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Malagasy Control Structures*

Charles Randriamasimanana
University of Oxford

My main purpose here is to describe control structures in Malagasy, contrasting their behavior with that of verbs of saying. It will transpire that on the one hand, a control predicate constituent-selects the tense-marker on the adjacently embedded structure, allows an optional complementizer *ny* 'to, for-to' and prototypically rules out a postposed sentential object labeled "CP adjunct clause". On the other hand, a verb of saying does NOT constituent-select the tense-marker on the accompanying structure, allows a complementizer *fa* 'that'—but NEVER the complementizer *ny* 'to, for-to' nor the complementizer *mba* 'in order to, please'—and typically allows a postposed CP adjunct clause with an obligatory complementizer. The crucial importance of the distinction between an argument and an adjunct clause will be illustrated as such a distinction will help account for a subcategory of aspectual verbs, which requires not an embedded CP, but rather an InflP adjunct structure.

Key words: control, verb of saying, adjacency, argument, adjunct, tense

1. Introduction

My main purpose here is to describe control structures in Malagasy, contrasting their behavior with that of verbs of saying. It will transpire that a subject or object control predicate constituent-selects the tense on the embedded verb,[1] which must be adjacent to the matrix verb; we have strict subcategorization. By contrast, with a verb of saying we do not have strict subcategorization at all, as the tense on the accompanying predicate is free and furthermore, we only have adjunction of a CP type of structure. In-between those two extremes, we have the case of predicates like *mianatra* 'to learn (how to)', which requires an InflP type of adjunction[2] along with another subtype of non-CP structure.[3] This paper is organised in eight parts. In the first section, a review of the literature is provided, which establishes the distribution of Malagasy complementizers along with some background information, and a number of assumptions are made explicit. In the second and third sections, the main characteristics of subject as well as object control predicates are described in some detail and their main features illustrated; this is contrasted with the situation with verbs of saying in the fourth section. The fifth section deals with a range of empty

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1 This is already apparent from the examples provided in Randriamasimanana (1986).

2 As shown in Randriamasimanana (1999:523-525), the hallmark of adjunction in Malagasy is the occurrence on the two relevant predicates of the same tense-marker.

3 The contrast between a CP adjunct and a non-CP adjunct will be crucial in what follows. Intuitively a CP adjunct structure immediately follows a grammatical subject, whereas a non-CP adjunct shows up adjacent to the matrix predicate.

categories[4] in subject control constructions, which are associated with a grammatical subject in both control and non-control predicates. The sixth section addresses the issue of Malagasy gerunds in object control constructions, whereas the seventh section briefly characterizes complex predicates involving coordination. The last section sums up the main conclusions reached in the present study.

1.1 Review of literature

The published literature on Malagasy control structures generally does not distinguish between verbs of saying and control predicates and in the process ignores the crucial importance of the notion of strict-subcategorization, thus neglecting the distribution of complementizers such as *ny* 'to, for-to' in subject control constructions involving control, *mba* 'in order to, please' in object control structures involving control and *fa* 'that', a characteristic of non-control constructions.

By and large, Keenan (1976:247-301) lumps together control predicates and verbs of saying although he adds a verb subcategory labeled "raising to object" and comprising items like *manantena* 'to hope' and *milaza* 'to say'. For example, under the label Equi-1 corresponding to subject control, Keenan (1976:276-279) includes predicates like *mihevitra* 'to think'; under the label Equi-2 for object control predicates, Keenan (1976:278-279) has verbs like *manaiky* 'to accept' although he also adds *mikasa* 'to intend'; finally, Keenan (1976:283-286) classifies verbs like *manantena* 'to hope' in the "raising to object" subcategory.

Randriamasimanana (1986) distinguishes between control predicates and verbs of saying, which show up under the label "raising to object". In addition, the same author (1986:495-536) identifies Equi-1 or subject control predicates like *mikasa* 'to intend', *mitetika* 'to plan' and *mikatsaka* 'to strive' as well as Equi-2 or object control predicates like *mibaiko* 'to order', *manery* 'to force' as well as *manambitamby* 'to cajole'. Verbs of saying like *mihevitra* 'to think' and *manantena* 'to expect' are now classified under the "raising to object" subcategory. In this classification, it is explicitly stated that subject control predicates can accommodate an optional complementizer *ny* 'to, for-to' and that object control predicates can take an optional complementizer *mba* 'in order to, please'; both require a future tense in the adjacently embedded structure. On the other hand, Randriamasimanana (1986:549-551) contrasts and illustrates the behavior of control predicates with that of other verbs which can accommodate the Malagasy general complementizer *fa* 'that' and which do not impose the future tense constraint on the accompanying structure. On page 543 item number 8, this author describes

[4] As already outlined in Randriamasimanana (1995:306-309), Malagasy shows a whole range of empty positions, a number of which will be dealt with in this short paper.

non-control predicates and claims that "there is no restriction on the embedded verb", as illustrated in examples under (198).

Somehow in Paul et al. (1998) and Pearson (2001), the distinction between Equi-1 and Equi-2 disappears and in the process the requirement that the future tense is mandatory inside the structure embedded under a control predicate vanishes as well. Thus Paul et al. (1998:117, e.g. 17a) simply ignore tense altogether while Pearson (2001:116, e.g. 82) re-analyzes the embedded future tense as "irrealis mood". In addition, they both have verbs such as *manosika* 'to physically push', a non-control verb misused as a control predicate. Ignoring the Malagasy data already described in the published literature, Potsdam (2004:2) states that "distribution of tense morphology in controlled clauses is unclear" and Polinsky and Potsdam (2005) overgeneralize the use of the complementizer *fa* 'that' and extend it to control predicates. Even a subject control predicate like *mikasa* 'to intend' is now claimed to take the general complementizer *fa* 'that', an irretrievably ungrammatical option, as explicitly illustrated in Randriamasimanana (1986:502, e.g. 117c).

1.2 Background information

The control structures to be described in this paper are by and large those Malagasy constructions which do not involve morphologically complex predicates using a secondary causative prefix such as *amp(a)-* in sequences such as *nampandeha* comprising *n* + *amp* + *(h)andeha* '(PAST-CAUSATIVE-(FUT)go) to ask someone to go'. The relevant constructions are those where a first verb V1 embeds a second verb V2, where V1 and V2 are two distinct dictionary entries and where a complementizer such as *ny* 'to, for-to' is optional between V1 and V2. The crucial relationship between V1 and V2 is one of subordination of the second predicate to the first one and not coordination; this is indicated by the obligatory future tense-marker on the embedded verb since tense is constituent-selected by the higher control verb.

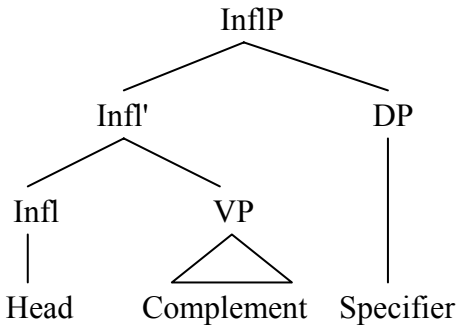
As described in some detail in Randriamasimanana (1986:29-74), the degree of control retained by the referent of the subject of the embedded verb depends on (i) the nature of the embedded predicate, i.e. whether it describes a deliberate kind of activity or is a stative predicate, and (ii) the presence or absence of intent as indicated by the features characterizing the verb in question, as demonstrated by compatibility with certain adverbial modifiers.

Assuming that the referent of the matrix verb is a "causer" and that of the embedded predicate is a "causee", then in a subject control construction involving V1 verbs like *mikasa* 'to intend', which can accommodate the complementizer *ny* 'to, for-to', the "causee" is identical to the "causer". In an object construction comprising a V1 like

manantena 'to expect', which can optionally take the complementizer *mba* 'in order to, please', involving an object control verb, for instance, the "causee" can be different from the "causer". Now a complication arises as the Malagasy functional item *ny* can be either a clausal complementizer in its unmarked use, i.e. introducing an entire clause with a subject control configuration, or in its marked use as a nominalizing complementizer simply introduces a gerund, i.e. without a surface grammatical subject but with an object control configuration. Indeed the gerund alternative allows Malagasy speakers to shift from a subject control construction with an unmarked complementizer *ny* 'to' to an object control structure with its marked counterpart or nominalizing complementizer *ny* 'for-to' involving a gerund, as explained in Sections 6.1 and 6.2.

1.3 Assumptions

In a matrix clause, we have an unmarked construction where the Specifier is to the right in this V(erb)O(bject)S(ubject) language as illustrated in (1a), although in an embedded structure it appears on the left-hand side, as suggested by the data found in (11) and (12). The VOS order is the unmarked one, while SVO is marked—as will become apparent with (24). In the unmarked VOS order, there is a Specifier-Head relation described in some detail in Randriamasimanana (2002) and involving functional elements within the head such as voice, tense and aspect, which among other things impose the relevant semantic interpretation on a given Specifier, for example, partitive or non-partitive (consult the configuration shown in Figure 1).



where head = lexical = {V, P, N, A}; head = functional = {voice, tense, aspect, agreement}; DP = Determiner Phrase

Figure 1. X-Bar theory and tree geometry

It is also crucial to note that a Malagasy passive always involves a stem and NOT a root. The general morphological template for an active voice predicate in Malagasy is the following: "tense-marker + primary verbal prefix *an-* or *i-* + root". The one for

the regular passive voice involving promotion of a direct object or an indirect object to grammatical subject is: "tense-marker + zero primary verbal prefix + stem + suffix *-ina* or *-ana*". In addition, for the so-called "circumstantial" passive form involving promotion of an oblique argument to grammatical subject, we have this template: "tense-marker + primary verbal prefix *an-* or *i-* + stem + suffix *–ana*".

The single most important assumption related to Malagasy passives to be kept in mind is this: there exist two major types of passive depending on the grammatical function occupied by the relevant argument to be "promoted" to grammatical subject. Thus, we obtain the first type only involving a stem—and NOT comprising any primary verbal prefix in addition to the tense slot, such an absence being indicated in the gloss as zero symbolized as *ø*—as well as a suffix when (i) a direct object is promoted to subject triggering suffixation with *-ina* in general, as shown in (1b) below, or when (ii) an indirect object is promoted to subject triggering suffixation with *-ana* by and large, as illustrated in (2b) below. On the other hand, the second type of passive also called "circumstantial" passive requires both a primary verbal prefix—typically either verbal prefix *an-*or *i-*—as well as a stem and the suffix *-ana*, as made explicit in (3b).

(1) a. Manantena an'io i Paoly.
M- an- antena an' io i Paoly.
PRES- PREF.AN-expect ACC this D.SG[5] Paul
'Paul expects this.'

b. Antenain'i Paoly io.
ø- antena- in(a)' i Paoly io.
ZERO-be.expected-SUF.INA.by D.SG Paul this
'This is being expected by Paul.'

(2) a. Mandrakotra bodofotsy an'i Jeanne i Jaona.
M- an- d- rakotra bodofotsy an' i Jeanne i Jaona.
PRES-PREF.AN-EP.D-cover blanket IO D.SG Jeanne D.SG John
'John covers Jeanne with a blanket.'

b. Rakofan'i Jaona bodofotsy i Jeanne.
ø- rakof- an(a)' i Jaona bodofotsy i Jeanne.
ZERO-be.covered-SUF.ANA.by D.SG John blanket D.SG Jeanne
'Jeanne is being given a cover by John.'

[5] List of symbols and abbreviations by alphabetical order: A = adjective root, ACC = accusative, C = COMP = complementizer, D.PL = plural determiner, D.SG = singular determiner, EP = epenthetic, FUT = future, INFL = inflection, INFLP = inflection phrase, N = noun root, NONPERF = nonperfective aspect, P = preposition, PASS.FUT = passive future, PASS.PAST = passive past, PREF = prefix, PRES = present, SPEC = Specifier, SUF = suffix, V = verb root, > = mutate to, (...) = generally indicates optionality, --- = missing subject, subscript *i* = coreferentiality.

(3) a. Mandrakotra an'i Jeanne amin'ilay bodofotsy i Jaona.
M- an- d- rakotra an' i Jeanne ø-amin' ilay
PRES-PREF.AN-EP.D-cover ACC D.SG Jeanne NONPERF-with the
bodofotsy i Jaona.
blanket D.SG John
'John covers Jeanne with the (previously mentioned) blanket.'

b. Andrakofan'i Jaona an'i Jeanne ilay bodofotsy.
ø- an- d- rakof- an(a)' i Jaona an' i Jeanne
ZERO-PREF.AN-EP.D-be.covered-SUF.ANA.by D.SG John ACC D.SG Jeanne
ilay bodofotsy.
the blanket
'The (previously mentioned) blanket is being used by John to cover Jeanne.'

In (1a) with *manantena* 'to expect', (2a) with *mandrakotra* 'to cover' and (3a) with *mandrakotra* again, we have active voice verbs comprising a verbal prefix *an-* as well as a root—but NOT a stem; one major difference between the root *antena* in (1a) and the stem *antena* in (1b) is that with the first item, stress falls on *te*, whereas it falls on *na* with the second entry; the root *antena* 'expectation' is a noun, while the stem *antena* is a verb in the passive imperative mood and means something like 'let someone or something be expected'. In addition, in (1b), a direct object (DO) has been "promoted" to subject, thereby triggering suffixation with *-ina*; in (2b), an indirect object (IO) has been "promoted" to subject, triggering suffixation with *-ana*; and in (3b), an oblique-instrument argument has been advanced to subject requiring the presence of both the verbal prefix *an-*and the suffix *-ana*. Note that this was certainly not the case with advancement of a DO or an IO, both of which only require a suffix, but NOT a verbal prefix. Last but not least, in (1b), (2b) and (3b), there is no tense-marker to represent the present tense in the passive voice in front of the stem, hence the use of the symbol zero in the gloss, as symbolized by "ø". However, note that this symbol can, as in (3a), also represent the absence of another morpheme, i.e. a nonperfective aspect-marker as opposed to a perfective aspect-marker indicated by the prefix *t-* showing up on a preposition like *amina* 'with'. As used in (23), it can even represent the absence of a complementizer.

It may be worth pointing out the fact that it is the "circumstantial" passive form which is used in Malagasy gerund constructions. However, in the case of a gerund, the initial grammatical subject has been incorporated into the relevant "circumstantial" passive verb as an oblique agent. See Section 5 below for crucial details.

1.4 Some consequences

As previously stated, the main purpose of the present paper is primarily to describe control structures in Malagasy in the hope that the account proposed will enable us to rule out irretrievably ungrammatical sequences such as the one reported under footnote 8. In addition, for the past few years a so-called "backward control" has been proposed for Malagasy; the latest version shows up in Potsdam (2006) and is crucially based on sequences such as the following reproduced as is from the author:

(4) a. naneren'i Mery ny zaza$_i$ [hofafana Δ_i ny trano] FORWARD
forced Mary the child sweep the house
b. naneren'i Mery Δ_i [hofafan' ny zaza$_i$ ny trano] BACKWARD
forced Mary sweep the child the house
'Mary forced the child to sweep the house.'

where the subscript *i* means coreferentiality and where the delta symbol represents an empty syntactic position. However, neither (4a) nor (4b) is Malagasy, and this is quite obvious in several respects. First, the verb *naneren(a)* is supposed to be in the active voice, but in fact it can only be analyzed as a "circumstantial" passive sequence: "*n* + *an* + stem.*tere* 'be.tight' + *(a)na*" to which is attached the oblique agent *i Mery* 'Mary' while *ny zaza* 'the child' would be a direct object. Compare this with (25), which displays the relevant active voice form for 'forced'. Second, according to Section 6.1, because there is no grammatical subject in the structure, the latter should be a gerund. But the verb *manery* 'to force' is supposed to be the matrix predicate in (4). Furthermore, the second half of the utterance is in the regular passive voice, i.e. presumably promotion of an indirect object to subject with suffixation of *-ana*. Last but not least, "forward" refers to "forward control" as opposed to "backward" for "backward control".

2. Subject control and adjacency

As will be shown in this section, a subject control predicate constituent-selects the tense-marker on the embedded verb that it governs; such a governed verb is necessarily adjacent to the matrix predicate and can never be relegated to a position to the right of the matrix subject; furthermore, the only complementizer that can optionally accompany a subject control predicate is the complementizer *ny* 'to'.

2.1 Subject control predicates and strict subcategorization

A subject control predicate like *mikasa* 'to intend' constituent-selects the tense-marker on the adjacently embedded verb: the future tense is obligatory.

(5) a. Nikasa (ny) hividy boky i Jeanne.
N- i-kasa (ny) h- i-vidy boky i Jeanne.
PAST-I-intend COMP FUT-I-buy a.book(s) D.SG Jeanne
'Jeanne intended to buy a book/books.'

b. *Nikasa (ny) mividy boky i Jeanne.
N- i-kasa (ny) m- i-vidy boky i Jeanne.
PAST-I-intend COMP PRES-I-buy a.book(s) D.SG Jeanne

c. *Nikasa (ny) nividy boky i Jeanne.
N- i-kasa (ny) n- i-vidy boky i Jeanne.
PAST-I-intend COMP PAST-I-buy a.book(s) D.SG Jeanne

In (5a), the verb *hividy* 'will buy' accompanying *mikasa* 'to intend' is in the future tense: the sequence is fully grammatical. By contrast, in (5b) and (5c), the same verb is either in the present tense or in the past tense: both sentences are irretrievably ungrammatical. This difference in grammaticality is due to the fact that the matrix verb *mikasa* constituent-selects the tense-marker on the lower verb, a characteristic of strict subcategorization. This means that the accompanying predicate is embedded under *mikasa* 'to intend'. In addition, since the complementizer is optional, we will use the label "non-CP structure" to refer to this type of construction.

2.2 Subject control predicates and other properties

As shown in the set of examples in (5), it is possible to have an optional complementizer *ny* 'to'—provided between parentheses—introduced by a subject control predicate (see the configuration in Figure 2). A complementizer *fa* 'that' renders the sequence irretrievably ungrammatical, as shown immediately below.

(6) *Nikasa fa hividy boky i Jeanne.
N- i-kasa fa h- i-vidy boky i Jeanne.
PAST-I-intend COMP FUT-I-buy a.book(s) D.SG Jeanne

A subject control predicate like *mikasa* 'to intend' rules out any postposed sentential object, henceforth a CP, i.e. showing up after a grammatical subject whether

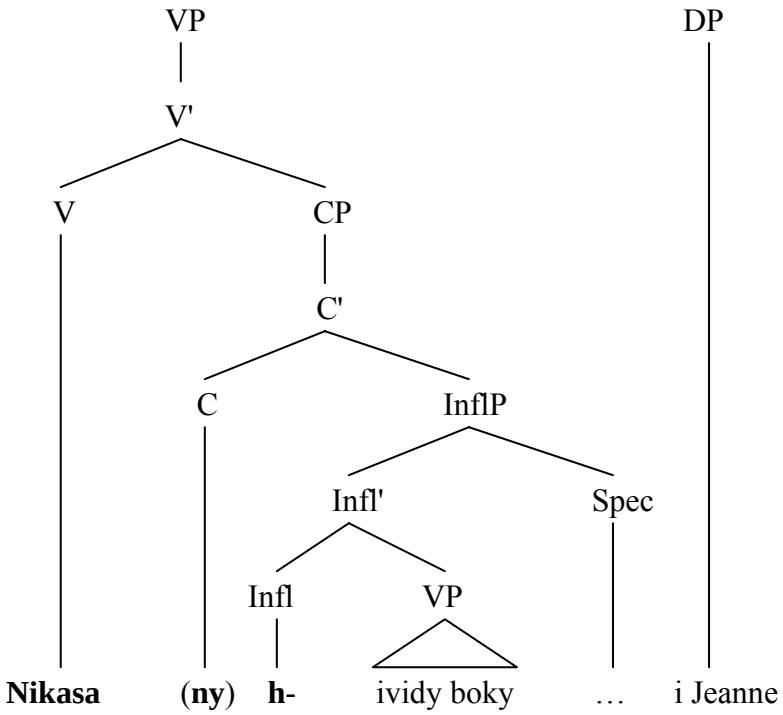


Figure 2. Subject control and subcategorization

the complementizer is *ny* 'to' or *fa* 'that'. Indeed the following sentences are irretrievably ungrammatical. The ungrammatical sequence in (7) shows that a *ny* 'to' clause governed by a subject control predicate like *mikasa* 'to intend' simply cannot be separated from its verb. Adjacency of the two constituents is crucial. In addition, as far as the sentences in (8) are concerned, an inappropriate complementizer, i.e. *fa* 'that', has been wrongly selected. Given the ungrammaticality of all the sequences involved, it does not seem to matter whether the embedded subject is left out as in (8a) or displayed overtly as in (8b), or whether a focus construction is used in the lower clause as illustrated in (8c) above. As will become apparent in relation to example (23) below, Malagasy has two different kinds of complementizer *ny*: one is an optional, unmarked clausal type complementizer *ny* 'to' forcing a subject control interpretation and co-occurring with a root, whereas the other is an obligatory, marked non-clausal type of nominalizing complementizer *ny* 'for-to'—to be described in Section 6.1—which triggers an object control interpretation, necessarily comprises a stem—never a root—and is accompanied by a gerund.

(7) *Nikasa i Jeanne ny hividy boky.
N- i-kasa i Jeanne ny h- i-vidy boky.
PAST-I-intend D.SG Jeanne COMP FUT-I-buy a.book(s)
'Jeanne intended to buy a book/books.'

(8) a. *Nikasa i Jeanne fa hividy boky.
N- i-kasa i Jeanne fa h- i-vidy boky.
PAST-I-intend D.SG Jeanne COMP FUT-I-buy a.book(s)
'Jeanne intended to buy a book/books.'

b. *Nikasa i Jeanne fa hividy boky i Paoly.
N- i-kasa i Jeanne fa h- i-vidy boky i Paoly.
PAST-I-intend D.SG Jeanne COMP FUT-I-buy a.book(s) D.SG Paul
'Jeanne intended for Paul to buy a book/books.'

c. *Nikasa i Jeanne fa i Paoly no hividy boky.[6]
N- i-kasa i Jeanne fa i Paoly no h- i-vidy boky.
PAST-I-intend D.SG Jeanne COMP D.SG Paul FOCUS FUT-I-buy a.book(s)
'Jeanne intended for Paul to buy a book/books.'

3. Object control and adjacency

As will be shown in this section, an object control predicate constituent-selects the tense-marker on the embedded verb that it governs; such a governed verb is necessarily adjacent to the matrix predicate and typically cannot be relegated to a position to the right of the matrix subject; in addition, the only complementizer that can optionally accompany an object control predicate is the complementizer *mba* 'please'.

3.1 Object control predicates and strict subcategorization

An object control predicate like *miangavy* 'to request' constituent-selects the tense-marker on the immediately adjacent, embedded verb. Again the future tense-marker is obligatory.

In (9a), the verb *handeha* 'will go' accompanying *miangavy* 'to request' is in the future tense: the sequence is fully grammatical. By contrast, in (9b) and (9c), the same verb is either in the present tense or in the past tense: both sentences are irretrievably ungrammatical. This difference in grammaticality is due to the fact that an object control verb constituent-selects the tense-marker on the immediately adjacent predicate. Indeed this verb is embedded under the object control predicate. In addition, since the complementizer is optional, we will also use the label "non-CP structure" to refer to this type of construction.

[6] This is exactly the same putative control structure as the one in Potsdam (2004:2).
(i) *Mikasa ny mpianatra [fa izaho no hangalatra ny toaka].
intend the student that I FOCUS FUT-steal the booze
Lit.: 'The student intends that I steal the booze.'

(9) a. Niangavy an'i Jeanne (mba) handeha i Marie.
N- i-angavy an' i Jeanne (mba) h- an-(l>)deha i Marie.
PAST-I-request ACC D.SG Jeanne COMP FUT-AN-go D.SG Marie
'Marie asked Jeanne to go.'

b. *Niangavy an'i Jeanne (mba) mandeha i Marie.
N- i-angavy an' i Jeanne (mba) m- an-(l>)deha i Marie.
PAST-I-request ACC D.SG Jeanne COMP PRES-AN-go D.SG Marie
'Marie asked Jeanne to go.'

c. *Niangavy an'i Jeanne (mba) nandeha i Marie.
N- i-angavy an' i Jeanne (mba) n- an-(l>)deha i Marie.
PAST-I-request ACC D.SG Jeanne COMP PAST-AN-go D.SG Marie
'Marie asked Jeanne to go.'

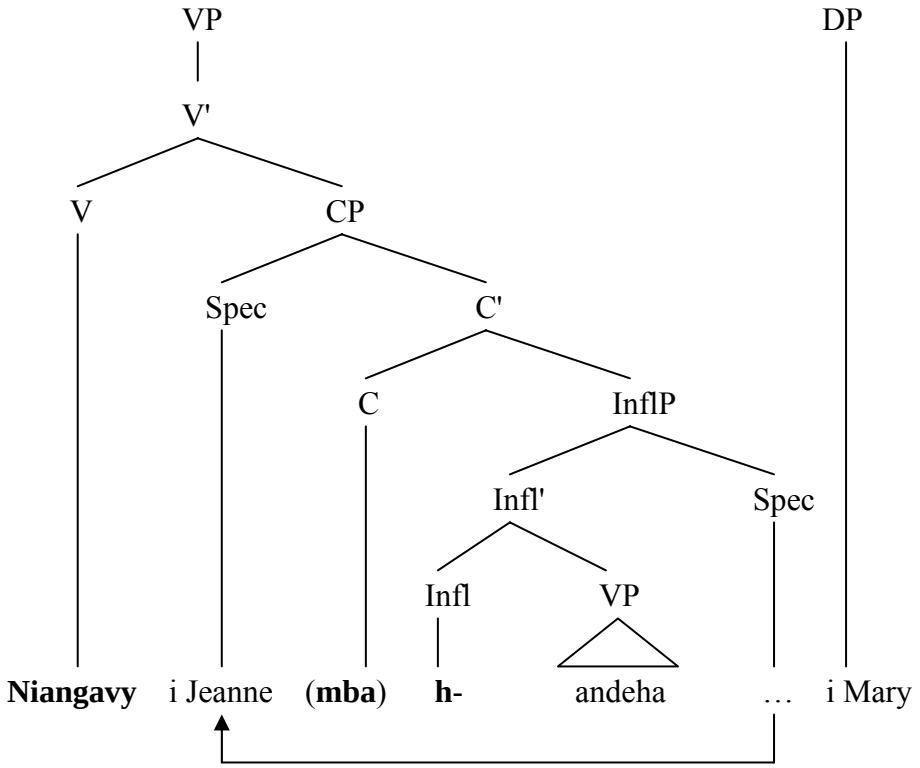


Figure 3: Object control and subcategorization

3.2 Object control predicates and other properties

As illustrated in (9), it is possible to have an optional complementizer *mba* (see Figure 3). However, a complementizer *ny* or a complementizer *fa* under an object control predicate will render the sequence irretrievably ungrammatical, as seen in (10).

(10) a. *Niangavy an'i Jeanne ny handeha i Marie.
N- i-angavy an' i Jeanne ny h- an- (l>)deha i Marie.
PAST-I-request ACC D.SG Jeanne COMP FUT-AN-go D.SG Marie
'Marie asked Jeanne to go.'

b. *Niangavy an'i Jeanne fa handeha i Marie.
N- i-angavy an' i Jeanne fa h- an- (l>)deha i Marie.
PAST-I-request ACC D.SG Jeanne COMP FUT-AN-go D.SG Marie
'Marie asked Jeanne to go.'

In addition, as shown in (9a), there is evidence to show that the subject of the embedded structure is moved from the right edge of the embedded tense inflections projection into the Specifier position of the embedded complementizer (to the left), receiving object case exceptionally from the matrix predicate, as indicated by an arrow in Figure 3 (also consult (24a) and (24b)). Consider the following example, which comprises a small clause, i.e. a non-verbal predicate *mahay*:

(11) Milaza azy ho mahay i Paoly.
M- i-laza azy ho mahay i Paoly.
PRES-I-consider him/her comp intelligent D.SG Paul
'Paul considers himself intelligent.'

The independent pronoun *azy* 'him/her' in the accusative case is bound by the grammatical subject of the matrix verb, i.e. *i Paoly*. Such a situation would never arise if the pronoun *azy* 'him/her' were raised into the matrix clause, as is usually assumed in a raising-to-direct-object framework. A natural solution would be to posit a Specifier position to the embedded complementizer projection, as depicted in Figure 3 for the following sentence. Note that the intransitive verb can obviously be replaced by a transitive one giving rise to a marked SVO order, giving rise to an exhaustive listing interpretation whereby the fronted element refers to an item on a list of topics being talked about.

(12) I Jeanne handeha.
I Jeanne h- an- (l>)deha.
D.SG Jeanne FUT-AN-go
Lit.: 'Jeanne will go.'
English: 'As for Jeanne, she will go.'

4. Verbs of saying and non-relevance of adjacency

As will be seen in this section, a verb of saying does not constituent-select the tense-marker on the accompanying verb that it does not govern; such a non-governed verb does not have to be adjacent to the matrix predicate and typically can be relegated to a position to the right of the matrix subject; furthermore, the prototypical complementizer that accompanies a matrix verb of saying is the complementizer *fa* 'that'.

4.1 Verbs of saying and absence of strict subcategorization

Unlike a control predicate, a verb of saying has the following properties:

(a) it does NOT constituent-select the tense-marker on the accompanying verb;
(b) it allows the complementizer *fa*, but not the complementizer *ny* nor *mba*; and
(c) it typically allows a postposed sentential object (CP), i.e. after the subject.

As can be deduced from the data shown in (13) with the irretrievably ungrammatical (13b), a verb of saying, here *milaza* 'to say', does NOT constituent-select the tense-marker on the accompanying verb: in the grammatical (14a), the relevant verb is in the past tense; in the grammatical (14b), it is in the present tense, whereas in the grammatical (14c) it is in the future tense. This first property of a matrix verb of saying means that the accompanying verb is NOT embedded under it and we are not dealing here with strict subcategorization at all. As example (14d) suggests, the position of the accompanying predicate is not relevant—either apparently adjacent to the matrix verb, as in this specific case, or alternatively located to the immediate right of the grammatical subject, as in (13a). This crucial detail demonstrates that we are not dealing here with subordination or embedding as strictly defined, but rather with adjunction. In addition, since the complementizer is obligatory, we will use the label "CP structure" to refer to constructions like (13a).

(13) a. Nilaza i Paoly fa handeha.
N- i-laza i Paoly fa h- an-(l>)deha.
PAST-I-say D.SG Paul COMP FUT-AN-go.
'Paul said that he would go.'

b. *Nolazain'i Paoly fa handeha.
No- laza- in(a)' i Paoly fa h-an-deha.
PASS.PAST-be.said-SUF.INA.by D.SG Paul COMP FUT-AN-go

(14) a. Nilaza i Paoly fa nandeha tany.
N- i-laza i Paoly fa n- an-(l>)deha t-any.
PAST-I-say D.SG Paul COMP PAST-AN-go PERF-there.
'Paul said that he went there.'

b. Nilaza i Paoly fa mandeha ø-any.
N- i-laza i Paoly fa m- an-(l>)deha ø-any.
PAST-I-say D.SG Paul COMP PRES-AN-go NONPERF-there.
'Paul said that he goes there.'

c. Nilaza (fa) handeha ø-any i Paoly.
N- i-laza (fa) h- an-(l>)deha ø-any i Paoly.
PAST-I-say (COMP) FUT-AN-go NONPERF-there D.SG Paul.
'Paul said that he would go.'

d. Nilaza (fa) nandeha t-any i Paoly.
N- i-laza (fa) n- an-(l>)deha t-any i Paoly.
PAST-I-say (COMP) PAST-AN-go PERF-there D.SG Paul.
'Paul said that he went there.'

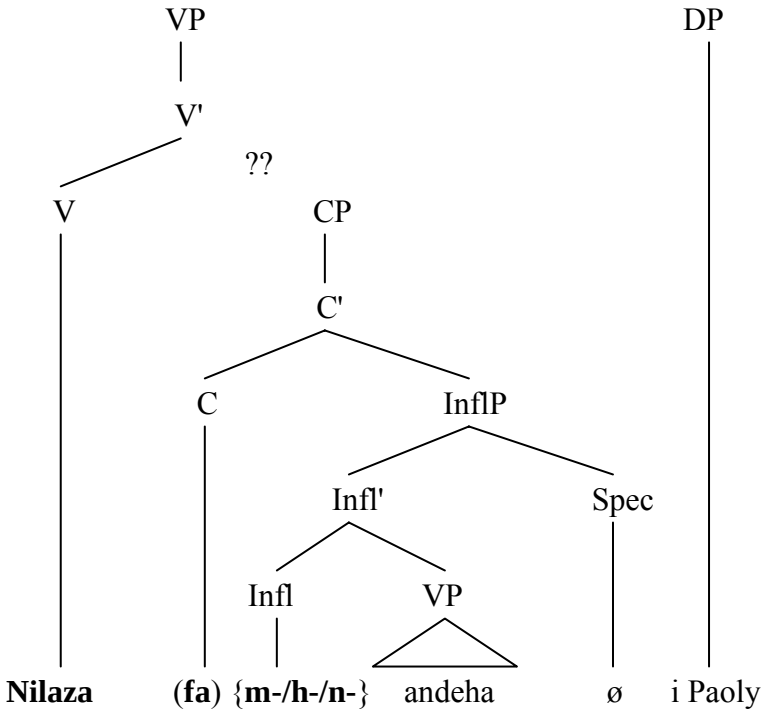


Figure 4. Verb of saying and absence of subcategorization

4.2 Verbs of saying and other properties

As shown in 4.1, a Malagasy verb of saying does not strictly subcategorize for the accompanying structure, which is NOT an embedded/subordinate structure, but rather a mere adjunct (consult Figure 4 where the symbol ?? represents lack of linkage). In addition, it allows the complementizer *fa* 'that', but not the complementizer *ny* 'to, for-to' nor *mba* 'in order to, please'. Replacing the complementizer *fa* 'that' with the complementizer *ny* 'to, for-to' or the complementizer *mba* 'in order to, please' in either (13) or (14d), for instance, will yield irretrievably ungrammatical sequences.

A verb of saying typically allows a postposed sentential object, i.e. appearing after the subject, as shown in (13a): the sentential object *fa handeha* follows the grammatical subject *i Paoly* of the matrix verb of saying *nilaza* 'said'. There seems to be a strong preference for this configuration although (14c), where the sentential object is adjacent to the matrix verb, is also possible.

Last but not least, note that when the sentential object is postposed after the subject, the complementizer *fa* is obligatory, hence the label "CP structure". Thus, if the complementizer *fa* was dropped from (13a), the sequence would become irretrievably ungrammatical. Contrast with non-CP examples cited under footnote 8. On the other hand, if it is not postposed, as shown in (14c), the complementizer is optional.

5. Correlations involving CP and non-CP structures

As will become evident in this section, Malagasy sentences display a range of empty positions, one of which involves the trace of a moved element in an object control predicate, while the other instances suggest an empty slot, which can enter into either an anaphoric or a pronominal binding relationship with a matrix subject depending on the nature of the relevant structure, i.e. a CP or a non-CP sequence.

5.1 Malagasy empty subjects

Malagasy displays a range of empty slots occupying the subject position within a sentence. In (5a), we have an anaphoric empty subject associated with an embedded predicate involving a subject control predicate in a non-CP structure; in (9a), we have an anaphoric trace of a subject moved from the right edge of VP into the Specifier position to the left of the embedded clause under an object control verb, also a non-CP structure; and in (13a), we have a pronominal empty subject associated with a CP structure accompanying a verb of saying. In addition, as will be shown below,

Malagasy also has a subset of verbs like *manandrana* 'to try', which require that the accompanying predicate be an InflP clause, i.e. a structure comprising exactly the same tense-marker as the matrix verb and which has an anaphoric empty subject associated with the accompanying predicate involving a subject control structure. As is the case with a subject control construction, such an empty position is bound by the subject of the matrix predicate; here we have our third type of non-CP structure.

5.2 Distribution of empty and overt subjects

As explained in Randriamasimanana (2002), an overt subject is only required in an unmarked VOS Malagasy sentence when a deictic labeled "agreement", such as *ireto…ireto* 'these…these' or *ity…ity* 'this…this', surrounds the VP, which imposes a plural or a singular interpretation on the grammatical subject. In general, such a deictic can only appear on a matrix clause and not in an embedded or adjoined structure. In the absence of such a deictic, an empty subject slot is the norm, as in (5a) above, where we have an anaphoric empty subject position associated with an embedded predicate under a subject control verb. Note however that the situation is rather different with a so-called "object control" verb: (9a) is repeated below as (15).

(15) Niangavy an'i Jeanne (mba) handeha i Marie.
N- i-angavy an' i Jeanne (mba) h- an-deha --- i Marie.
PAST-I-request ACC D.SG Jeanne COMP FUT-AN-go EMPTY D.SG Marie
'Marie asked Jeanne to go.'

where the symbol "---" represents the slot vacated by the constituent *i Jeanne* which has been shifted from the right edge of the embedded structure into the Specifier position of the lower (optional) CP structure so that it can receive case exceptionally from the verb *miangavy* 'to request'. It is obvious that the clause embedded under *miangavy* cannot accommodate an agreement type of deictic such as those described earlier. As a direct result of this, the lower subject must migrate to a position where it can receive case from the matrix predicate. The relevant position is that of Specifier of CP whose existence was independently justified by structures like (11) above. In addition, note that if the definite phrase *i Jeanne* was replaced by a non-definite constituent, the sequence will then become irretrievably ungrammatical. This crucial detail suggests that this constituent was initially in the position indicated by the symbol "---".

5.3 Distribution of anaphoric and pronominal empty subjects

There seems to be a straightforward correlation between the pronominal nature of empty subject and CP structure adjunction, and the anaphoric nature of empty subject and non-CP structure: whereas a CP structure necessarily comprises a complementizer, a non-CP structure does not have to have a complementizer. This means that we have two slightly different subcases: either an embedded CP contains an optional complementizer, or alternatively an adjoined InflP sequence is without any complementizer at all. In cases such as (13) repeated as (16) below, we have a typical pronominal empty subject inside a CP structure adjoined to the subject of a verb of saying clause.

(16) Nilaza i Paoly fa handeha.
N- i-laza i Paoly fa h- an-(l>)deha --- .
PAST-I-say D.SG Paul COMP FUT-AN-go EMPTY
'Paul said that he would go.'

where prototypically the adjoined CP structure shows up immediately to the right of the grammatical subject of the matrix clause, where the complementizer *fa* 'that' is obligatory and where the symbol "---" represents an empty pronominal subject slot whose antecedent precedes it immediately. Note that in this case we do not have embedding as the verb of saying does not strictly subcategorize for the tense showing up on the accompanying verb, as already shown in section 4.1. The case of a CP structure illustrated in (16) contrasts with that of a non-CP structure involving an empty anaphoric subject associated with a predicate embedded under a subject control predicate, as seen in (1a), repeated below as (17).

(17) Nikasa (ny) hividy boky i Jeanne.
N- i-kasa (ny) h- i-vidy boky --- i Jeanne.
PAST-I-say COMP FUT-I-buy a.book(s) EMPTY D.SG Jeanne
'Jeanne intended to buy a book/books.'

where prototypically the non-CP structure is embedded under the subject control predicate *mikasa* 'to intend', adjacent to the matrix verb, and where the symbol "---" represents an anaphoric empty slot bound by the matrix subject. Crucially the complementizer *ny* is optional, hence the label "non-CP".

5.4 InflP-adjunct structure and anaphoric empty subject

There also seems to be a rather straightforward correlation between anaphoric empty subject and adjoined InflP-structure adjacent to the matrix verb. Malagasy has verbs such as *manandrana* 'to try' or *mianatra* 'to learn', which require an adjoined InflP-structure with exactly the same tense-marker as the matrix verb and where the accompanying predicate is always and necessarily bound by the subject of the matrix verb.

(18) a. Mianatra miteny anglisy i Jeanne.
M- i-anatra m- i-teny anglisy --- i Jeanne.
PRES-I-study PRES-I-speak English EMPTY D.SG Jeanne
'Jeanne is learning how to speak English.'

b. Nianatra niteny anglisy i Jeanne.
N- i-anatra n- i- teny anglisy --- i Jeanne.
PAST-I-study PAST-I-speak English EMPTY D.SG Jeanne
'Jeanne was learning how to speak English.'

c. Hianatra hiteny anglisy i Jeanne.
H- i-anatra h- i-teny anglisy --- i Jeanne.
FUT-I-study FUT-I-speak English EMPTY D.SG Jeanne
'Jeanne will be learning how to speak English.'

where in each case the matrix verb *mianatra* 'to study' and the adjoined verb *miteny* 'to speak' have exactly the tense-marker; in addition, the symbol "---" indicates the position of an empty subject slot, which is always coreferential with the subject of the matrix clause. As the adjoined structure cannot accommodate a CP structure, but only an InflP-clause and since it is never possible to adjoin the InflP-clause to the immediate right of the overt subject, this empty slot is deemed to be anaphoric in nature as it is necessarily bound by the matrix subject. Given that a complementizer is impossible on the adjoined structure, we adopt the label "non-CP" structure for this type of sequence, as suggested in Section 5.3 above.

5.5 Subject control constraint and relevant environment

From what is shown in (5a), it can be deduced that a structure embedded under a subject control predicate like *mikasa* 'to intend' always has the same subject as the matrix clause. In the case of the so-called "object control" verb, the existence of a structure like (15) allows the object of the relevant embedded predicate to be shifted

into the Specifier of a CP position. As far as a verb of saying is concerned, the nature of the empty subject position inside the conjoined structure depends upon whether we are dealing with an InflP version of non-CP structure adjunction, as in (14c) and (14d), or with the original CP structure version, as in (13a), (14a) and (14b): In the first instance, we have an anaphor bound by the matrix subject; in the second, we have a pronominal whose antecedent immediately precedes the target pronoun. In addition, with a CP structure adjunction, as illustrated in (13a), (14a) and (14b), which typically shows up to the immediate right of the grammatical subject, the predicate inside the adjoined structure can take an overt subject different from that of the matrix clause; in such a case, there has to be a relatively important pause just before the complementizer *fa* 'that'. Thus, instead of the sequence (13a), we can also have the following sequences comprising the obligatory pause as previously described:

(19) a. Nilaza i Paoly fa handeha i Jeanne.
N- i-laza i Paoly fa h- an-(l>)deha i Jeanne.
PAST-I-say D.SG Paul COMP FUT-AN-go D.SG Jeanne.
'Paul said that Jeanne would go.'

b. Nilaza i Paoly fa nandeha i Jeanne.
N- i-laza i Paoly fa n- an-(l>)deha i Jeanne.
PAST-I-say D.SG Paul COMP PAST-AN-go D.SG Jeanne.
'Paul said that Jeanne went.'

c. Nilaza i Paoly fa mandeha i Jeanne.
N- i-laza i Paoly fa m- an-(l>)deha i Jeanne.
PAST-I-say D.SG Paul COMP PRES-AN-go D.SG Jeanne.
'Paul said that Jeanne can walk.'

where the tense-marker inside the conjoined CP structure is completely free; i.e. it can be any tense as the matrix verb of saying *milaza* 'to say' does not constituent-select any tense at all inside the non-adjacent accompanying clause, and where the complementizer *fa* 'that' is obligatory. It thus appears that even in the case of a CP structure adjunct as shown in (13a) repeated below as (20a), the absence of an overt subject is typically interpreted to mean 'the same subject' as the matrix verb of saying, given the availability of an appropriate antecedent and the absence of a pause in front of the complementizer *fa*. In the context of (20a), suitable means that the relevant antecedent must be a grammatical subject just like the target position; otherwise, as seen in (20b) an overt pronominal form would be mandatory in the target subject position inside the conjoined CP structure if the antecedent was not a subject, i.e. in this case a genitive.

(20) a. Nilaza i Paoly fa handeha.
N- i-laza i Paoly fa h- an-(l>)deha --- .
PAST-I-say D.SG Paul COMP FUT-AN-go EMPTY
'Paul said that he would go.'

b. Nolazain'i Paoly fa handeha izy.
No- laza- in(a) i Paoly fa h- an-deha izy.
PASS.PAST-be.said-by D.SG Paul COMP FUT-AN-go he
'(It) was said by Paul that he will go.'

The possibility of an overt pronominal subject form in (20b) means that a pronoun is possible in a CP adjunct, i.e. in a structure postposed after the subject and with an obligatory[7] complementizer—typically *fa* 'that'. Again, as was the case with the sentences in (19), there must be a pause before the complementizer *fa* in (20b), whereas in (20a), there is no pause at all, suggesting that in the latter we have one single syntactic unit as explicitly indicated by the intonational pattern.

5.6 Non-CP structure and pronouns

Given the complementarity described above suggesting that a CP structure like (13) may be an appropriate environment for a co-referential pronominal empty subject, but that it is absolutely never possible for a non-CP structure to contain an overt co-referential pronoun, we obtain the following grammaticality pattern.

The sequences shown in (21a) and (21b) involve non-CP structures and a matrix subject control predicate, i.e. *kasaina* 'is being intended'. Only (21b) is grammatical, whereas (21a) is irretrievably ungrammatical. The first is undoubtedly ungrammatical because of the presence on the embedded predicate of a pronoun, i.e. *ny* 'by her' referring to Rasoa, a genitive in *hosasany* 'will be washed by her'. By contrast, such a coreferential pronoun is absent from *hosasana* 'will be washed', the accompanying verb in the sequence in (21b) is fully grammatical. The ungrammaticality of (21a) as opposed to the grammaticality of (21b) and (22) is directly linked to the distribution of anaphors and pronominals: in (21a), an illicit target genitive pronoun *-ny* 'by her' shows up inside a non-CP structure. By contrast, in (21b) and (22) the subject of the

[7] As noted earlier, *fa* is a complementizer, but in general, given the data on Malagasy gerunds, it appears that a complementizer can also be a determiner under certain circumstances—as described in Section 6.1. This is certainly the case with the complementizer or determiner *ny*. Now it is well-known that in this language a subject must be definite and therefore comprises a determiner. Given the sequences in (24a) and (24b) in conjunction with (21b) and if we assume an "escape hatch" through which a moved or "promoted" constituent transits in order to account for sentences like (21b), where the initial object of the lower predicate appears to have migrated into the matrix clause, then we have a plausible explanation as to why a complementizer like *fa* is obligatory in structures like (13a) or those in (20).

matrix clause and that of the embedded structure—also a non-CP type—are coreferential, giving rise to a double passive construction where two passive verbs share the same subject.

(21) a. *Kasain-dRasoa ho-sasa-**ny** ny zazakely[8]
ø-be.intended-by-EP.D-Rasoa PASS.FUT-be.washed-by.her the little.child
'It is intended by Rasoa that the little child will be washed by her.'

b. Kasain-dRasoa ho-sasa-(a)**na** ny zazakely
ø-be.intended-by-EP.D-Rasoa PASS.FUT-be.washed-by the little.child
'The little child is intended by Rasoa --- will be washed.'

(22) Raharaha inona no kasainao hatao …?
Raharaha inona no ø- kasa- i(na)/nao h- atao
occupation what FOCUS ZERO-be.intended-by.you FUT-be.done
Lit.: 'What occupation is intended by you --- will be done?'[9]
(Rajemisa-Raolison 1995:481, e.g. 22).

6. Adjacency, gerunds and adjunctions

Previous sections have shown that there exists in Malagasy a very important difference between a control structure, which necessarily involves adjacency, and a verb of saying, for which adjacency is not relevant at all. In this section, it will be seen that adjacency by itself is not sufficient to characterize a sequence; the notion of embedding as made transparent through morphology, for example, the constituent-selection of an accompanying tense-marker by a matrix predicate or the presence of a stem form as opposed to a root inside the relevant structure, is absolutely crucial. Thus in a gerund, which presumably involves embedding, the presence of a stem inside the sequence is mandatory; by contrast, with so-called "aspectual verbs", which involve adjunction, this is definitely not the case. At any rate, in Malagasy the hallmark of an adjunction is the presence both on a matrix verb and on the accompanying predicate of exactly the same tense-marker forms.

[8] This sequence is similar to the one found in Law (1995), (his (8) = (i) below) as well as (ii) proposed in Polinsky and Potsdam (2003):
(i) *Kasain-dRasoa ho-sasa-**ko** ny zaza
intend.PASS.by-Raso FUT.wash.PASS.by-me the child
'It is intended by Rasoa that the child will be washed by me.'
(ii) *Tian-dRasoa hilaoza-**ny** i Tana
want.PASS-Rasoa leave.PASS-3SG Antananarivo
'Rasoa wants to leave Antananarivo.'

[9] This is one instance of a so-called "double passive".

6.1 Malagasy gerunds

This sixth section addresses the notion of gerunds in Malagasy, which is crucial to the issues being addressed in this paper. Specifically in a gerund, there is no surface grammatical subject slot available inside the relevant structure. Basically in a gerund, we must satisfy the following morphological template: "tense-marker + primary verbal prefix *an*-or *i*- + stem + passive suffix -*ana*".

In Malagasy, there exist two different types of complementizer *ny*: first, an unmarked optional, subject control complementizer *ny* 'to' co-occurring with the root (and NOT the stem) of the relevant verb with presumably an empty subject slot within the sequence, as described in previous sections in relation to the subject control construction; now the second, marked, non-clausal and obligatory nominalizing complementizer *ny* 'for-to' exists in this language, which requires a gerund using circumstantial passive—as described and illustrated in Section 1.3. This means that the presence of a stem is required inside the verbal sequence and that we have a gerund with no grammatical subject slot available, but with an oblique agent attached to the passive suffix -*ana*. Those two structures can be illustrated thus:

(23) Nanantena (ny) handeha i Paoly.
N- an-antena (ny) h- an-deha i Paoly.
PAST-AN-expect COMP FUT-AN-go D.SG Paul
'Paul expects to go.'

(24) a. Nanantena an'i Jeanne handeha i Paoly.
N- an-antena an' i Jeanne h- an-deha i Paoly.
PAST-AN-expect ACC D.SG Jeanne FUT-AN-go D.SG Paul
'Paul expected Jeanne to go.'

b. Nanantena ny handehanan'i Jeanne i Paoly.
N- an-antena ny h- an-dehan- an(a)' i Jeanne i Paoly.
PAST-AN-expect COMP FUT-AN-be.gone-by AGENT D.SG Paul
'Paul expected that Jeanne would go.'

c. Nanantena ny handehanany i Paoly.
N- an-antena ny h- an-dehan- a(na)/ny i Paoly.
PAST-AN-expect COMP FUT-AN-be.gone-by/him D.SG Paul
'Paul expected that someone (s.o. other than Paul) would go.'

(25) Nanery an'i Jeanne handeha i Paoly.
N- an-(t)ery an' i Jeanne h- an-deha i Paoly.
PAST-AN-force ACC D.SG Jeanne FUT-AN-go D.SG Paul
'Paul forced Jeanne to go.'

In (23) with *manantena* 'to expect', we have an unmarked, optional complementizer *ny* 'to', which signals that this is a subject control sequence. In (24a) we presumably have an object control type predicate with the lower verb in the active voice, as clearly shown by the presence of the root on the relevant verb; in (24b), on the other hand, we have the marked and obligatory nominalizing complementizer *ny* 'for-to', and the lower verb must be in the circumstantial passive voice: indeed, the first sequence only comprises the following elements, i.e. "tense-marker + primary verbal prefix *an-* + root.go (*leha*)"; whereas the second structure has the obligatory nominalizing complementizer *ny* along with "tense-marker + primary verbal prefix *an-* + stem.go (*dehan*) + passive suffix *-ana*". Crucially the structure *ny handehan'i Jeanne* 'the leaving of Jeanne' is a gerund with its initial grammatical subject showing up as an oblique agent attached to the suffix *-ana* of the passive verb and it serves as the object of the matrix transitive verb *manantena* 'to expect'. What would have appeared as a lower subject surfaces as an oblique-agent in the form of the pronoun clitic *-ny* 'by.him/her' substituting partially to the passive suffix *-ana*, as shown in (24c). Finally, in (25), we have a typical object control predicate, which is parallel to what we have in (24a).

6.2 Gerund and persuasive causative

It is worth mentioning that indeed a gerund is also involved in the so-called "persuasive directive" causative proposed in Randriamasimanana (1986:3, e.g. 1a):

(26) Nanao izay handehanan'i Jeanne i Paoly.

N-	an-(t)ao	izay	h-	an-dehan-an(a)'	i	Jeanne	i	Paoly.
PAST-AN-do		COMP	FUT-AN-be.gone-by		D.SG	Jeanne	D.SG	Paul

'Paul did so that Jeanne would go.'

The verb *manao* 'to do' is a transitive verb, and its object *izay handehanan(a)* is a gerund. As was the case with (24b) and (24c), the nominalizing complementizer *ny* is obligatory and simply cannot be omitted. Furthermore, the complementizer *izay* 'so that' is a determiner accompanying a derived nominal. This suggests some kind of nouniness squish where the obligatory nominalizing complementizer *izay* 'so that' occupies one end of the spectrum and where the optional complementizer *ny* 'to' represents the other end, with the obligatory nominalizing complementizer *ny* 'for-to' occupying the middle ground.

7. Malagasy complex predicates and coordination

In Section 7, we deal with Malagasy complex predicates involving clausal coordination—as opposed to embedding—in so far as this relates to what is labeled "InflP adjunct" in this paper. Basically we have two verbs V1 and V2 conjoined with each other but via no overt complementizer at all; i.e. complementizer *zero* is labeled thus ø, and the structure shares the same subject as the first verb, where typically V1 is either a Malagasy verb describing the inception, termination or the unfolding of a given durative process or a motion verb, especially one which requires a comitative type of oblique. The first subcategory of verbs comprises predicates such as the following: *manomboka* 'to begin' as shown in (27) below, *mitsahatra* 'to finish', *mijanona* 'to stop', *milofo* 'to persist in', *manandrana* 'to try', *mianatra* 'to learn how to'; the second comprises motion verbs such as *mandeha* 'to go' as illustrated in (28) below, *midina* 'to go downstairs', *mitsoaka* 'to flee', *mitsambikina* 'to jump' as well as *miaraka* 'to go with', which as illustrated in (29) below poses an intriguing agreement question.

(27) a. Manomboka mianatra i Paoly.
M- an-(t)omboka ø m- i-anatra i Paoly.
PRES-AN-start COMP PRES-I-study D.SG Paul
'Paul starts studying.'

b. Nanomboka nianatra i Paoly.
N- an-(t)omboka ø n- i-anatra i Paoly.
PAST-AN-start COMP PAST-I-study D.SG Paul
'Paul started studying.'

c. Hanomboka hianatra i Paoly.
H- an-(t)omboka ø h- i-anatra i Paoly.
FUT-AN-start COMP FUT-I-study D.SG Paul
'Paul will start studying.'

(28) a. Mandeha mianatra i Paoly.
M- an-(l>)deha ø m- i-anatra i Paoly.
PRES-AN-go COMP PRES-I-study D.SG Paul
'Paul goes and studies.'

b. Nandeha nianatra i Paoly.
N- an-(l>)deha ø n- i-anatra i Paoly.
PAST-AN-go COMP PAST-I-go D.SG Paul
'Paul went and studied.'

c. Handeha hianatra i Paoly.
H- an-(l>)deha ø h- i-anatra i Paoly.
FUT-AN-go COMP FUT-I-study D.SG Paul
'Paul will go and will study.'

(29) a. Miara-mianatra i Jeanne sy i Paoly.
M- i-ara(ka) m- i-anatra i Jeanne sy i Paoly.
PRES-I-accompany PRES-I-study D.SG Jeanne and D.SG Paul
'Jeanne and Paul work together.'

b. Niara-nianatra i Jeanne sy i Paoly.
N- i- ara(ka) n- i-anatra i Jeanne sy i Paoly.
PAST-I-accompany PAST-I-study D.SG Jeanne and D.SG Paul
'Jeanne and Paul worked together.'

c. Hiara-hianatra i Jeanne sy i Paoly.
H- i-ara(ka) h- i-anatra i Jeanne sy i Paoly.
FUT-I-accompany FUT-I-study D.SG Jeanne and D.SG Paul
'Jeanne and Paul will work together.'

d. *Niara-nianatra i Jeanne.
N- i-ara(ka) n- i-anatra i Jeanne.
PAST-I-accompany PAST-I-study D.SG Jeanne
'Jeanne and ... worked together.'

e. *Niara-nianatra ry Jeanne.
N- i-ara(ka) n- i-anatra ry Jeanne.
PAST-I-accompany PAST-I-study D.PL Jeanne
'Jeanne and associates worked together.'

In (27) and (28), the first verb is kept separate from the second one *mianatra* 'to study', and presumably we have a zero complementizer between the two. By contrast, in (29) the first verb V1 and the second verb V2 come together as the *ka* ending of the verb *miaraka* 'to go with' drops in the process of compounding. In addition, apparently a complex predicate comprising *miaraka* 'to go with' requires a plural subject DP involving coordination, as suggested by the ungrammaticality of (29d) as well as (29e): in (29d) the subject has the singular determiner *i* preceding the proper name, whereas in (29e) the subject has the plural determiner *ry* accompanying *Jeanne* and means something like 'Jeanne and associates'; yet this does not satisfy the plural requirement of the complex verbal predicate and in fact, only a coordinate subject will do, as illustrated in (29c). In (27) the verb *manomboka* 'to start' is transitive so that the structure represented by *mianatra* 'study/studies' could well be a gerund. However, this cannot be the case as the morphology of the relevant verb clearly shows that as

previously explained in Section 5 above, we have the unmarked option of a clausal complementizer *ny* 'to' accompanied by a root and not a stem. In addition, in both (28) and (29) we have intransitive verbs, which in principle do not subcategorize for a direct object: *Mandeha* 'to go' in the first and *miaraka* 'to go with' in the second. These two verbs are apparently prototypical of the majority of predicates involved in this kind of complex predicate apparently based on simultaneous coordination.

8. Conclusions

In the first instance, it appears that Malagasy control structures and verbs of saying show very different properties. A control verb constituent-selects the future tense on the embedded predicate, which is necessarily adjacent to the matrix verb: in the case of a subject control verb as in (5a), an optional complementizer *ny* 'to' is possible on the embedded structure, and the accompanying empty subject position is an anaphor bound by the matrix clause subject; in the case of an object control verb as in (9a), an optional complementizer *mba* 'in order to, please' is possible on the embedded structure, and the accompanying empty subject position is an anaphoric trace left by the initial embedded subject shifted from the right edge of the VP into the Specifier of complementizer position; such a move is made necessary for the purpose of case—suggested by sentences such as (24b) involving predicates like *manantena* 'to expect'.

As far as verbs of saying are concerned, as seen in (13a), the matrix verb does not constituent-select the tense on the accompanying predicate; indeed a verb of saying only requires an adjunct, typically a CP type adjunct structure where the presence of the complementizer *fa* 'that' is obligatory. This contrasts with the situation involving control structures, which require a non-CP type of structure not comprising a complementizer to be embedded under a control predicate, i.e. adjacent to the matrix verb. Given the distinction between CP adjuncts and non-CP adjuncts, we are now able to account for the distribution of anaphoric and pronominal empty subjects: an anaphor is likely to show up in a structure adjacent to the matrix VP, whether we have an embedding—in the case of control predicates like *mikasa* 'to intend' as in (5a) or *miangavy* 'to request' as in (9a)—or an InflP adjunct—in the case of verbs like *mianatra* 'to learn' as in (18); a pronominal empty subject on the other hand is very likely if we have a CP adjunct, which is part of a syntactic unit comprising the complementizer *fa* and not involving a pause in front of the complementizer *fa*, as shown in (16). In addition, when a big pause is observed in front of the complementizer *fa* in a CP type adjunct, as illustrated in (19), it is possible not only to have a different tense on the conjoined predicate, it is also possible to have a

grammatical subject different from the one in the matrix clause. The pause explicitly indicates that we have two different syntactic units and that one structure precedes the other, thus giving rise to a precedence relationship.

In the second instance and pursuing our exploration of Malagasy gerunds, it appears that in structures involving gerunds, as illustrated in (24b) and (24c), two distinct events are encoded in two different verbs and the second V2 is subordinated to V1 as suggested by the embedded future tense-marker and as a result Event 2 is subsequent to Event 1; in the other cases, as seen in (27), (28) and (29) none of which has to do with gerunds, instead of having subordination, we now apparently have simple coordination between distinct aspects of the same event described by two different verbs V1 and V2 in our coordination-based complex verbal predicate, as we now only have one unique event described by two verbs, the first of which encodes aspectual viewpoint, i.e. the inception, unfolding or termination of some durative process of some unique event described by the second verb V2. And of course, we know that (24b) and (24c) involve gerunds as both embedded structures clearly display the required morphological template containing the obligatory stem and neither include a grammatical subject; on the other hand, (27), (28) and (29) show clausal constructions with both a root as well as an empty subject slot inside each sequence.

Last but not least, it has also emerged that as far as Malagasy control structures apparently based on embedding are concerned, there exist different types of complementizers according to the degree of nouniness of the structure under consideration and that morphological templates seem to play a crucial role in this regard: from the optional clausal complementizer *ny* ‘to’ co-occurring with a root and involved in subject control configuration structures to the obligatory, nominalizing complementizer *ny* ‘for-to’ co-occurring with a stem and relevant for object control configuration sequences all the way to the obligatory complementizer *izay* ‘so that’, which essentially is a determiner accompanying a gerund. As for those predicates showing simultaneous coordination, this paper has probably only scratched the surface as much work remains to be done.

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Centre for Linguistics and Philology
University of Oxford
Oxford, UNITED KINGDOM
Charles Randriamasimanana: randriamasi@googlemail.com

馬拉加西語的控制結構

Charles Randriamasimanana
University of Oxford

本文旨在描述馬拉加西語的控制結構，並與「說」動詞的行為表現作對比。本研究指出，一個控制謂語會成分選擇(constituent-select)所帶的包孕句的時態標記，並允許一個非必須的標句詞 *ny* 的出現，而且典型地排除出現於主語之後、加接於 CP 的後置賓語子句。另一方面，「說」動詞並不會成分選擇共存結構的時態標記，它允許標句詞 *fa*、而絕非 *ny* 與 *mba* 的出現，並且允許帶有強制性標句詞的後置 CP 加接子句。本文也將闡述區分論元與附加子句的重要性，因為這樣的區別有助於解釋動詞的次類劃分，例如 *mianatra* 的「學習」類動詞並非選擇一個包孕子句，而是 InflP 的附加結構。

關鍵詞：控制、「說」動詞、鄰近、論元、附加語、時態