

Evidence for Null Subjects in Malagasy

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1. Introduction.

This paper shows how the concept of Empty Category¹ of the kind proposed in Chomsky (1981, 1982) is indispensable in an adequate description of Malagasy syntax and exploits in a systematic manner one central idea put forth in Randriamasimanana (1994a, 1994b). Basically the availability inside the functional³ head² of a clause, i.e. the Inflections (Infl, for short) for tense/aspect of a nominal⁴ element accounts for the indispensable presence of an overt subject noun phrase⁵ inside the Malagasy clause. If such a nominal element is not present inside Infl, then a Malagasy sentence need not have an overt subject nounphrase.

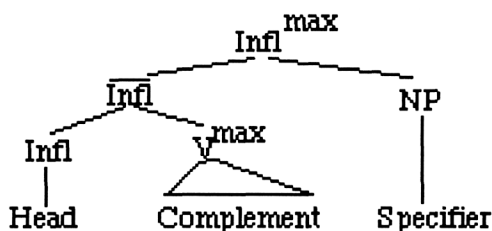
The major purpose of this paper is to show how the two facets of the main idea just presented apply through a whole range of Malagasy constructions involving Control and Stative predicates, Antecedent Government, Complex Movement Verbs, Raising and Marked Causative constructions. Each one of the above will be illustrated in turn.

But first, one basic assumption underlying this paper needs to be made explicit. That is that a tree representation such as the one shown on Figure 1 below will be assumed following Chomsky (1986b). As a result, the basic intuition about the occurrence of Empty Categories in subject position in Malagasy can be summarised as shown on Figure 2 below. Note however that the Tense option shown in section (i) of Figure 2 will not be dealt with in depth. See Randriamasimanana (1994b) for additional illustrative examples involving this specific case.

2. Assumptions and Summary of Findings:

2.1 X-Bar Theory.

As shown on figure 1, the tree representation chosen to describe the internal structural organization of a Malagasy clause follows one version of X-Bar theory found in Chomsky (1986b); in particular, his distinction between lexical heads for grammatical categories such as V(erb), N(oun), P(reposition) and A(djective) and functional heads for function words such as Agreement, Aspect, and Tense --the last three being subsumed under the label 'Infl' for the purpose of the present



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

paper. In addition, it is assumed that each one of the above categories, i.e. functional as well as lexical, will have a two-level projection in terms of a one-bar level and a two-bar level (here, represented as 'max', i.e. maximal projection of the given category). The label NP is used to symbolize either a DP or Definite Phrase projection, i.e. a noun phrase comprising a definite determiner which serves as the head of the entire projection --following Abney (1987)-- or a bare noun phrase, i.e. a phrase which only comprises a noun without a determiner. Obviously, crucial to our present concern is the view that 'Infl' representing tense, aspect and agreement is the head of the entire clause; whereas the verbal predicate labelled 'Vmax' is its complement and the NP occupying the subject position inside the clause is a Specifier.

2.2 Summary of the Distribution of Empty Categories

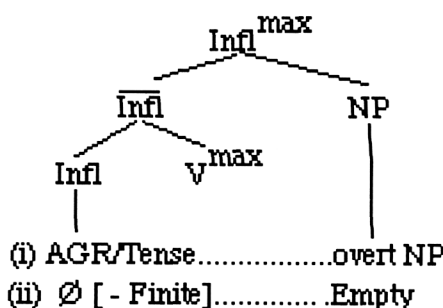


Figure 2: Summary of Distribution of Empty Categories

As seen on figure 2, when agreement or AGR is present within Infl, the head of the clause, the subject position NP must be

filled by an overt noun phrase. Likewise, when a certain kind of case-carrying tense-marker occupies Infl (see Randriamasimanana 1994b for detail). However, when no AGR shows up under Infl, then the subject position is typically empty. Obviously the above only pertains to a subset of Empty Categories to the exclusion of structures involving Raising predicates and those involving an embedded Small Clause⁶. In addition, note that when the predicate is incompatible with AGR, such a predicate will accommodate only a [- finite] Infl and as a result, the Empty Category showing in subject position will automatically get assigned the interpretation of arbitrary big PRO.

2.3 Sentence Subject Requirement In Malagasy.

Malagasy sentences --especially where matrix or independent clauses are concerned-- prototypically require an overt subject noun phrase even if the clause involves a weather predicate.

- (1)a. Alina ny andro⁷.
 night the day
 "Night has fallen."
 b. ?*Alina
- (2)a. Mivatravatra ny orana⁸.
 rain-heavily the rain
 "A heavy rain is falling."
 b. *Mivatravatra

As seen in (1)a and (2)b, when the subject of a clause is left out as in an out-of-the-blue type of situation, the utterance becomes ungrammatical. However, in some cases an appropriate context of situation may be invoked in marked configurations which for example involve discourse considerations to justify the use of sequences such as (1)b.

2.4 Reflexivization and the Subject in Malagasy.

It is a well-known fact about Malagasy reflexive that (i) it requires its antecedent to be in the same clause as the reflexive and that (ii) the antecedent must be a subject. Consult Randriamasimanana (1986) for an in-depth treatment.

- (3) N-amono tena i Paoly.⁹
 past-kill self Paul
 "Paul killed himself."
- (4)a. N-ilaza tamin'i Jaona i Paoly [fa h-amono tena ---]
 past-say to John Paul that fut-kill self EC
 "Paul told John that he (Paul) would kill himself."

- b. N-ilaza tamin'i Jaona [fa h-amono tena ---] i Paoly.
 "Paul told John [that he (P.) would kill himself EC]."
 *"Paul told John to kill himself."

Given sentence (3), it must be the case that inside the embedded clause between square brackets in (4)a there has to be an antecedent to the reflexive 'tena' and that antecedent does not have phonetic content. Likewise in (4)b, where we note that the antecedent can only be a subject, i.e. 'i Paoly' and never a nonsubject, for example, 'i Jaona'.

Overall the above suggests that in a marked structure, i.e. in an embedded position, for instance, the subject of a given Malagasy clause is likely to be an Empty Category (EC). However, see (11) and (12) below pertaining to other types of predicates showing up in independent or matrix clauses.

2.5 Empty Categories in Subject Position.

Now, in complex constructions involving a Control predicate, a Movement Verb predicate and a Raising predicate, the required overt subject noun phrase appears to be absent from all the relevant embedded structures (shown between square brackets).

- (5) M-ikasa [h-amono tena ---] i Paoly.
 pres-intend [fut-kill self EC] Paul
 "Paul intends to kill himself."
 (6) N-angataka an'i Paoly [h-amono tena ---] i Jaona.
 past-ask DO Paul [fut-kill self EC] John
 "John asked Paul to kill himself."
 (7) Lasa [n-andeha ---] [n-amono tena ---] i Paoly.
 gone [past-go ---] [past-kill self EC] Paul
 "Paul went and killed himself."
 (8) I Paoly aloha marina tokoa [fa n-amono tena ---].
 Paul first true truly [that past-kill self EC]
 "First of all, it is true that Paul killed himself."

In (5), we have a subject Control construction; in (6), an object Control construction; whereas in (7), we have a complex Movement Verb construction and in (8) a Raising construction. In each one of the embedded clauses between square brackets, there is a reflexive, which under normal circumstances requires a subject within the same clause. Now, such a subject cannot have phonetic content. It must be an Empty Category, in Chomsky's sense (Chomsky 1981, 1982).

3. Accounting for the Distribution of Empty Categories:

The explanation for the phenomenon shown in (3), (4), (5),

There cannot be a nominal element AGR 'ity' inside the head of the Inflections for tense/aspect head of the clause embedded under a Control predicate --as in (5) or (6)-- above. The situation is similar with respect to the additional examples reproduced below from published texts:

- If, as shown in (9)b, and (10)b an AGR is inserted onto the embedded predicate the sequence is irretrievably ungrammatical. This means that the embedded clause must have an Empty Category as its subject since an overt noun phrase would

not be able to receive case as we make the assumption following Chomsky (1981) that all noun phrases in a given clause must receive case otherwise this would result in a violation of Case Theory, a component of Universal Grammar, and the ensuing sequence would be ungrammatical. This would precisely be the case in the sentences in (9)b and (10)b above if there was an overt subject noun phrase in the embedded position since no AGR is possible in the embedded position of Infl.

3.2 The Case of Stative Predicates.

When the embedded predicate is a so-called 'stative' predicate, it has to be noted that a null subject can also occur even in a matrix or independent clause, as can be seen in the following:

- (11) Tsy mbola teraka hono ---! 12
 Not yet born be-said EC
 "X is said to be not yet born!"

Prototypically, in the case of a stative predicate, there is incompatibility between the nominal element AGR 'ity' = 'this-singular', for example and the said predicate.

- (11) ***Ity** teraka **ity** ilay saka¹³.
 AGR born **AGR** the cat

?*"The (previous mention) cat is being born."

One potential explanation for the possibility illustrated in (11) is related to the behavior of stative predicates in general in Malagasy, i.e. that they do not as a rule combine with AGR in the same manner a Deliberate Activity type of predicate would. Indeed in (9)a and (10)a above, the predicates were of the Deliberate Activity type, as illustrated for instance in (12) below, whereas in (11), the predicate is stative.

3.3 A Case of Antecedent Government.

With sentences such as (12)a below, the predicate, which belongs to a Deliberate Activity type, is compatible with AGR--as seen in (12)b-- it is just the case that in (12)a the present value of AGR is 'zero' and that this empty but finite AGR refers back to a previous mention earlier in the discourse. This intermediate context between cases (i) & (ii) is left out of Figure 2:

- (12)a. ... H-amp-anambadiana ahoana ange ---- ? 14
 ... Fut-CAUS-marry-passive how Q EC
 "To be married, how?"
- b. **Ity** h-amp-anambadiana **ity** i Jeanne ê!
AGR fut-CAUS-marry-passive **AGR** art. Jeanne Excl.
 "Jeanne is just about to be married off!"

Indeed, (12)a can be used as a reply to an initial query, thus forming the second part of an adjacent pair of utterances. Also important is the fact that in (12)a, the predicate is in an independent clause, as opposed to the situation in (9)a and (10)a, where the predicate located inside the square brackets is in an embedded position.

3.4 The Case of Complex Movement Verbs.

In a sentence comprising several predicates including one or several Movement Verbs, the subject(s) is/are also null, as can be seen in the following sentence involving cases of adjunction and where --- represents an empty subject position in each one of the embedded structures between square brackets:

- (7)a. Lasa [... n-andeha ... ---] [...n-amono tena ---] i Paoly.
 gone [past-go EC] [past-kill self EC] Paul
 "Paul went and killed himself."
- b. *Lasa [**ity** n-andeha **ity** --] [**ity** n-amono tena **ity** --] i P.
AGR **AGR** EC **AGR** **AGR** EC

The Empty Category is required since the Inflections for tense/aspect on predicates accompanying a Movement verb like "lasa" = "gone" canNOT comprise AGR(eement), as suggested by the ungrammaticality of the sequence in (7)b; only a tense is possible and in the case of (7)a above, the relevant tense-marker does not in any way involve a lexical item which carries case (See Randriamasimanana 1994b for detail). Note the presence of the same tense-marker on both adjunct clauses in (7)a, which means that only tense is present in constructions involving *this type of adjunction*. Also, recall that in Malagasy, the aspect layer is nearest to the verb radical; then comes the tense layer; and last comes the optional AGR layer, on the outside, if permissible.

3.5 The Case of Raising Predicates.

In the case of a Raising construction --as in (8)--, there is a nominal element AGR in (8)c inside the embedded inflections for tense/aspect and therefore there must be an overt subject nounphrase in the embedded position.

- (8)a. I Paoly aloha marina tokoa [fa n-amono tena ---].
 Paul first true truly [that past-kill self EC]
 "First of all, it is true that Paul killed himself."
 b. Marina tokoa [fa ... n-amono tena ... i Paoly].
 true really [that ... past-kill self art. Paul]
 "It is true that Paul killed himself."
 c. Marina tokoa [fa **iny** n-amono tena **iny** i Paoly].
 true really [that **AGR** past-kill self **AGR** art. Paul]
 "It is true that Paul AGR killed himself."

However, such an overt subject noun phrase is often moved around, i.e. specifically just above the higher clause --as seen in (8)a-- when the matrix clause is preceded by a case-carrying preposition such as 'aloha' = 'first', whereas the AGR element does not surface in the embedded clause: For example, in (8)a AGR (which is possible, as shown in (8)c) does not materialize as 'ity' = 'this' and native speakers of Malagasy prefer to move the embedded subject 'i Paoly' from the embedded structure into the higher clause, as shown in (8)a. This is an instance of a kind of Empty Category different from what has been dealt with so far. We have here the equivalent of English t(race), which involves moving one element from one position into another, as opposed to anaphoric PRO in, for example, (5) and (6).

3.6 The Case of Marked Causative Constructions.

Finally, in Malagasy there exist predicates of the type labeled 'marked' in Randriamasimanana (1986), in particular, the Causal Causatives with -aha-, which can occur in a sentence with no overt subject at all to accompany the embedded predicate, i.e. 'fatifaty' in (13) and 'olombelona' in (14), both being used predicatively.

- (13) Fito taona izy izay maty izay. Zaza n-aha-[fatifaty
 seven years he at dead that. Child past-CAUS-[be
 ---], dongadonga, baribary maso ----. 15
 charmed EC] chubby, with-big-eyes ----.
 "He was seven years old when he died. He was a charming,
 chubby child with big eyes."

- (14) '... ny m-aha-[olombelona ---] mihitsy ... 16
 the pres-CAUS-[human being EC] indeed
 "What really makes (one) a human being..."

Typically in (13) and (14), we have a Causal Causative construction with -aha- showing an empty embedded subject corresponding to a big PRO with an arbitrary interpretation. Note that the embedded predicate is a prototypically stative kind of predicate, incompatible with AGR in both embedded sequences. In (13) and (14) therefore, since Infl is totally incompatible with AGR, it presumably will contain a feature [- finite], as shown on Figure 2 above.

4. Conclusion.

The main purpose of this paper was to show that the concept of Empty Category is indispensable in an adequate description of Malagasy grammar. There exist large chunks of the grammar of this language involving Control, Stative predicates, Antecedent Government, Complex Movement verbs, Raising and Marked Causative constructions, which could not be accounted for without recourse to such a crucial concept. Three types of evidence to argue for the existence of Empty Categories in Malagasy were used: (i) actual sentences extracted from existing Malagasy texts (ii) the way a process such as Reflexivization works in this language in its interaction with a wide range of constructions found in the language and (iii) whether a given Malagasy predicate is compatible with AGR 'ity', for instance.

Indeed it transpires that the presence of AGR within Infl correlates with a mandatory overt noun phrase in subject position in a Malagasy clause; whereas its absence correlates with an Empty Category in that same position. Note also that if AGR has the value 'zero' but is finite, then there can be an overt subject noun phrase; now if AGR is totally incompatible with a given predicate, Infl will comprise a feature [- finite].

Finally, the seminal paper by Huang (1989) provided the basic insight into the analysis utilized in this paper while tree representations adapted from Guilfoyle (1990) provided a useful formal framework that supplemented Chomsky's Universal Grammar (1981, 1982, 1986b) and Abney's

(1987) treatment of definite phrases. No attempt was made in this paper to explode Infl into different projections of Aspect, Tense and AGR respectively.

Notes

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1. An Empty Category is a linguistic entity which carries semantic and syntactic information, but which is not phonetically realized, i.e. has no phonetic features and therefore, does not show up on the surface. For further detail, see Chomsky (1981, 1982)

2. In a sequence such as 'a big car', the head of the entire construction is 'car'. This is more obvious in Romance languages like French where the head 'voiture' = 'car' is feminine and singular; such features of the head are passed on to the other dependent elements inside the construction, i.e. "un-e (fem.) grand-e (fem.) voiture" = "a-feminine, big-feminine, car-feminine". See Chomsky (1986)b for further discussion.

3. In the sequence analysed in footnote 2 above, the head of construction was a noun, i.e. "voiture". However, the head could also be a nonlexical item, such as tense and aspect. In this instance, we speak of a 'functional' head. See Chomsky (1986)b for detail.

4. 'Nominal' means 'nouny' in this case.

5. The use of 'noun phrase' is intended to equivocate between 'definite noun phrase' and 'bare noun phrase'. This distinction is quite important in Malagasy syntax. However, for the purpose of this paper, we will not focus on this particular issue. See footnotes 1 and 7 in Randriamasimanana (1995)a

for further detail. Also consult Abney (1987) for an analysis of definite noun phrases.

6. A Small Clause is a construction which corresponds to so-called Equative Clauses found in many Austronesian languages. In such constructions, there is no equivalent of the English copula "be" and typically one has a sequence made up of two nounphrases or a predicate followed by its subject. As shown in Randriamasimanana (1994)b such constructions embedded under an Exceptional Case-Marking verb also involve movement.

7. Takelaka Notsongaina (TN, for short) or "Selected Texts", volumes 1 and 2, are an anthology of written texts compiled by Siméon Rajaona mostly from different Malagasy language newspapers and magazines. Both volumes serve as textbooks in the last two years of secondary school Malagasy in Madagascar. This is an excerpt from one text, i.e. text: "Jaona" by Zakaria in Ny Akon'Iarivo, n 77, 15 janvier 1925 in Takelaka Notsongaina, Ambozontany, Fianarantsoa, Madagascar 1969, pp 30-37. Page 31, line 26.

8. From TN, page 36, line 185

9. From Randriamasimanana 1986:250

10. From TN, page 50, lines 156-157.

11. From TN, p 65, lines 57-60.

12. From April 19, 1992 issue of the newspaper Lakroan'i Madagasikara, page 1, lower right-hand side corner.

13. The relevant interpretation for this sentence is provided below its word-for-word gloss. Now, there exists a different interpretation of this sentence, which is perfectly grammatical:

(9)b. Ity teraka ity ilay saka.

[ity] [the cat]

"This is where the cat was, giving birth!"

where 'ity...ity' heads a complex NP comprising a doubly-headed relative clause surrounding the predicate 'teraka' = '(was) born'. a simpler form of the same sequence would be the following:

- (9)c. [Ity] [ilay saka]
 [this][the cat]
 "Here [Emphasis] is the (previously mentioned) cat!"

14. From TN, p 40, lines 88-91.

15. From TN, p 30, lines 1-2.

16. From TN, p 10.

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