Missing Complement Clause Subjects in Malagasy

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This paper presents and analyzes a biclausal construction in the Austronesian language Malagasy in which the subject of a complement clause is not expressed but is interpreted as coreferential with a higher noun phrase: *Manantena Rabei [mba/fa hividy fiara Øi]* ‘Rabei hopes that Øi will buy a car.’ We show that there are two different structures here depending upon the choice of complementizer. With the complementizer *mba*, the construction instantiates finite control: an obligatory referential dependency between an unexpressed subject in a finite clause and a higher antecedent. With the complementizer *fa*, despite some apparent similarities, the construction is not control. We propose instead an NP Drop analysis in which the missing subject is a null pronoun licensed by an independent process of topic drop.

1. INTRODUCTION. This paper investigates a case of missing complement clause subjects in the Austronesian language Malagasy. The complement clause in (1a) lacks a subject, which is nevertheless interpreted as coindexed with the higher subject, as represented by (1b), where the missing subject is indicated by \(\Delta\).

(1) a. Manantena Rabe *fa/*mba hividy fiara
   hope.PRESENT Rabe COMP buy.FUTURE car
   ‘Rabe hopes to buy a car.’

b. [manantena Rabe [fa/*mba hividy fiara \(\Delta\)]]
   hope Rabe COMP buy car

This Missing Subject Construction (MSC) was first documented in Keenan 1976, and here we intend to take up where he left off and consider in more detail the data and two of his suggested analyses. The first treats such examples as an instance of FINITE CON-
TROL, a referential and syntactic dependency between an unexpressed subject in a finite complement clause and an overt antecedent in the matrix clause. Finite control has recently been documented in a number of unrelated languages and is analyzed for Hebrew in Landau 2004. The alternative analysis is that the MSC represents the phenomenon of NP DROP in the embedded clause. Malagasy allows the omission of subjects, especially in informal, spoken contexts (Rahajarizafy 1960:14, Keenan 1976:274, Pearson 2005) and under this proposal the MSC is NP Drop in the embedded clause licensed by the matrix subject. We claim that both analyses are correct, depending upon the choice of the embedded clause complementizer. With the complementizer fa, the construction is NP Drop. When the complementizer is mba, the construction instantiates Finite Control. Thus, what looks superficially the same is actually two different structures.

The paper is organized as follows. Section 2 introduces some basics of Malagasy morphosyntax. In section 3 we present details of the missing subject construction and lay out two possible analyses, the Finite Control analysis and the NP Drop analysis. In section 4 we show that the construction with mba behaves like control but that the construction with fa does not. The two constructions systematically differ over a wide range of properties that characterize control structures. We conclude that both of Keenan’s analyses were correct, albeit for different sets of data. Sections 5 and 6 develop the NP Drop and Finite Control analyses in more detail and discuss how they account for the previously introduced data. Section 7 concludes.

2. MALAGASY SYNTAX. Malagasy is an Austronesian language spoken by approximately 14 million people on the island of Madagascar. It is widely cited as having predicate-initial word order, as in (2a). It also has a well-developed Philippine-style voice system that advances thematically diverse elements to the clause-final position. Corresponding to the ACTOR TOPIC (AT) sentence with the agent as the external argument in (2a), the THEME TOPIC (TT) sentence in (2b) has the direct object as the clause-final element and the CIRCUMSTANTIAL TOPIC (CT) sentence in (2c) has an oblique constituent in final position, in this case a benefactive. Note that the agent in non-AT clauses appears immediately following the verb.2

(2) a. N-i-vidy ny akoho i Bao.
   PAST-AT-buy the chicken Bao
   ‘Bao bought the chicken.’

   b. No-vidi-n’ i Bao ny akoho.
   PAST-buy-TT Bao the chicken
   ‘The chicken was bought by Bao.’

   c. N-i-vidi-anan’ i Bao akoho i Soa.
   PAST-AT-buy-CT Bao chicken Soa
   ‘Soa was bought a chicken by Bao.’

There is some debate over the status of the clause-final noun phrases in such examples: are they subjects occupying an A (argument) position or a topic element in an A’ (non-

2. We use the following abbreviations in glossing: AT, actor topic; CT, circumstantial topic; PRT, particle; TT, theme topic.
argument) position. Under the former approach, the theme topic and circumstantial topic sentences are like English passives, advancing an object or oblique element to subject position (Guilfoyle, Hung, and Travis 1992; Paul 2000). Under the latter approach, Malagasy is a VSO language in which one element must be obligatorily externalized to a right-peripheral position. This underlying order can be seen in circumstantial sentences like (2c), in which a nonterm is externalized. The verbal voice morphology registers the grammatical role of the externalized noun phrase (Pearson 2001, 2005 for Malagasy, Rackowski and Richards 2005 for Tagalog). We will ultimately adopt this latter position but will neutrally refer to the clause-final noun phrase as the EXTERNALIZED ELEMENT or the CLAUSE-FINAL DP.3

An exception to the generalization that the externalized element appears in clause-final position is when the predicate has a CP complement with an overt complementizer. In such cases, the CP occurs to the right of the externalized element, which is bold-faced in (3) (Keenan 1976). We will call this word order extraposition without taking a stand on how the CP arrives in this extraposed position.4

\[(3)\] a. Manantena Rabe [fa/mba handeha ho any Frantsa aho].
   hope...AT Rabe COMP FUT.go.AT LOC France 1s.NOM CP
   ‘Rabe hopes that I will go to France.’

b. *manantena [fa/mba handeha ho any Frantsa aho] Rabe
   hope COMP go LOC France 1s.NOM Rabe

Although there are differences between \textit{fa} and \textit{mba}, some of which will be discussed below, we will gloss both as COMP, for complementizer. The fact that both license a clause-final position of the complement they introduce supports this decision. To first approximation, \textit{fa} is the equivalent of English that and introduces an indicative clause, while \textit{mba} is an irrealis/subjunctive complementizer more similar to English \textit{for}. Abinjal and Malzac 1888/2000 characterizes \textit{mba} as a marker of the optative.

3. Within Government and Binding Theory, an A-position was a structural position in a language to which a \(\theta\)-role was assigned: the subject position (spec,I) and complement positions. All other positions were A’-positions. With the advent of the VP-internal subject hypothesis, according to which subjects originate in a lower position (spec,v) where they are assigned a \(\theta\)-role, the classic definitions of A- and A’-positions fail because spec,I undesirably becomes an A’-position. We continue to use the terms A- and A’-position because they are widely understood within the generative literature. For our purposes, A-positions are the canonical position of phrases bearing grammatical relations to the clause (subject and object) and other positions are A’-positions. Simplifying somewhat, the debate over the status of the Malagasy externalized argument can be viewed as whether the externalized argument occupies the canonical surface subject position in the clause or not.

4. Unextraposed examples are, in fact, grammatical for some speakers if the embedded subject is not pronounced. Randriamasimanana (n.d.) offers the examples in (i).

\[(i)\] a. Nilaza fa nandeha i Paoly.
   PAST.say that PAST.go.AT Paul
   ‘Paul said that he went (there).’

b. Nilaza fa hividy ilay boky i Paoly.
   PAST.say that FUT.go.AT that book Paul
   ‘Paul said that he would buy that book.’

These examples presumably illustrate the MSC under investigation, but we have nothing to say about why extraposition should become optional.
All Malagasy verbs, with the exception of certain *f*-nominalizations (Keenan and Polinsky 1998), contain tense morphology indicated in the table in (4). There are no dedicated nonfinite verb forms.5

(4) Malagasy tense prefixes

<table>
<thead>
<tr>
<th></th>
<th>PAST</th>
<th>PRESENT</th>
<th>FUTURE/IRREALIS</th>
</tr>
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<tbody>
<tr>
<td>n(o)-</td>
<td>Ø-</td>
<td>h(o)-</td>
<td></td>
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With this much as background, we turn to the MSC.

3. THE MISSING SUBJECT CONSTRUCTION. In presenting the MSC, we follow Keenan’s (1976) ground-breaking descriptive work. This section presents Keenan’s observations, supplemented with some of our own data from the Merina dialect of Malagasy.

The primary characteristic of this construction is that an embedded clause externalized element is missing under coreference with another DP in the sentence, (5). The first restriction on this generalization is that only externalized elements of agent topic verbs can licitly antecede a missing DP, as is the case in (5). A missing DP is not licensed by an agent of non-AT verb, (6), a possessor, (7), or a conjunct in a coordinate structure, (8).

(5) Manantena Rabe, fa/mba hividy fiara Δ.
   hope.AT Rabe COMP buy car
   ‘Rabe hopes to buy a car.’

(6) *antenain-dRabei fa/mba hividy fiara Δ.
   hope.TT-Rabe COMP buy car
   (‘It is hoped by Rabe to buy a car.’)

(7) *manantena ny fianakavian-dRabei fa/mba hanambady an-dRasoa Δ.
   hope.AT the family-Rabe COMP marry ACC-Rasoa
   (‘Rabe’s family hopes that Rabe will marry Rasoa.’)
   (ok with meaning ‘Rabe’s family hopes to marry Rasoa.’)

(8) *manantena Rabei sy Rakoto fa/mba hanambady an-dRasoa Δ.
   hope.AT Rabe and Rakoto COMP marry ACC-Rasoa
   (‘Rabe and Rakoto hope that Rabe will marry Rasoa.’)
   (ok with meaning ‘Rabe and Rakoto hope to marry Rasoa.’)

Second, only externalized elements can be dropped, (5), not objects, (9), or postverbal agents, (10).6

(9) *manantena Rabe, fa/mba hamangy Δ.
   hope Rabe COMP visit.AT Rasoa
   (‘Rabe hopes that Rasoa will visit him.’)

(10) *manantena Rabe, fa/mba hovangiana Δ.
     hope Rabe COMP visit.TT Rasoa
     (‘Rabe hopes that Rasoa will be visited by him.’)

5. With the past and future prefixes, *n/o/ho-* is used before consonants, *n/h-* is used before vowels. It is often stated that the present tense marker is *m-* in the actor topic voice and Ø- elsewhere. We follow Pearson 2001 in taking *m-* to be a voice marker that disappears in nonactor topic voices, perhaps for phonological reasons. Nothing hinges on this decision.

Lastly, Keenan notes that speakers vary in whether they require obviation when an overt pronoun is inserted as the embedded externalized element, (11). We also found highly variable judgments on similar examples. The (im)possibility of a coreferential interpretation varied greatly with the speaker, the matrix predicate, and the embedded clause. We will have nothing more to say about obviation and the graded judgments associated with it.

(11) Manantena Rabe fa/mba hividy fiara izy.
    hope.AT Rabe COMP buy car 35.NOM
*/?/ok ‘Rabe hopes to buy a car.’
‘Rabe hopes that he (not Rabe) will buy a car.’

Keenan (1976) suggests two analyses of the MSC. He initially posits that the construction is a form of Equi NP Deletion. What is now called Obligatory Control would be analyzed using the null formative PRO in the embedded externalized element position (Chomsky 1981, Landau 2000) or A-movement from one position to another (Hornstein 1999, 2003) as schematized in (12). The terms CONTROLLER and CONTROLLEE are standardly used to describe the overt DP and the missing DP, respectively, in a control relation.

(12) manantena Rabei [CP fa/mba hividy fiara PRO/ti]
    hope Rabe COMP buy car

The construction thus far does indeed show a number of properties typical of obligatory control, some of which are listed in (13) (see Hornstein 1999, 2003 Landau 2000, Jackendoff and Culicover 2003, Davies and Dubinsky 2004, as well as much earlier work on the subject).

(13) Properties of obligatory control

a. the missing constituent in the subordinate clause must be a subject
b. the missing subject does not allow an arbitrary interpretation
c. the missing subject does not allow a non-c-commanding antecedent

Keenan’s observations in (9) and (10) confirm (13a), that the missing element must be a subject under the assumption that the externalized element is in some way a subject. Property (13b), that the missing DP does not allow an arbitrary, nonreferential reading, is also confirmed in that MSC examples like (5) cannot mean ‘Rabe hopes that someone will buy a car’. Only the obligatory control interpretation is possible. Examples (6) through (8)) confirm property (13c), that the antecedent for the missing element must be a c-commanding DP.

The main difference between the more standard cases of obligatory control, which involve nonfinite complement clauses, and the MSC, is that the embedded clause in the MSC is finite. Given that we seem to have obligatory control into a finite (tensed) CP, the MSC calls for FINITE CONTROL analysis. Finite control has been recently analyzed in a Minimalist framework in Landau 2004 and is found in diverse languages such as Hebrew (Landau 2004), Japanese (Uchibori 2000), the Balkan languages (Terzi 1992, Landau 2004), and Persian (Hashemipour 1988, 1989, Ghomeshi 2001). Although it is not well known, its existence seems firmly established. A Hebrew example is given in (14).
Hem kivu e PRO/ti yelxu ha-bayta mukdam. 
They hoped that will.go.3P home early

‘They hoped to go home early.’

As an alternative, Keenan (1976:274) also suggests that the construction could be an instance of what he calls NP Drop. Malagasy shows characteristics of a discourse-driven, externalized-element-drop language, especially in informal, spoken contexts (Rahajarizafy 1960:14, Keenan 1976:274, Pearson 2005). Such NP Drop requires that the dropped noun phrase’s referent have been established as topical (“given”) earlier in the discourse. Although the pragmatic licensing requirements on NP Drop have not been precisely determined, we can assume for the sake of argument that they are met in this construction and we will call this the NP DROP analysis.

In the following section, we argue that both analyses are correct, but for different embedded complementizers. When the complementizer is mba, the MSC shows all the characteristics of control. We thus claim that it is finite control. When the complementizer is fa, however, the MSC does not exhibit control-like characteristics. Instead it seems to be a discourse-driven ellipsis construction, and we will propose that this is NP Drop. This conclusion will force us to flesh out both the Finite Control and the NP Drop analyses and their consequences, which we do in sections 5 and 6. To differentiate the two patterns below, we will call them MSC-mba and MSC-fa.

4. FURTHER PROPERTIES OF CONTROL. This section more closely compares the two constructions under investigation with known characteristics of control. The results provide further evidence in favor of analyzing MSC-mba as finite control. On the other hand, they argue against analyzing MSC-fa as control because the constructions do not pattern alike. The two will be seen to differ along a number of dimensions, suggesting distinct analyses. The conclusion is that MSC-mba is control but MSC-fa is not.

Much is known about the structural and interpretive properties of obligatory control. A number of these characteristics, based on in-depth studies of English are given in (15) (see Hornstein 1999, 2003, Landau 2000, Jackendoff and Culicover 2003, Davies and Dubinsky 2004, and references therein).

(15) OBLIGATORY CONTROL CHARACTERISTICS
a. the missing constituent must be a subject
b. the missing subject does not allow an arbitrary interpretation
c. the missing subject does not allow a non-c-commanding antecedent
d. controller choice is governed by the Minimal Distance Principle
e. the controller-controllee relation is local
f. the tense of the complement clause is dependent upon the tense of the matrix clause

We have already seen that the MSC with both complementizers has characteristics (15a–c). In this section, we show that MSC-mba has the remaining three characteristics in (15), but MSC-fa does not.

It is widely recognized that, to first approximation, obligatory control structures are subject to something like Rosenbaum’s (1967) Minimal Distance Principle in (16)
according to which the missing subject in control constructions must be coindexed with the closest possible antecedent (see Hornstein 1999 for recent discussion). It accounts for why intransitive control verbs are subject control and transitive verbs are typically object control, and not subject control, (17).

(16) **Minimal Distance Principle (MDP)**

PRO is coindexed with the lowest DP that c-commands it.

(17) a. Sandy, tried PRO/t, to win.
    b. Sandy, persuaded me, PRO+t/v, to go.

While there are exceptions to the MDP in which subjects control over a closer object, notably *promise* and *threaten* (Larson 1991), the class of exceptions is small, cross-linguistically stable (Ruzicka 1999), and semantically consistent (Jackendoff and Culicover 2003). The examples in (18) show that ordinary control structures in Malagasy also obey the MDP. Ordinary control differs from the MSC in that the complement clause does not extrapose and there is no overt complementizer.

    tell PREP-Rasoa learn Malagasy Rabe

府 ‘Rabe told Rasoa to learn Malagasy.’
府 ‘Rabe told Rasoa that he (Rabe) will learn Malagasy.’

b. Nampahatsiarynany zanany [hanidy ny varavarana] Rasoa.
    remind the child lock the door Rasoa

府 ‘Rasoa reminded her children to lock the door.’
府 ‘Rasoa reminded her children that she will lock the door.’

    persuade ACC-Rabe take air 1S.NOM

府 ‘I persuaded Rabe to take a vacation.’
府 ‘I persuaded Rabe that I should take a vacation.’

When we turn to the MSC, we find that *mba* patterns with obligatory control. The presence of a matrix object forces an object control interpretation for the missing embedded element, (19b), (20b), and (21b). With *fa* however, the missing element is still interpreted as coreferential with the matrix externalized element, (19a), (20a), and (21a).

(19) a. Niteny tamin-dRasoa Rabei [fa hianatra teny gasy Δi].
    tell PREP-Rasoa Rabe COMP learn Malagasy

府 ‘Rabe told Rasoa that he (Rabe) will learn Malagasy.’

b. Niteny tamin-dRasoa Rabe [mba hianatra teny gasy Δi].
    tell PREP-Rasoa Rabe COMP learn Malagasy

府 ‘Rabe told Rasoa to learn Malagasy.’

(20) a. Mampahatsiary ny zanany Rasoa [fa hanidy ny varavarana Δi].
    remind the children Rasoa COMP lock the door

府 ‘Rasoa reminded her children that she (Rasoa) will lock the door.’

b. Mampahatsiary ny zanany Rasoa [mba hanidy ny varavarana Δi].
    remind the children Rasoa COMP lock the door

府 ‘Rasoa reminded her children to lock the door.’
\[(21)\] a. \[\text{Nandresy lahatra an-dRabe ny ray aman-dreniko, persuade ACC-Rabe the parent.1S}\]
\[\text{[fa haka rivotra } \Delta].\]
\[\text{COMP take air}\]
‘My parents persuaded Rabe that they will take a vacation.’

b. \[\text{Nandresy lahatra an-dRabe, ny ray aman-dreniko persuade ACC-Rabe the parent.1S}\]
\[\text{[mba haka rivotra } \Delta].\]
\[\text{COMP take air}\]
‘My parents persuaded Rabe to take a vacation.’

We return to these facts in section 5, in developing the NP Drop analysis. At this point we note only that the MDP is regularly violated with MSC-\(\text{-fa}\), suggesting that it does not involve control.

The next relevant characteristic of obligatory control structures is locality of the controller-controllee relation. OC structures show strict restrictions on the position of the controllee. It must be the subject of a complement clause or adjunct immediately embedded in the clause containing the antecedent. That is, there can be at most one clause boundary between the controller and controllee. We will show that MSC-\(\text{-fa}\) does not obey this restriction, but MSC-\(\text{-mba}\) does.

To do this, however, we need to make a detour into the syntax of the focus construction in Malagasy, examples of which are given in (22). Descriptively, the focus construction is formed by fronting the focused constituent and following it with the particle \(\text{no}\) plus the remainder of the clause. Paul (2001) and Potsdam (2006a,b) argue that, despite appearances, these constructions are pseudoclefts. The initial XP in each case, \(\text{Rasoa}\) in (22a) and \(\text{omaly ‘yesterday’}\) in (22b), are the main predicates of the clause, and the remaining material is a headless relative clause in subject position. This is schematized in (23) for (22a).

\[(22)\] a. \[\text{Rasoa no nihomehy.}\]
\[\text{Rasoa PRT laugh}\]
\[\text{lit. ‘The one that laughed is Rasoa.’}\]
‘It is Rasoa that laughed.’

b. \[\text{Omaly no nihomehy Rasoa.}\]
\[\text{yesterday PRT laugh Rasoa}\]
\[\text{lit. ‘Yesterday is when Rasoa laughed.’}\]
‘It was yesterday that Rasoa laughed.’

\[(23)\] b. \[\text{[IP [predicate Rasoa] [DP/headless rel. no Op, nihomehy t]]}\]
\[\text{Rasoa laugh}\]

If such a construction is embedded under an MSC verb, then the entire headless relative clause should be missing because it is the embedded clause subject. But this is impossible. Instead, the subject inside the subject of the embedded pseudocleft clause is missing and interpreted as coreferential with the matrix subject:

\[(24)\] \[\text{Manantena Rasoa fa/??mba rahampitsø no handeha } \Delta.\]
\[\text{hope Rasoa COMP tomorrow PRT go}\]
‘Rasoa hopes that it is tomorrow that she will go.’
The example does not illustrate a possible obligatory control configuration, as we can see in the syntactic structure in (25). The controller (bold-faced) is the subject of the matrix clause but the putative controllee $\Delta$ is embedded within a relative clause within the complement clause’s subject.\(^7\)

(25) 
```
IP    
  I'    DP
  I    VP
  V    CP
manantena \('hope'\) \(\text{C}\) IP
fa/mba
  I'    PredP
  I    D
  rahampitsa \('tomorrow'\) no handeha $\Delta$
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The fact that this example is grammatical with \(fa\) indicates that we are not dealing with a control construction. If MSC-\(mba\), in contrast, is a control construction, the ungrammaticality of (24) with \(mba\) is expected.\(^8\) Observe that both options are fully grammatical if the missing subject is realized with a pronoun:

(26) Manantena Rasoa fa/mba rahampitsa no handeha izy.
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  hope    Rasoa    COMP tomorrow PRT go 3S
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‘Rasoa hopes that it is tomorrow that she (Rasoa or someone else) will go.’

The final well-known characteristic of control is that the temporal interpretation of the embedded clause is restricted by the matrix clause (Bresnan 1982, Varlokosta 1993, Stowell 1995, Martin 1996, Terzi 1997, Landau 2000, 2004, and others). This tense dependency is observed in finite control and Landau 2004 shows that the embedded verb in Hebrew finite control is restricted to having an irrealis interpretation. Morphologically, if the embedded verb is not an infinitival, it shows subjunctive morphology or future tense (Landau 2004). When we turn to the Malagasy MSC, we find that this is the case with \(mba\) but not \(fa\). With \(fa\) there is no tense dependency between the two verbs. With \(mba\), the embedded verb must have future/irrealis morphology marked with \(h(o)\)- (see [4] above):

(27) a. Mihevitra Rabe fa/\(^*/mba\) n-ahita gidro tanyan-tsena.
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think.AT Rabe COMP PAST-see.AT lemur LOCACC-market
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‘Rabe thinks he saw a lemur at the market.’

7. Extraposition of the complement clause is not shown in the structure.
8. If MSC-\(mba\) is a control structure, we might expect such examples to illustrate nonobligatory control with so-called PRO\(_{ob}\) as the controllee. This might account for the marginal acceptability of the example with \(mba\), but then we might also expect the example to take on the arbitrary reading. Further work is required to evaluate this proposal.
b. Mihevitra Rabe fa/mba h-ahita gidro any an-tsena.  
think.AT Rabe COMP FUT-see.AT lemur LOC ACC-market  
‘Rabe thinks he will see a lemur at the market.’

MSC-\textit{fa} is also possible with factive verbs, whose complements do not have an irrealis interpretation. MSC-\textit{mba} is not possible with such verbs:

(28) a. Manenina Rabe fa*/mba hivarotra ny ²arany.  
regret Rabe COMP sell the car.3S  
‘Rabe regrets that he will sell his car.’

b. Gaga ny mpiasa fa*/mba handray valim-pitia.  
be.surprised the worker COMP receive reward  
‘The worker is surprised that he will receive a reward.’

In conclusion, the MSC represents two distinct constructions. With the complementizer \textit{mba}, we have all the characteristics of a control structure. Because the complement clause is finite, we conclude that MSC-\textit{mba} represents finite control. With the complementizer \textit{fa}, in contrast, the construction does not behave like obligatory control. We conclude that the control analysis of MSC-\textit{fa} is not appropriate and that the NP Drop analysis may be a more promising approach. We explore the details of both analyses in the following sections.

5. TOPIC DROP

5.1 THE PROPOSAL. The intuition behind the NP Drop analysis of MSC-\textit{fa} that we will pursue is that Malagasy is a topic drop language much like the Germanic V2 languages. MSC-\textit{fa} is thus an instance of topic drop in the embedded clause, triggered by coreference with the externalized element in the matrix clause. In 5.2 we point out parallels from the literature between Germanic V2 languages and Malagasy that include topic drop to support our general approach. In 5.3 we analyze the dropped topic in Malagasy as an instance of \textit{pro}. The analysis follows Rizzi 1986, which proposes that \textit{pro} must be both licensed and recovered. Licensing takes place if \textit{pro} occupies some privileged syntactic position, which we identify as that occupied by the externalized element in Malagasy. Recovery determines the interpretation of \textit{pro} and in 5.4 we propose that this is done via an interpretive rule that links \textit{pro} with a current discourse topic.

5.2 PARALLELS BETWEEN MALAGASY AND GERMANIC. The Germanic languages, with the exception of English, are widely known for having a general V2 requirement in which the finite verb must occur in second position following some initial constituent. This initial constituent is often a topic, with particular characteristics that we explore below. The literature already contains explicit comparisons between Malagasy and Germanic V2 languages (Richards 2000 and Pearson 2001, 2005) and Pearson 2005 argues in detail that Malagasy clause-final DPs (what he calls TRIGGERS) are parallel to the initial XPs in Germanic V2 structures. If this comparison is accurate, then the presence of topic drop in both language families is unsurprising and will lead us to propose similar analyses.
In this section, we review the parallels between Germanic initial V2 topics and Malagasy externalized elements. (29) lists a number of these parallels, which are illustrated below (see Pearson 2005 for further discussion).

(29) **Parallels between Malagasy externalized elements and Germanic V2 topics**

- a. externalized/initial XP cannot be focused
- b. externalized/initial XP can be present in imperatives
- c. externalized/initial XP reconstructs for the purposes of variable binding
- d. externalized/initial XP must be specific (referential)
- e. externalized/initial XP can undergo topic drop

Assuming that externalized XPs in Malagasy are topics, we correctly predict that they cannot, in general, be focused, on the assumption that topic and focus are mutually exclusive categories (Bach 1971, Lambrecht 1994). This prediction is confirmed in (30a) for Malagasy. To focus the externalized argument, the focus construction discussed in section 4 is used, (30b).

(30) a. *mihinana trondro ilay zaza fotsiny Malagasy
   eat.AT ²sh [this child only]
   b. Ilay zaza fotsiny no mihinana trondro.
      this child only PRT eat ²sh
   ‘Only this child eats fish.’

(31) a. *bare denne boka leste Lars Norwegian
    only this book read Lars
   b. Lars leste bare denne boka.
      Lars read only this book
   ‘Lars read only this book.’

There is no incompatibility between the externalized argument/initial XP and imperative clause structure, however (examples from Pearson 2005:420). This is expected because there is no inherent reason to prohibit a topic in imperative clauses, under the assumption that they have a full-fledged clause structure.

(32) a. Vonoin’ i Soa ny akoho Malagasy
    kill.TT Soa the chicken
   ‘Soa is killing the chickens.’
   b. Vonoy ny akoho
      kill.TT.IMP the chicken
   ‘Kill the chickens!’

(33) a. Das Buch gab Hans schon zurück German
    the book gave Hans already back
   ‘Hans already gave the book back.’
   b. Das Buch gib mal zurück!
      the book give.IMP PRT back
   ‘Give the book back!’
Pearson indicates that both Malagasy externalized elements and Germanic initial XPs show reconstruction for the purposes of variable binding. The examples in (34a) and (35a) illustrate that a theme (underlined) that occupies the final or initial position in Malagasy and Germanic, respectively, can nevertheless contain a variable bound by the agent (examples from Pearson 2005:423–24). (34b) and (35b) illustrate that an agent in the privileged position (underlined) in each language can, of course, also bind a variable inside the theme argument.

(34) a. Novangian’[ny mpianjatra tsirairay], [ny rainy], omaly. Malagasy
visit.TT the student each the father.3S yesterday
‘His father, each student, visited yesterday.’

b. Namangy [ny rainy], [ny mpianjatra tsirairay], omaly
visit.AT the father.3S the student each yesterday
‘Each student, visited his, father yesterday.’

(35) a. [Seinen, Vater] hat [Jeder Student], gestern besucht. German
his.ACC father has every.NOM student.NOM yesterday visited
‘His, father, every student, visited yesterday.’

b. [Jeder Student], hat gestern [seinen, Vater] besucht.
every.NOM student.NOM has yesterday his.ACC father visited
‘Every student, visited his, father yesterday.’

The restriction of the initial XP/external argument to referential expressions, (29d), has different manifestations in Malagasy and Germanic. In Malagasy, the externalized element must have a determiner (Pearson 2005:419):

(36) a. Nihinana ilay voankazo *(ny) gidro. Malagasy
eat.AT that fruit the lemur
‘The/*A lemur ate that fruit.’

b. Nohanin’ ny gidro *(ilay) voankazo.
eat.TT the lemur that fruit
‘The lemur ate that fruit/*fruit.’

We hypothesize that the presence of an overt determiner signals specificity (referentiality) rather than definiteness. A similar proposal for Māori determiners is advanced in Chung and Ladusaw 2004. The absence of an overt determiner (ny) or demonstrative is associated with the nonspecific reading. Topics are by definition specific (see Lambrecht 1994, Gundel, Hedgert, and Zacharski 1993, for extensive discussion), and so it is unsurprising that Malagasy external arguments have to appear with an overt determiner. In Germanic, where the determiners express definiteness rather than specificity (Christophersen 1939, Prince 1998a, and many others), indefinite initial DPs are possible, if rare (Pearson 2005:419):9

(37) a. Bókina/??Bók keypti Jón. Icelandic

b. Ljóbók mun hann aldrei kaupa.
poetry.book.ACC will he.NOM never buy
‘A poetry book he will never buy.’

9. We are grateful to Jóhannes Gísli Jónsson, Dianne Jonas, Joan Maling, and Halldór Sigurðsson for the discussion of Icelandic data.
Turning to the topic drop phenomenon of interest, characteristic (29e), it is well documented that the Germanic languages have the ability to drop the initial XP in a V2 structure under certain conditions (Balkenende 1995 for topic drop in Dutch, Huang 1984 and Sigurðsson 1989:139–48 for topic drop in German, Sigurðsson 1993 for topic drop in Old Icelandic, Sigurðsson 1989:139–48 for Swedish, Prince 1998b for Yiddish, among others). Icelandic topic drop examples are in (38) (Sigurðsson 1989:254–55).

(38) a. (Ég) ekki a ekki. Icelandic
   I recognize that not
   ‘I don’t recognize that.’
b. (A) ekki ég ekki.
   that recognize I not
   ‘That I don’t recognize.’

Only the initial XP in a V2 clause can drop, not a noninitial subject, (39a), or an object, (39b).

(39) a. Núna ekki *(ég) a ekki. Icelandic
   now recognize I that not
   ‘Now I don’t recognize that.’
b. Núna ekki ég *(a) ekki.
   now recognize I that not
   ‘Now I don’t recognize that.’

Pearson 2005 explicitly points out that Malagasy, too, has a rule of topic drop (see also Rahajarizafy 1960, Keenan 1976). In Malagasy, of course, the rule targets the final XP, rather than a clause-initial XP as in Germanic. The Malagasy examples in (40) parallel the Icelandic examples in (38). As in Icelandic, nonsubjects cannot be dropped, (41) (examples from Pearson 2005:421):

(40) a. Mamangy an’ i Tenda (izy). Malagasy
   visit.AT ACC Tenda 3.NOM
   ‘He is visiting Tenda.’
b. Vangian’ i Naivo (izy).
   visit.TT Naivo 3.NOM
   ‘Him, Naivo is visiting.’

(41) a. Mamangy *(azy) i Naivo. Malagasy
   visit.AT 3.ACC Naivo
   ‘Naivo is visiting him.’
b. Vangian- *(-ny) i Tenda.
   visit.TT 3 Tenda
   ‘Tenda, he is visiting.’

The phenomenon is characteristic of colloquial speech and informal writing (Sigurðsson 1993:254, Pearson 2005:421). Pearson indicates that in Malagasy it is ‘reasonably common in texts when a particular referent persists across several sentences in a stretch of discourse. …’ We thus see that Germanic languages and Malagasy share characteristics (29a–e).

Pearson 2005 uses some of these facts, and others, to argue that the Malagasy externalized element, in fact, occupies an A’ position external to the clause, much like the topic XP in the Germanic V2 languages occupies spec,C under many accounts.10 We
will adopt this fundamental insight and encode the topic status of Malagasy externalized elements by locating them in a rightward specifier of an A’ projection (see MacLaughlin 1995 for a similar proposal). For simplicity, we will identify this A’ projection as IP; spec,I is an A’ position. For clarity, we will relabel IP as TopP as a reminder of its A’ status:

(42) Germanic

\[
\begin{array}{c}
\text{CP} \\
\text{XP}_1 \\
\text{C} \\
\text{C'} \\
\text{V}_{\text{finite}} \\
\end{array}
\]

\[
\begin{array}{c}
\text{TopP/IP} \\
\text{Top'} \\
\text{DP}_1 \\
\text{e}_i \\
\end{array}
\]

Malagasy

The topic drop phenomenon, then, is that spec,C or spec,Top may be unpronounced under certain discourse conditions. In the next section, we develop an analysis of topic drop that can account for both Germanic and Malagasy.

5.3 TOPIC DROP IN MSC-fa: A pro ANALYSIS. Under the above conception, the topic drop phenomenon entails that the XP in the specifier of CP or TopP may be unrealized in some situations. It is not literally deleted, however; rather, we will propose that in some cases this XP may be \textit{pro}, the null pronominal well known from \textit{pro}-drop languages. Typically, null pronominals are associated with the subject position but null topics are also well documented (Lambrecht 1994:93–101, 323–29). In the structure we just introduced above, \textit{pro} is located in spec,C or spec,Top. In what follows we develop the analysis for Malagasy and hypothesize that it can be extended to Germanic with minimal modifications.

Rizzi’s (1986) influential theory of \textit{pro} provides a framework in which to understand the limited distribution of \textit{pro} in Malagasy. That approach to \textit{pro} has been labeled the identification hypothesis (Jaeggli 1982, Chung 1984). For Rizzi, \textit{pro} must satisfy two distinct identification conditions: it must be licensed, and it must be recoverable. FormaL LICENSING requires that \textit{pro} be in an appropriate structural relationship with a licensing head. RECOVERY says that information regarding the identity of \textit{pro} must be recoverable or determinable. We discuss licensing in this section and address the recovery aspect of \textit{pro} in the following section.

For Malagasy, the licensing requirement is straightforward: \textit{pro} is licensed only in spec,TopP by the head Top°. For Germanic, the licensing head is usually assumed to be C°.

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10. More precisely, Pearson adopts an articulated Comp structure (Rizzi 1997) in which CP consists of at least a Topic Phrase (TopP) dominating a Wh Phrase (WhP). The overt subject is base-generated in the clause-peripheral spec,Top position and it is coindexed with a null operator that has moved to spec,WhP from a clause-internal position. We do not adopt this more complex structure.

11. See Diesing 1990 (Yiddish), Aissen 1996 (Tzotzil), Ordóñez and Treviño 1999 (Spanish), and Sturgeon 2006 (Czech) for other analyses in which spec,I is an A’-position.
This correctly accounts for the fact that topic drop is not possible for nonexternalized elements, as they are not located in spec,Top. We thus account for the data in (41), repeated here as (44).

(44) a. Mamangy *(azy) i Naivo.
   visit.AT 3.ACC Naivo
   ‘Naivo is visiting him.’

b. Vangian- *(ny) i Tenda.
   visit.TT 3 Tenda
   ‘Tenda, he is visiting.’

The analysis correctly predicts that topic drop will not target a subject that is not in spec,Top, even if it is a topic. Malagasy has a topic-marking, left dislocation construction illustrated in (45) in which an XP is fronted followed by the particle dia (Keenan 1976:272–73, Paul 2000:148–52):

(45) Rasoa dia nanapaka bozaka omaly.
   Rasoa TOPIC cut.AT grass yesterday
   ‘Rasoa, she cut the grass yesterday.’

Topic drop is not possible from the left dislocated, pre-dia, position:

(46) *pro dia nanapaka bozaka omaly
    TOPIC cut.AT grass yesterday
    (‘[Her], she cut the grass yesterday.’)

This follows in our analysis because the initial XP is not in spec,Top, even though it has the semantic and pragmatic properties of a topic, in this case, the “aboutness” reading.

Our analysis also correctly predicts that topic drop is not restricted to complement clauses. Topic drop and pro will be possible in adjunct clauses as long as the adjuncts contain TopP:

(47) a. Tsy nianatra Rabe, fa narary pro.
    NEG study Rabe because PAST.sick
    ‘Rabe did not study because he was sick.’

b. Homeko valisoa ianao i raha mety mihira pro.
    FUT. give.TT.1S reward you if willing sing
    ‘You will be given a reward by me if you agree to sing.’

Returning to the MSC, the missing externalized element of the complement clause is pro, licensed by Top° in that clause:

(48) Manantena Rabe, [fa [[hividy fiara t]vP pro]TopP].
    hope.AT Rabe that buy.AT car
    ‘Rabe hopes to buy a car.’

13. We assume that the topic occupies the specifier of a phrase headed by dia. The dia-phrase is possibly one of the projections in Rizzi’s (1997) left periphery. The exact identity of this projection is not important as long as it is not TopP used above.
14. We thank an anonymous reviewer for bringing this fact to our attention.
Here, too, we saw that a missing complement clause with a nonexternalized element expressed by *pro is ungrammatical:

(49) a. *manantena Rabe, [fa hamangy *pro, Rasoa] = (9)
   hope Rabe that visit.AT Rasoa
   (‘Rabe hopes that Rasoa will visit him.’)

(49) b. *manantena Rabe, [fa hovangiana *pro, Rasoa] = (10)
   hope Rabe that visit.TT Rasoa
   (‘Rabe hopes that Rasoa will be visited by him.’)

The voice of the embedded clause is not relevant, as long as *pro corresponds to an externalized element. In (50), the embedded verb is in the theme topic form.15

(50) Manantena Rabe fa hofidina *pro,.
   hope Rabe that FUT.choose.TT
   ‘Rabe hopes that he will be chosen.’

(43) thus accounts for the positional restrictions on the null topic. *Pro will not appear in any position except spec,TopP, because it would then be unlicensed. In the next subsection we turn to the more challenging task of determining the interpretation of the missing element.

5.4 REFERENTIAL RECOVERY OF *pro. The second half of Rizzi’s identification hypothesis for *pro involves recovery. Recovery requires that information regarding the referential identity of *pro be available. We propose that this is done via an interpretive, discourse-oriented rule:

(51) RECOVERY OF *pro IN MALAGASY
    coinindex *pro with the current discourse topic

Our rule has parallels with Huang’s (1984) topic-chain interpretation rule for the null topic operator in Chinese: “We may assume that there is a rule of coindexation, in the discourse grammar of a discourse-oriented language, which coindexes an empty topic node with an appropriate preceding topic (Huang 1984:550).” This rule is responsible for interpreting *pro as the current topic in the discourse. This rule accounts for, but is not limited to, the two core instances of topic drop: its use in root clauses, (40) repeated here as (52), and its use in MSC-*fa.

(52) a. Mamangy an’ i Tenda (izy).
   visit.AT ACC Tenda 3.NOM
   ‘He is visiting Tenda.’

(52) b. Vangian’ i Naivo (izy).
   visit.TT Naivo 3.NOM
   ‘Him, Naivo is visiting.’

In (52), there is no syntactic representation of the discourse topic, precluding a syntactic recovery condition.16 The missing topic will be interpreted as the current discourse

15. The analysis predicts that NP Drop should be impossible if the complement clause lacked a Topic Phrase, because there would be no head to license *pro. We have not found a configuration that tests this prediction.

16. In earlier versions of this work, we proposed that the interpretation of *pro was recovered in part syntactically. We thank an anonymous reviewer for pointing out the limited application of that line of thought.
topic, a notion we will take up below. In most cases, the current discourse topic should be the referent of the DP in a preceding spec,TopP. In embedded contexts such as the MSC-fa in (53), the recovery condition in (51) will pick out the most immediately preceding DP in spec,TopP.

(53) Manantena Rabe, [fa hividy fiara pro].

hope Rabe that buy.car

‘Rabe hopes to buy a car.’

Here the current discourse topic has been syntactically declared as such by being in spec,TopP; it is also the closest DP to the embedded subject. Other DPs not in spec,TopP, if there are any, will be dispreferred as antecedents for pro.

The main difficulty in putting the proposed topic interpretation rule to work has to do with the elusive task of identifying the “current discourse topic.” The choice of discourse topic is known to be sensitive to a wide range of other factors besides structural cues. The literature on topic is enormous, and we will make no attempt to review it here. Instead, we will try to summarize the main components of the notion “topic” that we believe may play a role in the recovery of pro in Malagasy. We hypothesize that when these components are associated with different referents, the recovery is not as predictable as it is in the more straightforward cases such as (53). In addition to the association with the syntactic position spec,TopP, which we have shown to play a role, there are at least three factors that influence the identification of a particular expression as the current topic: syntactic locality, activation of the referent, and semantic/pragmatic implicatures of the verb associated with this expression. Locality would guide pro to select a structurally closer antecedent, even if it is not the DP in spec,Top (see Shi 2000 for Chinese). That is, recovery is guided by the syntactic structure, even though the recovery condition itself is not a syntactic principle. Activation refers to the level of salience of a referent in a speaker’s working memory. Pronominal elements, especially those associated with discourse participants (first and second person pronouns), have referents that are highly active in working memory (Garrod, Freudenthal, and Boyle 1994; Garnham 2001). This gives them an advantage over other expressions in terms of topic continuity—the ability of the topic referent to remain accessible over several sentences in discourse (Givón 1983). Lastly, the choice of “current topic” seems to depend upon the matrix predicate. The role of predicate semantics in topic identification is not fully understood, but two observations are in order here. First, there is experimental evidence that referential interpretation is highly sensitive to such subtle semantic factors as causality (Green and McKoon 1995), which may provide different preferences for topic choice depending on the matrix or embedded predicate. Second, different predicates are used preferentially with different persons; for instance, ‘think’, ‘know’, and ‘guess’ in American English occur most frequently with first person singular subjects (Scheibman 2002). Assuming that such preferences recur across languages, the semantics of a given predicate should be expected to bias the identification of a null topic.

When all these factors work together the identification of a particular expression as topic proceeds in a rather straightforward manner. It is when these factors conflict that difficulties in identifying and defining a topic arise. Different researchers then place different emphasis on each of those factors, which leads to the competing definitions
of topic in the literature: definitions that emphasize the structural position (Huang 1984, Kiss 1995), definitions that emphasize activation (Chafe 1976; Gundel, Hedberg, and Zacharski 1993; Ariel 1990), and definitions that emphasize verb implicatures or entailments (Miltsakaki 2003), to name just a few.

A discourse-based recovery condition is appealing because it recognizes the competing components that contribute to the concept of “current topic.” However, because there is no clarity regarding the inventory of competing components and the weight of each factor, a discourse-based recovery condition raises a number of practical analytical problems. The most severe, in our view, is the lack of clear predictions regarding the recovery of pro in examples beyond the simple cases directly above. In what follows, we consider additional data and the extent to which the recovery condition successfully accounts for the interpretation.

We have already seen that pro cannot take a non-c-commanding DP as its referent. (54) repeats (6) through (8).

(54) a. *antenain-dRabe fa hividy fiara pro
    hope.TT-Rabe that buy car
    (‘Rabe hopes to buy a car.’)

b. *manantena ny fianakavian-dRabe, fa hanambady an-dRasoa pro
    hope.AT the family-Rabe that marry ACC-Rasoa
    (‘Rabe’s family hopes that Rabe will marry Rasoa.’)

c. *manantena Rabe, sy Rakoto fa hanambady an-dRasoa pro
    hope.AT Rabe and Rakoto that marry ACC-Rasoa
    (‘Rabe and Rakoto hope that Rabe will marry Rasoa.’)

We hypothesize that these noncommanding DPs are unfavorable topics in the higher clause. The DP that contains them is the strongly preferred discourse topic because it is more local and in spec,TopP. Choosing a non–c-commanding DP as the antecedent for pro violates syntactic locality, a component of discourse identification that we discussed above. Further evidence for the relevance of c-command to locality comes from the data in (55a) and (56a) showing that the MSC is not possible with sentential subjects. The examples can be expressed by using an overt pronoun, (55b) and (56b), or an alternative verb with the MSC but no sentential subject, (55c) and (56c). We propose that the overt DPs in (55a) and (56a) are not possible discourse topics because they are not structurally local enough.

(55) a. *mahagaga an-dRasoa, [fa no²dina pro]
    surprise ACC-Rasoa that choose.TT
    (‘That she was chosen surprised Rasoa.’)

b. Mahagaga an-dRasoa, [fa no²dina izy].
    surprise ACC-Rasoa that choose.TT
    ‘That she was chosen surprised Rasoa.’

c. Gaga Rasoa, [fa no²dina pro]
    be.surprised Rasoa that choose.TT
    ‘Rasoa is surprised that she was chosen.’
(56) a. *antenain-dRabe, [fa hividy fiara pro]
    hope.TT-Rabe that buy car
      (‘That he will buy a car is hoped by Rabe.’)
b. Antenan-dRabe, [fa hividy fiara izy].
    hope.TT-Rabe that buy car
      ‘That he will buy a car is hoped by Rabe.’
c. Manantena Rabe [fa hividy fiara pro].
    hope.AT Rabe that buy car
      ‘Rabe hopes that he will buy a car.’

As long as other restrictions are followed, the antecedent can be multiple clauses
up, as in the focus construction example in (57), repeated from (24a). An object may
also intervene between pro and its antecedent, (58), repeated from (19) through (21). In
both cases, the antecedent for pro is the discourse and syntactic topic in spec,TopP even
though structural locality is reduced.

(57) Manantena Rasoa [fa rahampitso [no handeha pro]].
    hope Rasoa that tomorrow PRT go
      ‘Rasoa hopes that it is tomorrow that she will go.’

(58) a. Niteny tamin-dRasoa Rabe i [fa hianatra teny gasy pro].
    tell to-Rasoa Rabe that learn Malagasy
      ‘Rabe said to Rasoa that he (Rabe) will learn Malagasy.’
b. Mampahatsiahy ny zanany Rasoa i
    remind the children Rasoa
    [fa hanidy ny varavarana proi].
    that lock the door
      ‘Rasoa reminded her children that she (Rasoa) will lock the door.’
c. Nandresy lahatra an-dRabe ny ray aman-dreniko i
    persuade ACC-Rabe the parent.1S
    [fa haka rivotra proi].
    that FUT.take.AT air
      ‘My parents persuaded Rabe that they should take a vacation.’

The recovery condition suggests that the MSC will be impossible if the higher
predicate has no topic. This is the case in nominalizations. We assume that they do not
have a discourse topic. They thus do not allow the MSC:

(59) a. ny fanantenan-dRabe, [fa hitety any Madagascar izyl/#pro]
    the hope-Rabe that travel LOC Madagascar 3S.NOM
      ‘Rabe’s hope that he will travel in Madagascar’
b. ny fanirian-dRabe, [fa hanambady an-dRasoa izyl/#pro]
    the desire-Rabe that marry.AT ACC-Rasoa 3S.NOM
      ‘Rabe’s desire that he marry Rasoa’

Finally, in some cases, pro may be coreferential with an object. That is, with some
transitive verbs, the object can identify pro, (60a).
(60) a. Nandresy lahatra ah$$_k$$ Rabei fa tsy maintsy haka rivotra pro$$_{kh}$.
   ‘Rabe persuaded me that he/I should take a vacation.’

b. Nampahatsiahy ah$$_k$$ Rabei fa hanidy ny varavarana pro$$_{ph}$.
   ‘Rabe reminded me that he/*I will lock the door.

The pattern is inconsistently allowed, however, as seen above, and seems to depend
upon the matrix predicate. Such an option is allowed by the recovery condition but it is
as yet unclear under what conditions it is expected to occur. We leave the investigation
of such effects for future work.

To summarize our analysis, a topic in a privileged position, spec,Top, may be an
empty category that we have identified as pro just in case there is a discourse topic that
can serve to identify pro. The DP in spec,Top is typically chosen as the antecedent for
pro because it is a topic both structurally and syntactically and it strongly overrides
other choices in the canonical cases. This proposal permits a range of data that are not
accounted for in a control analysis.

6. FINITE CONTROL. We now turn to MSC-$$mba$$. The data in section 4 indicated
that the construction has characteristics of control in forcing specific restrictions on the
interpretation of the missing element. Because Malagasy has no infinitives, it uses verb
forms inflected with voice morphology and the irrealis/future morpheme $$h(o)$$.

   hope buy,FUT car Rabe
   ‘Rabe hopes to buy a car.’

b. Manantena Rabe [mba hivydi fiara].
   hope Rabe COMP buy,FUT car

   ‘Rabe hopes to buy a car.’

The goals of this section are to offer an analysis of the finite control pattern within
Horstein’s (1999) movement theory of control (6.1) and to account for why finite
control is not possible with $$fa$$ (6.2).

6.1 A MOVEMENT ANALYSIS OF FINITE CONTROL. The two current
theoretical approaches to control within the Minimalist Program are the base-generated
analysis using the null formative PRO (Chomsky 1981, Landau 2000, and others)
and the movement-based analysis (Horstein 1999, 2003, and others). These two
approaches identify the missing controllee as PRO or a copy/trace of movement,
respectively. Finite control thus has the representation in (62).

(62) Manantena Rabe, [mba hivydi fiara PRO,ti]
   hope Rabe COMP buy,FUT car

   ‘Rabe hopes to buy a car.’
Landau 2004 develops an analysis of finite control within the PRO tradition. Here we would like to sketch out the movement-based analysis of finite control given that we have elsewhere offered movement analyses of other Malagasy control constructions (Polinsky and Potsdam 2002, 2003, Potsdam 2006c).

The fundamental idea is that the controller-controllee relationship is derived by movement of the controller from the embedded clause controllee position to the matrix clause controller position. Given our conception of Malagasy clause structure from section 5., the structure for (62) would be as in (63), sidestepping issues surrounding the internal structure of vP.

(63) TopP/IP
   /   \
  /     \  initial try
Top'   DP
   /     \
Top Rabe
   /     \
 vP manantena Rabe
     /     \ 'hope'
    /       \   CP
   /         \ DP Rabe
  /           \ manantena
 Rabe CP
    /       \ 'hope'
   /         \   DP
  /           \ C'
 Rabe C
    /       \ mba
   /         \ TopP/IP
Top'   DP
   /     \
Top Rabe
   /     \
 vP hividy Rabe fiara
     /     \ 'buy car'
    /       \   C
   /         \ Top'
 Top vP
   /     \
 Rabe

The controller Rabe begins in the embedded clause as the external argument of hividy ‘buy’. It then moves to the externalized position of the lower clause, spec,TopP. From there it moves to spec,C—an intermediate movement typically associated with “long-distance” movement out of CP, which we discuss further below. Rabe then moves to the matrix clause where it becomes the external argument of manantena ‘hope’. It finally moves to the higher spec,TopP as the matrix externalized element.17

A number of analytical issues require discussion here. First, as is required in Hornstein’s (1999) movement theory of control, movement into a theta position is allowed. We see this above where Rabe becomes the external argument of the matrix verb ‘hope’, moving to a position within the matrix vP where it receives the external theta role of ‘hope’.

Second, in undergoing movement out of a CP, we propose that the controller moves through the intermediate specifier of the CP headed by mba. This move is in keeping with general theory-internal requirements that even apparently long-distance movement be “local.” In Chomsky’s (2000, 2001, 2004) current phase-based system, this cyclic movement is implemented as follows: Movement is constrained by particular units called

17. Note that the word order of (63) does not match (62), as extraposition of the CP complement is not shown.
phases, of which CP is one. In order for an element to move out of a phase, it must first move to the edge of that phase. Thus, if an element is to move out of CP, it must stop in spec,C. What forces it to do this is that C° has a so-called EPP feature, which translates as an instruction that CP have a filled specifier. In the analysis at hand, C° mba has an EPP feature that allows movement out of the CP by licensing a stopping off point in spec,C. Without this EPP feature, such movement would not be possible.

Third, the derivation in (63) contains an instance of so-called Improper Movement (Chomsky 1981, Müller and Sternefeld 1993, and others). Improper Movement occurs when an element undergoes movement from an A'-position (nonargument position) to an A-position (argument position). This is seen above when the controller moves from spec,C, an A'-position, to the external argument position of manantena ‘hope’ within vP, an A-position. There are a number of potential solutions to this problem, including Hornstein’s (2001:76) suggestion that Improper Movement should not be a part of the current theoretical picture. We will take a more conservative approach and suggest that even if Improper Movement is part of the current theoretical picture, it is illusory in this derivation. There are two components to our proposal.

The first is that we follow Tanaka 2002 and Rodrigues 2004, which allow for a phase head to license an A or A’ EPP position. Intermediate landing sites in spec,C are thus not uniformly A'-positions. This permits us to stipulate that the specifier of C° mba is an A-position. Movement from spec,C to the external argument position of ‘hope’ does not now instantiate Improper Movement; instead, the offending movement is from the embedded spec,Top (an A'-position) to spec,C (now an A-position by stipulation). Ultimately, evidence for the A-position status of spec,C is desirable.

The second strand of the analysis is that we hypothesize that CP clauses headed by mba may lack TopP. It is often claimed that subjunctive/irrealis clauses are deficient in various ways. We cash out this intuition in Malagasy by proposing that they need not have the A'-projection TopP. The idea is supported by cross-linguistic claims that some embedded complements, control complements in particular, often lack a topic position (Rizzi 1997 for French and Kuroda 1972 for Japanese). Examples (64) through (66) illustrate this absence in English, French, and Japanese, respectively:

(64) *I tried, this movie, to watch.

(65) ??Je pense, ton livre, pouvoir le comprendre.
I think your book be.able.INF 3s understand.INF
*I think, your book, to be able to understand it’

(66) *Jiroo-ga kono-eiga-wa mi-yoo-to shi-ta
Jiro-NOM this-movie-TOP watch-DESID-COMPL do-PAST.DECL
*Jiro tried, this movie, to watch.’

Eliminating spec,TopP from the derivation removes the second instance of A'-movement because the movement chain now contains no internal A'-positions.

18. This feature is optional because movement out of the CP is not required, as in (i).

(i) Manantena Rabe mba handeha ho any Frantsa aho.
hope.AT Rabe COMP FUT.go.AT LOC France 1s.NOM
‘Rabe hopes that I will go to France.’

19. This sentence is acceptable with the contrastive interpretation of the embedded DP-wa (‘Jiro tried to watch THIS movie.’), which is immaterial to our discussion.
With these two innovations, the derivation for finite control is (67) rather than (63). The embedded TopP is eliminated and spec,C is an A-position. All movements but the last are A-movements and there is no Improper Movement. This type of derivation adequately captures the facts of the MSC-\textit{mba} and can, with minor modifications, be extended to attested cases of finite control in other languages.

(67)
\begin{tikzpicture}[scale=0.8, every node/.style={scale=0.8}]
  \node (TopP/IP) at (0,0) {TopP/IP};
  \node (Top) at (-1,1) {Top};
  \node (Top') at (1,1) {Top'};
  \node (DP) at (0,2) {DP};
  \node (vP) at (2,2) {vP};
  \node (manantera) at (-2,3) {manantera \textit{Rabe}};
  \node (CP) at (-2,4) {CP};
  \node (DP') at (2,4) {DP'};
  \node (C) at (0,5) {C'};
  \node (CvP) at (2,5) {vP};
  \node (mba) at (-3,6) {mba \textit{hividy \textit{Rabe fiara}} \textit{\textquoteleft buy\textquoteleft car} \textquoteleft}.

6.2 RULING OUT FINITE CONTROL WITH \textit{fa}. The solution above also allows us to account for why the complementizer \textit{fa} does not permit finite control. Empirically, we know that it does not, because otherwise MSC-\textit{fa} would show the control characteristics discussed in section 4. We suggest that, in contrast to \textit{mba}, \textit{fa} requires a TopP complement. In other words, it does not have the option of the reduced clause structure shown in (67), in which it would directly take a vP complement. Finite control with \textit{fa} is therefore ruled out because its derivation would necessarily involve Improper Movement. The A-movement chain would contain the A'-position spec,TopP.

A second way to rule out finite control with \textit{fa} would be to stipulate that, unlike with \textit{mba}, spec,C,\textit{fa} is an A'-position but never an A-position. Although rather technical in its details, the underlying claim encoded by the analysis is that indicative CPs are less transparent to movement and other syntactic relations than subjunctive/irrealis clauses (Polinsky and Potsdam 2006 and references therein). In keeping with the tradition of parallelism between nominal and clausal domains (e.g., Partee 1984), we propose that indicative CPs are akin to definite DPs, which are known to resist extraction (Chomsky 1973), while irrealis CPs can be equated with indefinite DPs, which are transparent. With respect to the MSC, the asymmetry between the indicative clauses with \textit{fa} and the irrealis clauses with \textit{mba} is that the former are less permeable to movement.

7. SUMMARY. In this paper, we have examined the missing subject construction (MSC) of Malagasy in which a missing argument of a complement clause is interpreted as coindexed with a higher argument, as repeated below:

20. Extraposition of the CP is not shown.
We have argued that there are two distinct syntactic constructions here depending upon the choice of complementizer. When the complementizer is the irrealis *mba*, we have a control structure. The construction parallels other instances of finite control discussed and analyzed in Landau 2004. It seems clear at this point that finite control is a reality, as Landau has emphasized. Malagasy is not just another addition to the set of languages that have finite control; it differs from those other languages in having no person/number agreement, which some thought of as a prerequisite for finite control.

When the complementizer is the indicative *fa*, the missing subject is due to topic drop, not control. Malagasy allows privileged elements in a topic position to be unprounounced when their referent can be recovered from the syntax and the discourse. Malagasy topic drop is parallel to that found in the Germanic languages, and perhaps also Chinese (Huang 1984), Finnish, and Brazilian Portuguese (Rodrigues 2004 and references therein). Our analysis also supports the idea that *pro* is not uniformly set for the entire system of a particular language. A language may have *pro* in various, often restricted, areas of its grammar as long as the relevant licensing conditions are met.

**REFERENCES**


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