

Proceedings of AFLA 7

The Seventh Meeting of the Austronesian Formal
Linguistics Association

Edited by
Marian Klamer

Vrije Universiteit Amsterdam
Department of Linguistics
2000

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Held at the Vrije Universiteit Amsterdam
May 11-13, 2000-07-06

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Preface

This volume consists of papers presented at the seventh meeting of AFLA (Austronesian Formal Linguistics Association), held at the Vrije Universiteit on May 11-13, 2000.

For the first time in the history of AFLA, this meeting was held outside the North-American continent, and contained contributions by speakers from eleven different countries: New Zealand, Australia, Indonesia, Brunei Darussalam, Taiwan, the USA including Hawaii, Canada, the UK, France, Germany, and The Netherlands.

Apart from the languages that are traditionally well-represented at Austronesian conferences, we were happy to see that the program also contained work on relatively small or lesser described languages, such as the minority languages of Taiwan, North-West Borneo, Eastern Indonesia, Papua and Oceania.

Special themes of this conference were Iconicity and Argument marking. The papers in this volume show that the program covered a broad range of subdisciplines -- from discourse grammar, phonology, morphology, syntax, to semantics -- and that the authors are working within various theoretical frameworks. But despite the obvious differences in expertise, interest and background, the atmosphere on the conference was typically AFLA: lively and constructive, with an average rate of attendance of about 80%. The papers in this volume deserve the same rate of attention.

This meeting has again furthered the unwritten mandate of AFLA to encourage the formal study of Austronesian languages, especially work by speaker linguists and junior scholars. Six scholars presented analyses of their native language, and more than half of the 45 participants subscribed as 'student'. This suggests that the future of Austronesian linguistics looks very bright indeed.

The eight edition of Afla will be held in the spring of 2001 at the Massachusetts Institute of Technology (MIT) in Boston, USA. The principal organiser will be Ileana Paul.

Marian Klamer, Vrije Universiteit Amsterdam

Proceedings of previous AFLA meetings:

A Selection of the papers of AFLA 2, in 1995 is published as:
Paul, Ileana, Vivianne Phillips, and Lisa Travis (eds.). 2000. *Formal Issues in Austronesian Linguistics*. Dordrecht, Kluwer.

The proceedings of AFLA 3 and AFLA 4 in 1996/1997 are published as:
Pearson, Mathew (ed.). 1998. *Recent papers in Austronesian Linguistics*. UCLA Working Papers in Linguistics 21.

The proceedings of AFLA 6 in 1999 are published as:
Smallwood, Carolyn and Catherine Kitto (eds.). 2000. *Proceedings of AFLA VI*. Toronto Working Papers in Linguistics.

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Malagasy, Binary Branching and Null Subjects

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Introduction

In this paper, it will be shown that the interaction between Kayne's Binary Branching [as in Kayne (1981) and implemented for Malagasy in Randriamasimanana (1999c)] and the (nominal vs non-nominal) nature of the element that can show up under Infl(ections for tense/aspect) [as outlined in Randriamasimanana (1997)] will determine whether a **null element is allowable** —iff Infl does not comprise a nominal element-- or **not allowable** —iff Infl comprises a nominal element-- in the external subject position.

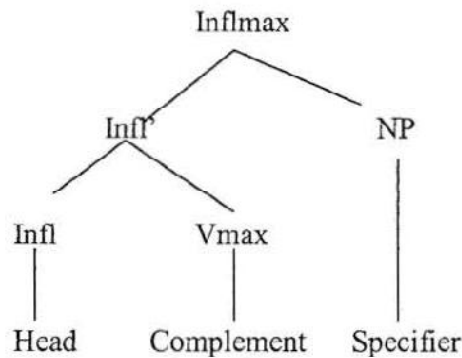
The above account of the distribution of null subjects in Malagasy has several consequences and puts to the fore the crucial importance of the Specifier-Head relationship in the grammar of this language. The major purpose of this paper is four-fold:

- (i) to outline the specific subsystem in which the tense and aspect system of Malagasy interacts with both Binary Branching and the minimalist type of phrase structure proposed in Koizumi (1995) and shown to be relevant for Malagasy in Randriamasimanana (1999a) to yield the basic/building block structures found in this Malayo-Polynesian language;
- (ii) to show specifically how more complex constructions involving for instance, motion verbs can be said to derive from 'mergers' of pre-existing, actual, surface binary structures of Malagasy, taking into account the crucial distinction between arguments and adjuncts established in Randriamasimanana (1999b) and
- (iii) where the process of incorporation, which is triggered by the positive value for the verbal atomic feature [+/- CONTROL] associated with the higher verb plays a crucial role in the formation of such complex structures in Malagasy, as outlined in Randriamasimanana (1998) and discussed in some depth in Randriamasimanana (1986: 29-74).
- (iv) As many of the issues raised above are illustrated in many of the examples found in Keenan (1999), some of this author's Malagasy sentences will be used to show precisely how Binary Branching applies to this language, forcing a Small Clause analysis of some of the complex Malagasy illustrations.

This paper is organised as follows: In Part I, some justification for a Binary Branching analysis of Malagasy sentences will be proposed, based on a Small Clause analysis of predicates involving lexical causative verbs like 'kill' (section A), motion verbs (section B) as well as di-

transitive verbs (section C). Part II will initially distinguish between discourse-based null subject phenomena and linguistic utterance-based null subject phenomena before looking into the nature and function of Malagasy AGR(eement). Part III will subsequently propose an account of the distribution of linguistic utterance-based null subject phenomena in terms of the nominal or non-nominal nature of the Inflections for tense and aspect outlining the crucial importance of the Spec-Head relationship.

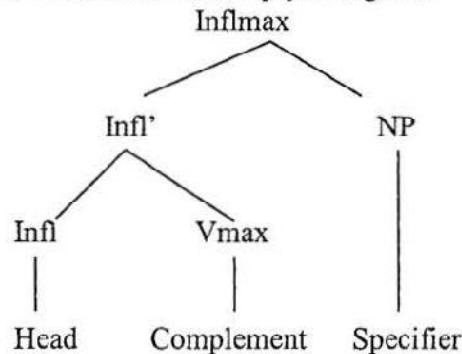
As a starting point, we will assume the following type of tree diagram reproduced from Randriamasimanana (1998: 304), where a distinction is made on Figure 1 between a lexical item projection like V as opposed to a functional head projection like Infl(ections) for tense/aspect. In addition, Figure 2 gives a summary of the distribution of Empty Categories of type 2 (see sections D, F, J and K below for relevant details) in Malagasy.



Where head = lexical = { V, P, N, A }; head = functional = { tense, aspect, agreement }; NP = DP or bare noun

Figure 1: X-Bar Theory and Tree Geometry

Summary of the Distribution of Empty Categories



- (i) AGR/Nom.Tense.....Overt NP
- (ii) [- Finite].....empty

Randriamasimanana (1998: 304)

Nom(inal) = AGR, tense-markers like *no* (past) and *ho* (future).

Not nominal = tense-markers like *n-* (past) and *h-* (future).

Part I: Malagasy and Binary Branching

Section A: Lexical causative verbs.

In order to understand the necessity for a Binary Branching type of analysis à la Kayne (1981) for Malagasy, we need to look at lexical causative verbs like 'kill' in utterances of the following kind:

- (1) N-amono tsy n-aha-faty i Paoly.
 Past-kill not past-cause-dead art. Paul
 Lit: 'Paul killed but did not cause (someone) to die.'
 i.e. English: 'Paul tried to kill (someone), but did not manage to.'

Randriamasimanana (1999.a: 513)

The continuation 'but did not cause (someone) to die' is perfectly grammatical and acceptable in Malagasy since there is absolutely no contradiction involved in the entire sequence shown in (1). The reason for this is that the first verb *n-amono* 'kill' is derived from a combination of two different predicates, i.e. a higher verb *anao* 'do' compressed into *an* and a lower predicate *vono* 'kill'. This lower predicate can be part of a Small Clause made up of a root *vono* and an empty subject; whereas the higher verb *an* will take a tense-marker, in this case the past tense-marker *n*. That the lower predicate can often be part of a Small Clause with an empty subject can be illustrated with the following utterance originating from a recent Malagasy newspaper:

- (2) Tsy mbola teraka hono -!
 Not yet born be-said Empty subject Nonverbal
 predicate
 "X is said to be not yet born!"

Randriamasimanana (1998)

Where *teraka* 'be born' is a root serving as a predicate in a so-called nonverbal construction, hence the label Small Clause. Such a distinction between so-called nonverbal constructions and verbal constructions was established as far back as Rajaona (1972) for Malagasy. Essentially the distinction hinges on the fact that Malagasy verbal predicates take a tense-marker, whereas nonverbal predicates can only accommodate aspectual markers to the exclusion of tense-markers.

As far as the second part of the utterance shown in (1) is concerned, the second predicate is a combination of the higher causative verb *aha* 'cause' and the root predicate *faty* 'dead'. This causative predicate carries an entailment of whatever is asserted in the lower Small Clause, which can be represented thus:

- (3) Faty -.
 'dead' Empty subject
 Nonverbal predicate

Thus the higher verbs used in (1) describe two different situations in Malagasy: While the higher *anao* for the first verb compressed into *an* refers to the inception of some activity described by the verb, the higher verb *aha* for the second verb refers to the completion of the activity being described. In both instances, the lower predicate is a root word which can be part of a Small Clause, as defined above with reference to Rajaona (1972).

Section B: Motion verbs.

An analysis of motion verbs in Malagasy will also require utilisation of the notion Small Clause along with consideration of verbal atomic features such as CONTROL inherent in the relevant higher verb. This essentially means that all motion verbs in this language will have to be analysed in terms of a higher and a lower verb along lines sketched above for lexical causatives like 'kill'. Thus

(4) N-an-deha t-any Antsirabe i Paoly
 past-prf-go perf-to Antsirabe art Paul
 [+ CONTROL] Argument
 'Paul went to Antsirabe.'

(5) N-an-deha i Paoly
 past-prf-go art Paul
 'Paul went'

(6) T-any Antsirabe i Paoly
 perf-to Antsirabe art Paul
 'Paul went to/was in Antsirabe.'

Randriamasimanana (1999b.)

The (complex) motion verb shown in (4) can be decomposed into a higher verb, as in (5), and a lower verb, as in (6). Note that the higher verb *n-andeha* 'went' takes a past tense-marker, whereas the lower verb takes an aspect-marker *t-*. The main reason why this morpheme *t-* is analysed as an aspect-marker and not as a tense-marker is due to the fact that the higher verb contains the atomic feature [+ CONTROL], which will trigger incorporation of the embedded Small Clause into the higher verb, thus turning the constituent *t-any Antsirabe* into an argument of the higher verb and not into a mere adjunct. This distinction between an argument of the verb and an adjunct was already noted although not accounted for in Rabenilaina (1985).

It was shown in Randriamasimanana (1999b) that when the higher verbal predicate does not take a positive value for this atomic feature, i.e. [- CONTROL], then the embedded Small Clause will simply remain an adjunct and will not become an argument of the higher verb:

(7) N-i-petraka t-any Antsirabe i Paoly.
 past-prf-stay perf-at Antsirabe art Paul
 [+/- CONTROL] Argument/Adjunct
 'Paul stayed at Antsirabe.'

- (8) **T-any** Antsirabe no n-i-petraka i Paoly.
Past-at Antsirabe part past-**prf**-stay art Paul
Adjunct [- CONTROL]
 'It was at Antsirabe that Paul was living.'

- (9) **T-any** Antsirabe no n-ipetrahan' i Paoly.
Perf-at Antsirabe part pst-i-root-**circ**-by art Paul
Argument [+ CONTROL]
 'It was at Antsirabe that Paul made his home.'

Randriamasimanana (1999b.)

Thus in (7) the verb 'n-ipetraka' 'stayed' in Malagasy is ambiguous between a + or a - CONTROL interpretation in that it could mean either that 'Paul took an active part in selecting his place of residence' or simply that 'Paul just happens to be living at this particular location'. In its [- CONTROL] interpretation, the constituent made up by *t-any Antsirabe* will remain a mere adjunct of the higher verb. The independent evidence that shows that indeed it remains an adjunct is provided in (8): When the constituent is moved to the front, nothing happens to the higher verb, it remains in the active voice. On the other hand, when the higher verb has a positive value for the same feature, as shown in (9), then when the constituent is moved to the front, the higher verb must be passivised otherwise an ungrammatical sequence will ensue.

Section C: Di-transitive verbs.

It is not only lexical causative verbs like 'kill' and motion verbs which require a Small Clause analysis. Di-transitive verbs also do. Consider the following:

- (10) N-anome *an'i Jeanne ilay boky* i Paoly
 'past-give DO art. J. the(previous mention) book art. Paul'
 'Paul gave Jeanne the (previously mentioned) book.'

- (11) *An' i Jeanne ilay boky.* = Small Clause S.
 Nonverbal
 Predicate article J. article book
 'The (previously mentioned) book belongs to Jeanne.'

Where the nonverbal construction *an'i Jeanne ilay boky* shown in (11) does have an independent existence as a clause of its own: In this utterance *an* is a nonverbal predicate in that it certainly cannot accommodate a tense-marker –just like other Small Clauses of Malagasy. In (10) the same word is tentatively analysed as a case-marker. However such an analysis will not do since if we replaced the constituent *an'i Jeanne* with another constituent like *ilay olona* 'the (previous mention) person', the putative case-marker will not have to appear at all. In fact, it will now be purely optional:

- (12) N-anome (*an*) *ilay olona ilay boky* i Paoly
 'past-give (DO) art. person the(previous mention) book art. Paul'
 'Paul gave the person the (previously mentioned) book.'

If on the other hand, we analyse *an* as a nonverbal predicate, an explanation for the optionality of the nonverbal predicate *an* is readily available in Malagasy. When the word is present within the utterance, there is no particular problem since it will mean something like 'belong'. If it is absent from the utterance, then we obtain a slightly different kind of Small Clause, a subtype described in some depth in Rajaona (1972):

- (13) *Tsena ny olona.*
 Market the people
 'People hold market.'

Rajaona (1972)

Where the word *tsena* 'market' serves as a nonverbal predicate and where the constituent *ny olona* 'the people' will be the grammatical subject so that the thematic relationship obtaining between the two elements is one involving possession.

While up to this point the difference between a case-marker analysis and a Small Clause analysis may still not be decisive with respect to the utterances shown in (10) and (12), here is a case where it does make a crucial difference. The following case of di-transitive verbs comes from Keenan (1999: 34).

- (14) *Nanolotra vary ho an'ny vahiny t-amin'ny lovia vaovao aho*
 Past-hand rice to the guest past-with the dish new I

The intended meaning for (14) is: 'I presented rice to the guest on the new dishes.' However, the Malagasy sentence means something entirely different, i.e. 'I presented rice (which was destined) for the guest on the new dishes' with a relative clause kind of meaning.

One major assumption inherent in (14) analysed as meaning 'I presented rice to the guest on the new dishes' is that the particle *ho* (just like the particle *an* in sentence (10)) is a case-marker. Unfortunately to the native speaker this word *ho* is not a case-marker, it means something like 'which was destined for' in that it invariably forms the beginning of a relative clause making more precise the meaning of the headnoun *vary* 'rice' to which it is attached.

By contrast, with a Small Clause analysis of (14), we will simply leave the particle *ho* out altogether, obtaining the following two possibilities, both involving Small Clauses:

- (15) *N-anolotra [vary ny vahiny] [t-amin'ny lovia vaovao] aho.*
 Past-hand rice| the guest past-prep the dish new I I

- (16) *N-anolotra [ny vahiny vary] [t-amin'ny lovia vaovao] aho*
 Past-hand the guest rice| past-prep the dish I I

Both (15) and (16) mean: 'I presented rice to the guest on the new dishes.' In (15), we have two Small Clauses, the first with a nonverbal predicate *ny vahiny* 'the guest'; the second with a

prepositional predicate comprising a past tense-marker *t-* indicating that this constituent is a mere adjunct to the higher verb. In (16), we also have the inverse word order within the first Small Clause.

Part II: Malagasy and Null Subjects

As a preliminary, it is essential to distinguish between discourse context-based null subject phenomena, on the one hand and linguistic utterance-based null subject phenomena, on the other hand, in Malagasy. We will refer to the first category as type 1 null subjects and to the second category as type 2 null subjects. In what follows, we will concentrate exclusively on the nature and function of the latter category.

Section D: Discourse context-based null subjects.

The relevant cases allow access to the identity of the referent from the immediate context of the given utterance. Reference could be either to the speaker/writer as in (17) or to the interlocutor as in (19). Note by contrast that foreigners tend to have an overt grammatical subject even when none is required, as in (18).

- (17) Date: Fri, 05 Mar 1999 12:19:59 -0500
 From: JR<r@magma.com>
 To: R<uzsmav@uni-bonn.de>
 CC: fbra2@bigfoot.com

M-amerina ny arahaba ho an'i Mia sy ny rehetra [~] [1st S]
pres-renew the greeting for art Mia and the all **Empty**
 '(I) renew my greetings to Mia and to everybody...'

- (18) Subject: Valin'dresaka hoan'i Rina Ralison
 Date: 1997/10/09
 Author: DD d.@math.u-strasbg.fr

Faly m-iarahaba anareo rehetra aho.
 Happy **pres-greet** you-plural all I
 'I am happy to greet you all!'

- (19) Date: Thu, 24 Dec 1998 06:52:17-0500
 From: CRab114103.442@compuserve.com
 Sender: CRab114103.442@compuserve.com
 To: Charles Randriamasimanana

M-anao ahoana indray ^{~?} [1st S in message]
Pres-do how once-more **Empty?**
 'How are (you)?'

Section E: Linguistic utterance-based null subjects.

As will be seen in Part III, there is a direct correlation between the distribution of Malagasy AGR(eement) and the obligatory presence of the grammatical subject ; whereas its absence coincides with the possibility of an empty subject. In other words, with type 2 null subjects, there is a link between the structure of the linguistic utterance and the distribution of empty subjects, specifically there is a crucial relationship obtaining between the inflections for tense/aspect and the like and the grammatical subject within the utterance.

What will first be illustrated below is the crucial relationship between the specifier and its head, and in particular, Malagasy AGR(eement) and the specifier, as this phenomenon has not been extensively explored and discussed in the literature. As noted in Randriamasimanana (1997), AGR imposes a singular vs plural meaning on the grammatical subject of the clause, thus highlighting the crucial importance of the spec-head relationship in this language. Relevant illustrations go as far back as the nineteenth century and include examples from Abinal & Malzac (henceforth A & M) (1888) as well as from contemporary sources:

(20) *Ireo m-iady ireo ny zanakao.*
AGR pres- fight AGR the children-of-yours
Plural verb plural
'Voilà vos enfants qui se battent.' A & M 1888: 282)
From French to English: 'Your **children** are there, fighting.'
Literally: 'Your children are fighting --as we can see for ourselves.'

(21) *Io tamy io ny zanako.*
AGR coming AGR the child-of-mine
Singular verb singular
'Voici mon enfant qui vient.' (A & M 1888: 281)
Eng.: 'Here is my **child** coming.'
Literally: 'My child is coming --as you can see for yourself.'

(22) To: fbraz2@bigfoot.com
Date: Mon, 18 Jan 1999 00:38:14 -0500
From: crazafi@juno.com (Carol M Razaf...)

Ireto manaraka ireto ny valin'ireo ohabolana 11-20...

AGR verb AGR the answers

These pres-follow these the answer-of-those proverbs 11-20

'The **answers** to proverbs 11 to 20 are following...'

In (20) from (A & M. 1888: 282) and (22) from an e-mail dated January 1999, we have an illustration of a plural AGR(eement), i.e. one of a number of Malagasy deictics such as *io* 'this-singular-near the hearer', *ireo* 'these-plural-near the hearer' and *ito* 'this-singular-near the speaker' and *ireto* 'these-plural-near the speaker' which morphologically encodes the singular vs the plural, which shows up under inflections along with tense and aspect. The grammatical number which appears on AGR will affect the semantic interpretation of the grammatical subject:

Thus, in (20) and (22), because AGR is plural, the subject has to be interpreted as plural; whereas in (21), where AGR is singular, the subject must be interpreted as singular. By contrast if AGR was to be left out in, for instance, (20) or (22), the relevant subject could then receive either a singular or a plural interpretation, depending on the extralinguistic context of situation.

Section F: Nature and Function of Malagasy AGR.

In Malagasy, the absence of morphology corresponding to AGR, tense/aspect indicates a context-dependance of temporal location along the time axis whereas the presence of AGR, tense/aspect morphologically signals overt linguistic encoding of location along the time axis. In the first type of situation, location within the speaker here and now is usually assumed, in other words, 'de re' is assumed to coincide precisely with 'de dicto' and as a direct consequence, no overt indication of time location within the utterance is required since the relevant bit of information is recoverable from the immediate context; whereas in the second, a fundamental and basic distinction between 'de dicto' and 'de re' is assumed and as a result, an overt indication of time location within the utterance is absolutely indispensable since in such a case, there is no possibility of recoverability of the missing pieces of information.

In light of the system described above, the following revised meaning is proposed for the already published sentence below from Keenan (1976: 257):

- (23) *ÿ-sasan-dRasoa ny lamba.*
 ÿpass-be-washed-by Rasoa the clothes
 'The clothes are washed by Rasoa.'

This sentence, which contains a zero tense-marker should mean 'The clothes are being washed by Rasoa' and not as originally claimed by the author. Some evidence pointing in that direction comes from the following electronic message:

- (24) To: fbra2@bigfoot.com
 Date: Mon, 1 Feb 1999 01:10:24 -0500
 Subject: Ohabolana 21-30(V), 31-40(L), 1-10(F)
 From: Carol M Razafi... <crazafi@juno.com>

ÿ-arabaina daholo indray ianareo rehetra,
 Pass-saluted all once you-plural all
 Literally: 'You **are** all **being** saluted (by me)!'

Where it is quite clear that there is a correlation between the zero-tense morpheme and location within the speaker/writer here and now. This contrasts with the presence of an overt tense-marker, as in the following sentence adapted from E. Keenan (1976: 255):

- (25) *M-anasa lamba amin'ity savony ity Rasoa.*
Pres-wash clothes with this soap this Rasoa
 Translated as 'Rasoa is washing clothes with this soap.'

Which actually means ‘As a rule, Rasoa washes clothes with this soap’ and not as originally translated. In fact, in order to convey the meaning ‘Rasoa is washing clothes with the soap’, one has to say:

- (26) *Ity m-anasa lamba amin'ny savony ity Rasoa.*
AGR pres-wash clothes with the soap AGR Rasoa
 ‘Rasoa **is washing** clothes with the soap.’

Where the singular deictic *ity* ‘this’ functions as an AGR inside the inflections for tense/aspect and not accompanying the noun *savony* ‘soap’, as in

- (27) *M-anasa lamba amin'ity savony ity Rasoa.*
 Pres-wash clothes with **this** soap **this** Rasoa

Sentence (27) is a perfect sequence except that its meaning has nothing to do with the original translation provided under (25) but rather with something like: ‘Hey, Rasoa, go and wash clothes with this soap!’ Note that this new interpretation is in line with the kind of analysis proposed for lexical causatives in section A above, where the higher verb *an* derived from the compression of *anao* ‘do’ in (27) will refer to the inception of the activity described by the verb; furthermore, the overt tense-marker *m-* indicating the present tense does not strictly locate the event within the speaker here and now. See Randriamasimanana (1985) for an analysis of this phenomenon.

Part III: An Account of the Distribution of Null Subjects

At this stage, we will look into the distribution of type 2 null subjects. This is linked to the distribution of AGR. In fact, the distribution of AGR coincides with the obligatory presence of the grammatical subject; whereas its absence coincides with the possibility of an empty subject. However, as far as tense projections are concerned, the nominal or non-nominal nature of the head is crucial.

Section J: AGR and Control Structures.

As outlined in Randriamasimanana (1998), **AGR only shows up in a matrix clause** and usually cannot show up in a structure embedded under a Control predicate:

- (28)a. N-itady [... h-anjaka $\bar{\quad}$] Ravoniarisoa ...
 Past-seek [... fut-dominate EC] Ravoniarisoa
 "Ravoniarisoa sought to dominate."
 From Rajaona 1969, *TN*, page 50, lines 156-157.

- b. *N-itady [**ity** h-anjaka **ity** $\bar{\quad}$] Ravoniarisoa.
AGR AGR

- (29)a. M-angataka anao aho [h-itondra ity any amin-dRama $\bar{\quad}$]
 Pres-ask you I [.. fut-take this to pre-Rama EC]

From Randriamasimanana (1997: 490).

- (33) N-ikasa (ny) h-itondra ilay fiara - i Paoly.
Past-intend (comp) fut-drive the car EC art. Paul
'Paul intended to drive the (previous mention) car.'
- (34) N-andefa entana ho azy i Paoly.
past-send parcel part. him-DO deic Paul
'Paul sent a parcel which is for him/her.'
- (35) N-andrama-n' i Paoly no-loko-ina ny trano.
past-try-by deic Paul past-paint-by the house.
'Paul tried to paint the house.'

From Randriamasimanana (1997: 491).

In (34), we have the purely lexical item *ho* as head of construction with the meaning of something like 'which is destined for' and its complement, the pronoun accompanying it, must be in the accusative form of the third person pronoun *azy*. This contrasts with the situation in (33), where the head of construction is the tense-marker *h-* in the embedded clause, a form which is not purely lexical. On the other hand, in (32) the head of the embedded clause is the future tense-marker *ho*, which is exactly the same as the purely lexical item in (34). It looks therefore as though the independent morpheme *ho* in (32) behaves more like a purely lexical item like the one in (34); as a consequence of this, it is legitimate to assume that it carries a case feature with it. Finally, in (35) we have an illustration of the behavior of the independent morpheme for past tense *no*, which is exactly the same as for its future tense counterpart *ho*: Indeed *no* like *ho* requires an overt subject in the embedded structure *no-loko-ina ny trano* even though this form appears to be well on its way to becoming a clitic to the verb and acquiring the status of a verbal prefix.

Section L: Non-nominal Nature of Complementizer.

In essence in (34), we had a purely lexical item projection of the particle *ho*. That contrasts with the behavior of the (apparently) same item serving as a complementizer introducing an embedded equative type of clause, as argued for and illustrated in Randriamasimanana (1986: 562-563) and explained in Randriamasimanana (1997: 491):

- (36) M-ihevitra azy ho m-ahay - i Paoly.
pres-think him comp pres-intelligent Empty deic Paul
'Paul considers himself intelligent.'
- (37) M-itady ho babena - i Paoly.
pres-seek comp lift-pass. Empty deic Paul
'Paul wants to be picked up.'

From Randriamasimanana (1997: 491).

In (36), the embedded clause comprises an equative type of structure (as opposed to a nonequative type or specifically one which involves Control as defined in Randriamasimanana (1986: 29-74)). The relevant complementizer which accompanies such a clause is the function

word *ho* precisely. Note that this function word does not seem to be accompanied by any apparent case feature as an empty subject is permissible in the subordinate clause in both (36) and (37).

Section M: Other Consequences of Spec-Head Relationship.

As the inflections domain within a clause covers projections corresponding to AGR, tense and aspect respectively and since there is a privileged relationship obtaining between inflections as head of the entire sentence and its specifier, it is no big surprise that the semantic interpretation of the subject is influenced by what appears under inflections.

In this section, the co-variation in semantic interpretation of the grammatical subject with the voice, tense and aspect showing up under inflections will be succinctly described. Subsequently it will be shown that Malagasy has recourse to movement to the front as a strategy to avoid an anomalous interpretation of the subject.

The relevant constructions involve a passive voice verb with different inflections for tense and aspect on them. There exist four basic cases to consider:

A. **No..in(a)** passive typically indicates a **PUNCTUAL** aspect. As a result of this, the subject is usually interpreted as an entity affected as an unanalyzed whole.

- (38) No-didi-ndRabe ny mofo. Punctual meaning
pst-root-pass-byRabe the bread
'The (whole) bread was cut by Rabe.'

B. **...in(a)** passive typically describes an **ONGOING ACTIVITY**, as in (24) above. Typically no overt reference to the referent of the subject is required, which is retrievable from the extralinguistic context of situation.

C. With **an...in(a)** circumstantial voice, we usually have a **DURATIVE** aspect, hence **partitive** interpretation of the subject since its referent is only partially affected.

- (39) N-an-didi-andRabe ny mofo. Partitive meaning
pst-active-root-circ-byRabe the bread
'(Some of the) bread was cut by Rabe.'

D. With **a...in(a)** passive, there is the notion of **INCEPTIVE/BALLISTIC** aspect. Only referents that contain this particular feature, i.e. which only requires an initial impulse will be able to appear in the grammatical subject position.

- (40) N-a-tsipin-dRabe ny rano. Ballistic meaning
Past-pass-throw-by-Rabe the water
'The water was thrown away by Rabe.'

What appears under subsection C is particularly relevant for a newly published Malagasy sentence reproduced immediately below:

- (44) *N-i-petraka* *t-any Antsirabe* i Paoly.
Past-verb **Perf-prep**
[+ **CONTROL**] **Argument**
Past-stay past-Antsirabe art. Paul
‘Paul stayed, i.e. chose to stay at Antsirabe.’
- (45) *T-any Antsirabe* no *n-i-petraha-n’* i Paoly.
Perf-at Antsirabe part. **Past-circ-live-by** art. Paul
Argument
‘It was at Antsirabe that Paul was living, i.e.’ chose to live.’
- (46) **N-i-petraha-n’* i Paoly **t-any Antsirabe.**
Past-circ-live-by art Paul **Perf-at** Antsirabc
[+ **CONTROL**] **PARTITIVE?**

Thus, in (44) the higher verb *n-i-petraka* can receive a [+ CONTROL] interpretation so that the constituent *t-any Antsirabe* can be assumed to have been incorporated into the higher verb. The evidence for this comes from the circumstantial form of the passive on the higher verb, as in (45). However, it is not possible to keep the newly derived subject *t-any Antsirabe* in the external subject position, as demonstrated by the ungrammaticality of (46): The newly derived subject will have to be compatible with a partitive reading, as is usually the case for subjects accompanying a circumstantial passive form, as illustrated in sentence (39) above. To avoid such an anomalous interpretation, the newly derived subject will have to move out of the range of the projection of inflections, i.e. Away from Spec and towards the front.

Conclusion

The main purpose of this paper was to use Kayne 1981’s principle of Binary Branching in conjunction with the concept of Small Clause –in addition to basic principles proposed in Chomsky (1981, 1982 and 1986b)-- to account for the distribution of null subjects in Malagasy. As a starting point, we assumed a kind of tree diagram such as in Randriamasimanana (1998: 304), where there is a distinction between the projection of a lexical item and that of a function word.

Sections A, B and C show that there are advantages to a Binary Branching analysis of even lexical verbs, motion verbs and di-transitive verbs in Malagasy: In section A relative to lexical causatives, it was shown that such an analysis sheds some light on the semantic interpretation of sentences like (1), where the Malagasy verb ‘kill’ simply does not entail that the patient is dead and that to account for such a reading, we need an analysis of the lexical causative into a higher and a lower verb –this will presumably necessitate a revision of the nature of the projection of lexical verbs as represented on Figure 1 along lines sketched in Koizumi (1995); section B involving motion verbs highlights the crucial importance of the positive value for the atomic feature CONTROL associated with the higher verb in the process of incorporation of the lower structure into the higher verb, as in (4), whereas section C illustrates the superiority of an analysis based on the twin notions of Binary Branching and Small Clause as opposed to a

treatment of certain Malagasy particles as representing case-markings from the main verb, as proposed in (10).

Sections D and E distinguish between discourse context-based null subject phenomena, i.e. type 1 null subjects from linguistic utterance-based null subject phenomena, i.e. type 2 null subjects as tentatively summarized on Figure 2. This then paves the way for some understanding of the nature and function of Malagasy AGR in section F in terms of the singular or plural interpretation of the grammatical subject depending on what shows up under the inflections for voice, tense and aspect. The partial description of the distribution of type 2 null subjects described in sections J and K enables us to account for the distribution of empty subjects in terms of the nominal or non-nominal nature of the inflections for tense: This language has a series of parallel tense-markers for at least the future and for the past tense. The selection of the relevant series is dependent upon the verbal voice on the embedded structure as well as the selectional requirements of the higher verb since the latter will often dictate the voice to be utilized in the embedded position, as illustrated in sentence (31), for instance. This is of crucial importance in a language like Malagasy since as outlined in Randriamasi-manana (1999a: 37), it has a very high frequency for passive in texts. One reason why this is so has to do with the notion of barriers as proposed in Chomsky (1986b) and illustrated for Malagasy in Randriamasimanana (2000: 274-276). Finally, one of the major consequences of the special relationship between the inflections head of the clause and its specifier is that if there is a clash between inherent features of the subject and those contained in the head inflections, then the subject will have to move out of the domain range of the head, i.e. to the front within the sequence, as illustrated in (45). This kind of move fits in well within a minimalist framework such as the one proposed in Radford (1997).

The overall picture that emerges from the above is that all Malagasy verbs have to be analyzed as comprising a higher as well as a lower predicate, that the higher verb is compatible with a tense-marker, but that the lower predicate is only compatible with an aspectual marker. This suggests that the inflections projection in Malagasy should be exploded into separate projections of tense as well as aspect along lines sketched in Pollock (1989): Aspect as defined in Comrie (1976) will be the closest to the root or radical of the verb, followed by tense --also as defined in Comrie (1985)—which will have a projection of its own; sitting on top of the previous two projections, we will have an AGR(ement) projection, whose presence requires an explicit grammatical subject in Malagasy. This contrasts with the behavior of tense-markers some of which may be nominal in nature whereas others are not nominal in nature, with direct consequences on the possibility of a null subject.

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