendix.

The agreeing argument is the highest DP in the *v*P phase edge. This is ensured by exploiting the fact that absolutive objects are definite, while antipassive objects are nonspecific, and proposing that the definite object undergoes object shift and becomes the agreeing (absolutive) DP. The nonspecific object (in an antipassive) remains in its base position, allowing the external argument to enter into the Agree relation (thereby becoming the absolutive of the clause).

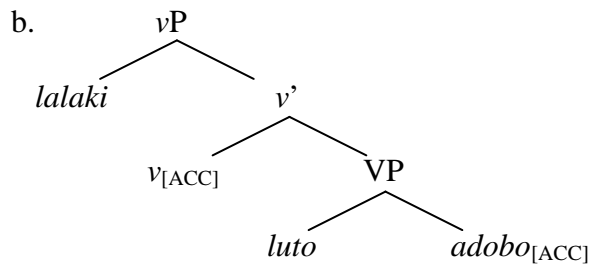
The examples in (47) through (51) illustrate the case agreement analysis for Tagalog. (47) shows a transitive clause, where the theme has absolutive status. Under the case agreement analysis, this is an example of accusative agreement. According to this analysis, accusative case is checked by *v* with the internal argument in its base position.

Tagalog (Rackowski 2002:112)

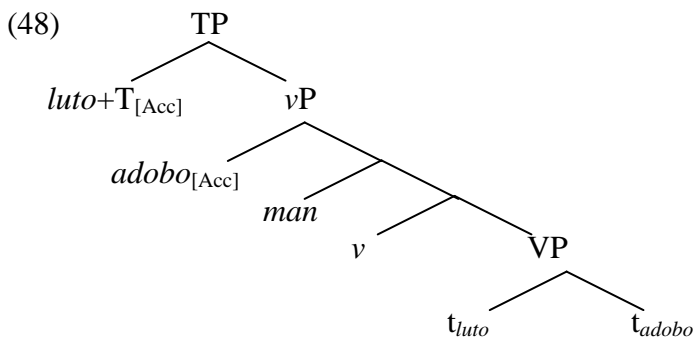
- (47) a. Lu-lutu-**in** ng lalaki ang adobo.  
 ASP-cook-ACC CASE man ANG adobo  
 “The man will cook the adobo.”

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<sup>13</sup> Other case agreement analyses have been proposed for Chamorro (Chung, 1994, 1998), for Palauan (Georgopoulos, 1991), and for Malagasy (Pearson, 2001, 2005). We can safely say, then, that case agreement is a relatively popular approach to the Austronesian extraction restriction. However, each of these analyses is uniquely designed for its own language and is not easily exportable to other languages with the same restriction (see Aldridge, 2004a, for discussion). These approaches, like Rackowski (2002) and Rackowski and Richards (2005), also do not present concrete evidence for the assignment of nominative and accusative case, which is one of the most fundamental assumptions of these analyses.



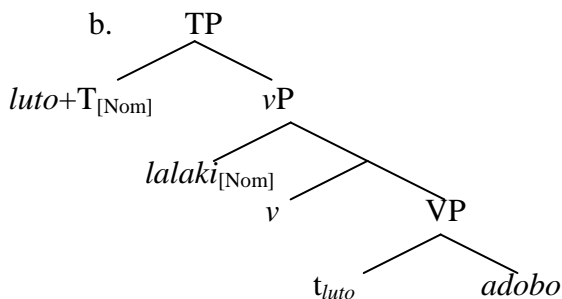
The direct object then shifts to the  $vP$  phase edge (because it is specific). When T is merged into the structure, it probes into its c-command domain for a DP to check its case agreement feature. The closest DP is the theme argument, located in the outer specifier of  $vP$ . Agree takes place between this DP and T, and the accusative case feature of the theme is copied to the verb and spelled-out as the voice marker *-in*.



(49) gives the derivation of the antipassive version of (47). For the case agreement analysis, this is an instance of nominative case agreement. The internal argument is nonspecific and will not undergo object shift. When T probes for a DP, it will now agree with the external argument, which is merged in [Spec,  $vP$ ]. The nominative case feature on this DP is then spelled out on the verb as a reflex of *-um-*.

Tagalog

- (49) a. **M**-aglu-luto      ang    lalaki   ng    adobo.  
 NOM-ASP-cook      ANG    man    CASE   adobo  
 “The man will cook the adobo.”



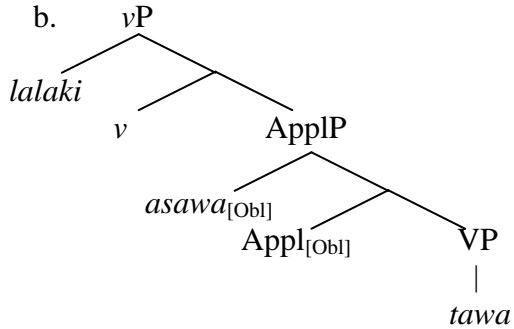
In applicative constructions, the applied object is merged in the specifier of ApplP,



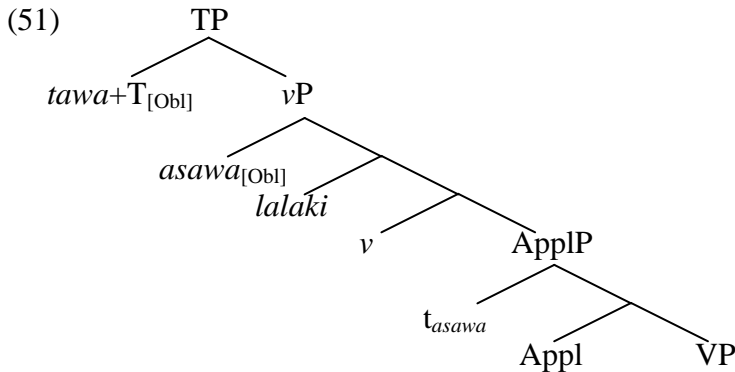
where it receives inherent case from the applicative head.

Tagalog (Rackowski 2002:84)

- (50) a. **I-t-in-awa** ng lalaki *ang kanyang asawa*.  
 OBL-ASP.laugh CASE man ANG his wife  
 “The man laughed for his wife.”



Applied DPs are required to undergo specificity shift, regardless of their information status<sup>14</sup>. The oblique case feature is then copied to T (to be spelled out as applicative morphology on the verb), and the applied object is identified as the subject of the clause.



## 6.2. Against Case Agreement in Indonesian

Aldridge (in press) presents a comprehensive critique of the case agreement analysis for Tagalog. I merely point out here the primary weakness in the case agreement approach which is relevant to the analyses of both Tagalog and Indonesian: voice morphology is treated as having a one-to-one correspondence with case features of DPs.

This weakness is illustrated for Tagalog with an applicative construction. First, as we have seen in section 5, applied DPs are only case-licensed when the verb takes transitive inflection, as in (52a), and not when the verb is antipassive, as in (52b). In other words, the verb is required to take two voice markers (both oblique and accusative)

<sup>14</sup> Rackowski (2002) and Rackowski and Richards (2005) do not propose a clear motivation for this requirement but simply note that applied objects must undergo specificity shift and be the DP to agree with the verb in case features.

in order to agree with the case feature of an applied DP. The examples in (52) are shown with glosses for both the ergative and case agreement analyses, for comparison.

- Tagalog
- (52) a. **I-b-in-ili=ko**                      *ang babae*      ng      libro.  
 EA:      APP-TR.PERF-buy=1SG.ERG    ABS    woman    OBL    book  
 CA:      OBL-ASP(ACC)-laugh=1SG    ANG    woman    CASE    book  
 “I bought the woman a book.”
- b. \***I-b-um-ili=ako**                      *ng babae*      ng      libro.  
 EA:      APP-INTR.PERF-buy=1SG.ABS    OBL    woman    OBL    book  
 CA:      OBL-ASP(NOM)-laugh=1SG    CASE    woman    CASE    book  
 “I bought a woman a book.”

I further point out that the fact that the intransitive antipassive  $\nu$  is unable to case-license the applied object also indicates that this  $\nu$  does not have a structural case feature, contra the assumption of the case agreement analysis that  $\nu$  checks accusative case, regardless of whether the verb takes accusative or nominative agreement morphology.

In the remainder of this subsection, I consider a possible case agreement analysis of the A'-extraction restriction in Indonesian. Before beginning that discussion, I first review the analysis of extraction in this language which I have proposed in sections 2, 3, and 4. I have proposed that the *meN-* prefix is a historical remnant of an antipassive prefix and as such cannot host an EPP feature. This prevents extraction of an internal argument over a verb prefixed with *meN-*.

- Indonesian
- (53) a. **Siapa yang mem-beli buku-nya?**  
 who    C      ACT-give    book-DEF  
 “Who bought the book?”
- b. \***Apa yang Ali mem-beli?**  
 what    C      Ali ACT-buy  
 “What did Ali buy?”

In order to extract the theme or patient argument, the clause can be passivized, which demotes the external argument to adjunct status and results in a weak  $\nu$ P phase, allowing extraction of a VP-internal DP.

- Indonesian
- (54) **Apa yang di-beli (oleh) Ali?**  
 what    C      PASS-buy    by      Ali  
 “What did Ali buy?”

Another option is for the clause to remain active but to remove the *meN-* prefix. Without the *meN-* prefix, an EPP feature can be added to the feature bundle in  $\nu$ , which will draw the direct object to the outer specifier of  $\nu$ P and allow it to be visible to a probe on C.

Indonesian (Cole & Hermon 2005:63)

- (55) [Orang yang [Ali jemput]] adalah adik-nya.  
person that Ali pick.up is brother-his  
“The person that Ali picked up is his brother.”

Yet a third option is to use a transitive ergative clause with a pronominal agent, which also allows an EPP feature to be generated on *v*.

Indonesian (Cole & Hermon 2005:66)

- (56) [Buku [yang tidak akan kami baca]] sangat menarik.  
book that not will we read very interesting  
“The book that will not be read by us is very interesting.”

Therefore, there are at least three separate strategies for extracting a theme or patient argument. This lack of direct correspondence between voice and extraction possibilities makes it unlikely that a case agreement analysis can be applied to extraction in Indonesian. Cole et al. (2006) suggest a limited implementation of the case agreement analysis. The canonical passive marker *di-* is not included among the case agreement affixes<sup>15</sup>.

This leaves the contrast between verbs prefixed with *meN-* and those that do not take a prefix. Cole et al. treat *meN-* as agreement with a nominative subject and the absence of *meN-* as agreement with an object. However, this is still problematic, because the extracted argument in a bare verb clause is not always the accusative–marked DP. In an ergative clause (pronominal passive), it is the nominative-marked grammatical subject which is extracted. Recall first that nominative grammatical subjects typically occupy clause-initial position in Indonesian. In bare active sentences, this is the external argument. In ergative clauses, this is the fronted internal argument.

Indonesian

- (57) a. [Buku [yang **Budi** tidak akan baca]] sangat menarik.  
book that Budi not will read very interesting  
“The book that Budi will not read is very interesting.”

(Cole & Hermon 2005:64)

- b. **Rumah itu** akan saya jual.  
house that FUT 1SG sell  
“The house, I will sell.”

(Arka & Manning 1998:7)

Additionally, Chung (1976) argues extensively that the clause-initial internal argument is the nominative-marked subject in ergative clauses. Key evidence comes from the fact that it is this DP which is the controlled gap in a nonfinite clause. The external argument is not eligible.

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<sup>15</sup> This is reasonable, given that a passive *v* is a weak phase head and does not have a structural case feature.

- Indonesian (Chung 1976:68)
- (58) a. Kami mem-bawa mobil itu<sub>i</sub> [untuk PRO<sub>i</sub> mereka perbaiki].  
 we Act-bring car the for they repair  
 “We brought the car to be repaired by them.”
- b. \*Saja<sub>i</sub> pergi [untuk mobil itu PRO<sub>i</sub> perbaiki].  
 I go for car the repair  
 “I went for the car to repair.”

This indicates that the fronted internal argument is the nominative-marked subject, suggesting in turn that bare verb stems cannot agree with the *accusative* case feature of the extracted internal argument.

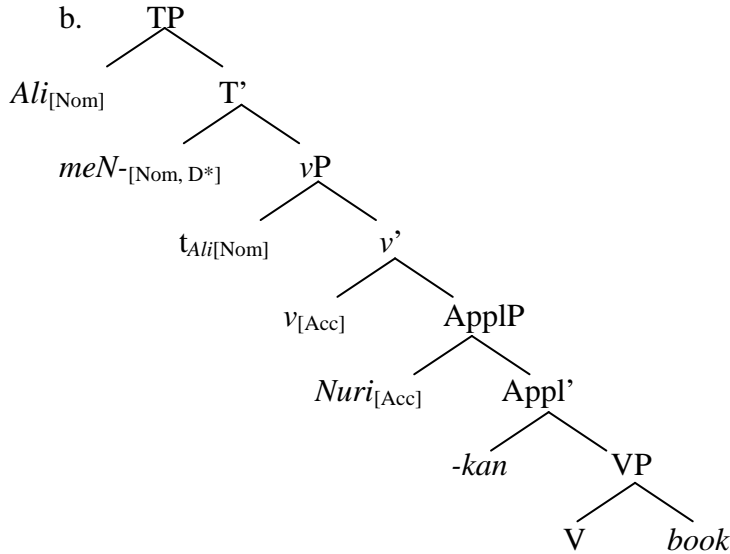
A further limitation of a case agreement approach to Indonesian is that applicative constructions would also have to be omitted from the analysis. Like other accusative languages with applicative constructions, applicative affixes can appear on both active and passive verbs. In the active clause in (59a), the applied object remains in the VP, while the external argument has the status of subject. In the passive clause in (59b), the applied object checks nominative case and raises to subject position. Indonesian is completely parallel in this regard to the Bantu language Chichewa (Baker 1988).

- Indonesian
- (59) a. Ali *mem-beli-kan* Nuri buku.  
 Ali ACT-buy-APP Nuri book  
 “Ali bought Nuri a book.”
- b. Nuri *di-beli-kan* buku oleh Ali.  
 Nuri PASS-buy-APP book by Ali  
 “Nuri was bought a book for by Ali.”

Cole and Son (2004) argue that the suffix *-kan* provides syntactic licensing for an argument present in thematic structure but not licensed in argument structure. I interpret this conclusion structurally by analyzing *-kan* as an applicative which heads a high applicative phrase (in the sense of Pytkkanen 2002) merged between *v* and VP and selects a DP in its specifier<sup>16</sup>. Being merged closer to *v* than the theme DP, the applied DP will be the one to check the accusative case feature on transitive *v*.

- Indonesian
- (60) a. Ali mem-beli-kan Nuri buku.  
 Ali ACT-buy-APP Nuri book  
 “Ali bought Nuri a book.”

<sup>16</sup> I am assuming this analysis for the use of *-kan* as a benefactive applicative. Analysis of the other uses of *-kan* treated by Cole and Son (2004) is beyond the scope of this paper.



Regarding A'-extraction, only the subject is eligible to move. In an active clause, this is the external argument. The applied object is not eligible. The applied argument can only be extracted from a passive. This is accounted for in the same way as simple passives in section 2.2. The *di-* vP is a weak phase, allowing internal arguments to be accessible to a probe on C. The applied object, merged in the specifier of ApplP, will be the closest DP within this phase and therefore will be the one to check the probe on C.

#### Indonesian

- (61) a. Siapa yang **mem**-beli buku-nya?  
 who C ACT-give book-DEF  
 “Who bought the book?”
- b. \*Siapa yang Ali **mem**-beli-**kan** buku?  
 who C Ali ACT-buy-APP book
- c. Siapa yang **di**-beli-**kan** buku oleh Ali?  
 who C PASS-buy-APP book by Ali  
 “Who was bought a book for by Ali?”

It is not at all clear how a case agreement analysis could be implemented for the paradigm in (61). First, it is unlikely that *-kan* could be treated as agreement with accusative case, given the fact that it occurs in a canonical passive, where accusative should be unavailable. *-kan* might be treated as agreement with an oblique case feature supplied by Appl to the applied DP, as in Rackowski’s (2002) analysis of Tagalog. But this leads us back to the problem encountered with the Tagalog applicative constructions in (52). There we saw that extraction of an applied argument required two case agreement morphemes on the verb. The same would be true under such an analysis of (61): both the applicative and the passive affixes are required. This is unexpected under a case agreement analysis, in which there is assumed to be a direct correspondence between voice affixes case features.

In sum, then, we must conclude that a case agreement approach is not a very satisfying analysis of extraction in Indonesian. Canonical passives and applicative

constructions do not seem to be appropriate targets of a case agreement analysis. We have also seen that the analysis by Cole et al. of bare verbs as accusative agreement markers is problematic<sup>17</sup>. Finally, although Rackowski (2002) and Rackowski and Richards (2005) do not claim to be able to account for Indonesian in their analysis of Tagalog, this lack of exportability suggests that their approach is not a suitable platform for approaching Austronesian syntax in a typologically or historically interesting way.

## 7. Conclusion

In this paper, I have proposed an analysis of the A'-extraction restriction in standard Indonesian, in which the appearance of an EPP feature is limited to certain types of feature bundles inserted in *v*. One theoretical contribution of this paper, then, is to provide empirical support for the claim that *v*P is a phase.

More importantly, however, I have shown that the types of *v* which participate in this restriction – pronominal passives and active clauses with the prefix *meN-* on the main verb -- are historical remnants of ergative syntax. This means that the analysis of Indonesian can be woven into the broader typology of ergative syntax and the historical continuum of ergativity found in Western Austronesian languages.

Additionally, the specific parameters I have proposed serve to identify the formal properties of syntactic ergativity and some ways in which it varies. It is hoped that this will serve not only as a foundation for developing the correct analysis of ergative syntax in different languages, but also may help to clarify the issues involved in the debate over the question of ergativity in Austronesian languages.

## Appendix

### Tagalog Voice Morphology

Basic Transitive:	<i>-in</i>
Locative Applicative:	<i>-an</i>
Benefactive/Instrumental Applicative:	<i>i-</i>
Intransitive/Antipassive:	<i>mag-</i> or <i>-O</i> <sup>18</sup>

### Morphology ⇔ Absolutive correspondence under the ergative analysis

<i>-in</i>	Theme/patient
<i>-an</i>	Goal/locative
<i>i-</i>	Benefactive/instrumental
<i>mag-/-O</i>	External argument/intransitive subject

<sup>17</sup> A more recent revision of Cole et al. (2006) also argues against applying the Rackowski and Richards (2005) case agreement analysis to several Indonesian languages. As it is unclear how their alternative could be applied to languages outside of Indonesia, I do not consider it here.

<sup>18</sup> There are two primary markers of intransitivity in Tagalog. *Mag-* appears on unergative verbs or on agentive antipassive verbs. It is historically derived from a causative prefix *pag-* and the intransitive infix *-um-*. *Nag-* is the perfective form of *mag-*, derived from *pag-* and the perfective infix *-in-*. Most other intransitive verbs do not take explicit morphology in the infinitive or future, but take *-um-* in their perfective and progressive forms.

Morphology ⇔ Absolutive correspondence under the case agreement analysis

-in	Accusative agreement
-an	Dative agreement
i-	Other oblique agreement
mag-/0	Nominative agreement

Tagalog Tense/Aspect Marking<sup>19</sup>

	<u>Perfective</u>	<u>Future</u>	<u>Progressive</u>
Transitive:	-in-V	Red-V-in	Red-in-V
Locative Applicative:	-in-V-an	Red-V-an	Red-in-V-an
Benefactive Applicative:	i-in-V	i-Red-V	i-Red-in-V
Intransitive:	nag-V	mag-Red-V	nag-Red-V
	-um-V	Red-V	Red-um-V

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<sup>19</sup> The transitive perfective marker is *-in-*, which also appears in the progressive. *-in-* and the basic transitive suffix *-in* are in complementary distribution.

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