

# WHERE THE MALAGASY ADVERBS ARE

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Cinque's theory of adverbs differentiates between higher and lower adverbs depending on their position relative to TP. This paper examines the distribution of adverbs in Malagasy, since it appears not to behave the same as Italian. I will show that Malagasy has some lower adverbs that must be higher than tense, raising the question of what happens with the higher adverbs. The answer to this is that in Malagasy higher adverbs don't exist as such, they are forced even higher, as heads of other lexical categories selecting CP. Therefore, the sentential scope of the higher adverbs different in how it is syntactically realized, further accounting for the flexibility in their word order.

## 1. Introduction

That all languages follow a universal grammar never meant that all languages are the same, but regarding adverbs the hierarchy is strict, invariable cross-linguistically. However, Malagasy adverbs don't seem to respect this hierarchy. I will argue that the hierarchy stands, but that there is a flexibility in that the adverbs appear higher in the tree. I will show that it is because of this difference that in Malagasy the higher adverbs can change in linear order maintaining grammaticality. I will use the specifics of the diverse constructions of the language, i.e. phrase structure and its morphology to delimit the adverbs positions. Since the verb invariably raises to T° I use the inflected verb as a delimiting anchor and show how the adverbs are higher in the tree consequently making the higher adverbs extra-clausal. This paper will start with some background and then it will examine the problem in two parts. Section 2 is an overview of Cinque 1999, Rackowski 1998 and the relevant Malagasy facts. Section 3 presents the issue of adverb placement starting by showing that the lower adverbs in Malagasy are shifted higher in the tree. I then analyze how this shift in position affects the higher adverbs and makes them extra-clausal and accounts for the variability in linear order. Section 4 concludes.

## 2. Theoretical Background

### 2.1 Cinque

Cinque shows how adverbs cross-linguistically respect a hierarchy; as such, this is part of UG. He proposes that adverbs group by classes and that their phrases are a Spec position of functional categories (FPs). Since they must relate semantically to the head of the FP, we have an explanation of why two adverbs of the same type cannot coexist. The functional category heads between the adverbs serve as landing sites for movement. The adverbs divide in two main groups: 1) Higher Adverbs, which allow the auxiliary in different positions, and 2) Lower Adverbs, which allow the past participle in different positions.

### 2.1.1 Higher Adverbs

In verb raising languages, the inflected verb but not the participle may appear within the domain of the higher adverbs<sup>1</sup>. Below, (1) exhausts the positions for its auxiliary (*mi ero* '(myself) was').

- (1) a. *Mi ero* francamente *X* purtroppo *X* evidentemente  
 1SG.REFLX AUX.be-1SG.-PST frankly unfortunately clearly
- X* formato una pessima opinione di voi.  
 form-PART-PST DET-FEM very-bad opinion of you.PL
- b. *Mi ero* francamente purtroppo evidentemente formato una pessima opinione di voi.
- c. Francamente *mi ero* purtroppo evidentemente formato una pessima opinione di voi.
- d. Francamente purtroppo *mi ero* evidentemente formato una pessima opinione di voi.
- e. Francamente purtroppo evidentemente *mi ero* formato una pessima opinione di voi.

'Frankly I unfortunately had clearly formed a very bad opinion of you.'  
 (1b-e: Cinque 1999:49)

### 2.1.2 Lower Adverbs

The opposite happens within the domain of the lower adverbs. Below, in (2) the participle that moves and not the auxiliary, thus these adverbs are lower in the tree.

- (2) a. Da allora, non hanno *rimesso* di solito *X* mica *X*  
 Since then NEG AUX.have-3PL put.PART.PST usually (not)
- più *X* sempre *X* completamente *X* tutto bene.  
 any longer always completely all well (in order)
- b. Da allora, non hanno *rimesso* di solito mica più sempre completamente tutto bene in ordine.
- c. Da allora, non hanno di solito *rimesso* mica più sempre completamente tutto bene in ordine.

<sup>1</sup> X marks all allowed possible positions.

- d. Da allora, non hanno di solito mica *rimesso* più sempre completamente tutto bene in ordine.
- e. Da allora, non hanno di solito mica più *rimesso* sempre completamente tutto bene in ordine.
- f. Da allora, non hanno di solito mica più sempre *rimesso* completamente tutto bene in ordine.
- g. Da allora, non hanno di solito mica più sempre completamente *rimesso* tutto bene in ordine.

'Since then, they haven't usually not any longer always put everything well (in order)'

(2b-g: Cinque 1999: 45)

This seems to indicate that the lower adverbs must appear in positions between AuxVP and vP. Lower adverbs in that position follow the auxiliary allowing head-movement of the auxiliary to T°, and they allow the past participle to land in the head position of any of the functional phrases which contain adverb phrases in their Specs.

## 2.2 Rackowski

Rackowski investigates the Malagasy lower adverbs, which divide between pre- and post-verbal positions. It seems that in Malagasy the post-verbal adverbs are in the opposite order from that in Cinque's hierarchy given in (3). Rackowski proposes that both languages are underlyingly the same even though Malagasy post-verbal adverbs surface in opposite order (4).

- (3) 1                    2                    3                    4                    5                    6                    7                    8 ...  
 (speech act) > Generally > Neg > Already > Still > (at-all) > Anymore > Always >  
 ... 9                    10  
 Completely > Well

(Rackowski 1998:19)

- (4)                    2                    3                    4                    5                    (3)                    10                    9                    8 ...  
*Na(dia)* > *Matetika* > *Tsy* > *Efa* > *Mbola* > *Tsy* > *Verb* > *Tsara* > *Tanteraka* > *Foana* >  
 'Even' > generally > Neg > Already > Still > Neg > Verb > Well > Completely > Always >  
 ...7                    6                    1<sup>2</sup>  
*Intsony* > *Mihitsy* > (*Aza*) > *Ve*  
 Anymore > At-all > 'though' > speech act

(Rackowski 1998:19)

Adverbs 10-6 from the previous example (4), differ in that instead of being specifiers

<sup>2</sup> *Ve* is a question marker. *Matetika* 'generally' happens also clause initial and clause final. These positions are the result of movement of the pre-verbal FP containing it or the FP below it to Spec,AzaP or Spec, SpeechActP. This also explains the predicate final position for *aza* and *ve*. There is a post-verbal *matetika* that has a difference in meaning. For more detail see Rackowski (1998).

their AdvPs are extended projections of *v*, as shown below in (5).

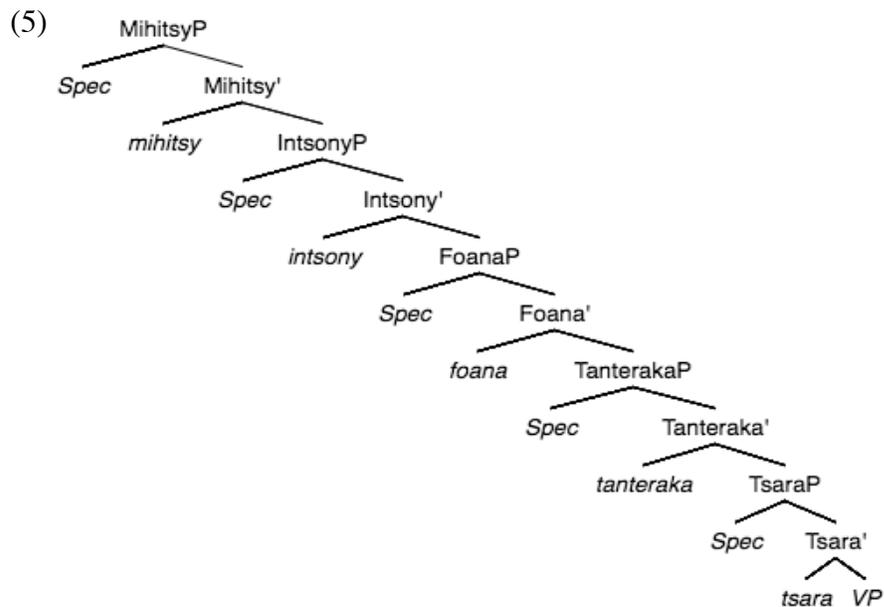


Figure 1 Malagasy post-verbal lower adverbs as extended projections of *v*. (Rackowski 1998:24)

Now the heads are full and block head movement forcing roll-up movement, i.e. XP movement, along the extended projection of *v*. So, the sentence in (6) would have the structure in (7).

- (6) 3 > VP > 10 > 9 > 8 > 7 > 6 > DP<sub>obj</sub> TOPIC  
 Tsy manasa tsara tanteraka foana intsony mihitsy ny lamba Rakoto  
 NEG wash well completely always anymore at all DET clothes Rakoto.  
 ‘Rakoto doesn’t always wash the clothes completely well at all anymore’.

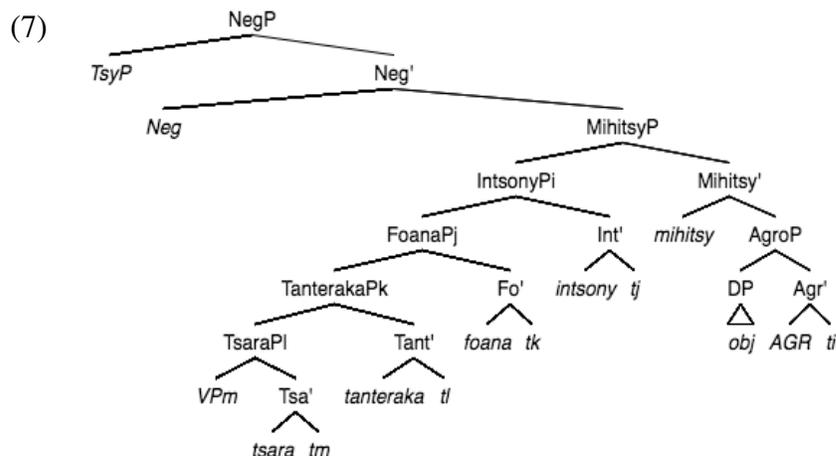


Figure 2 Surface structure of the adverbs in (6) after (roll-up) XP-movement.

(Rackowski 1998:27)

To summarize, AdvPs are in Spec, FPs, following a strict hierarchy and divide into two main groups, higher adverbs and lower adverbs. In Malagasy, the lower adverbs divide

again into two subgroups, pre- and post-verbal, the latter being projections of v obstructing head movement.

### 2.3 Malagasy Fact

As many other Austronesian languages, Malagasy is a topic prominent language with VOS order. The (subject)/topic's semantic role is marked by verb morphology. In two of the three voices (8), Theme Topic (TT) and Circumstantial Topic (CT), the agent is attached to the verb by a process called N-bonding making it ungrammatical to have any other element between them.<sup>3</sup>

- (8)
- Actor Topic (AT): agent (subject) topic
  - Theme Topic (TT): theme (subject) topic
  - Circumstantial Topic (CT): oblique (subject) topic

All three of the following sentences (9), (10), (11), have  $\sqrt{sasa}$  (as the verbroot), which appears with different morphology depending on the construction. Note how the prominent nominal (at the end of each sentence) is a different DP:

(9) **AT:** Manasa            ny    lamba      amin'ny    savony    ny    zazavavy.  
 AT.PRES.wash    DET   clothes    with'DET   soap      DET   girl  
 'The girl washes the clothes with the soap'

(10) **TT:** Sasan'ny                      zazavavy    amin'ny    savony    ny    lamba.  
 TT.PRES.wash-N'DET   girl            with'DET   soap      DET   clothes  
 'The girl washes the clothes with the soap'

(11) **CT:** Anasan'ny                      zazavavy    ny    lamba      ny    savony.  
 CT.PRES.wash-N'DET   girl            DET   clothes    DET   soap  
 'The girl washes the clothes with the soap'

Comparing the constructions given above, in (9) the verb and the following noun are independent, whereas in (10) and (11) the determiner of the agent is attached to the verb. For this to happen the verb must rise to the next head up. It is also the main verb that always inflects for tense and aspect, since in Malagasy there are no auxiliaries; hence the (main) verb always raises to T°.

### 3. The problem

Rackowski (1998) accounts for the apparent incongruity of the lower adverb order and Cinque's hierarchy. It has not been accounted yet why Malagasy's higher adverbs do not

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<sup>3</sup> In very specific cases the word order changes but this are not relevant for this paper. For N-bonding see Keenan 2000 and Travis 2006.



Such structure is problematic for Malagasy for two reasons, either the verb does not raise to T° to respect the word order or all lower adverbs follow the verb. As presented in section 2.2 Rackowski's divides the lower adverbs in: post-verbal, which follow the verb and pre-verbal, which precede the verb, ergo not all lower adverbs follow the verb. The examples below compare the same lower adverbs in Italian and Malagasy, both verb-raising languages. In Italian, all lower adverbs follow the inflected verb. The examples in (14) show this with the adverbs *già* 'already' and *sempre* 'always'. In Malagasy, the former one is a pre-verbal and the latter a post-verbal adverb. Such examples will follow as (15) and (16) respectively.<sup>4</sup>

- (14) a. Lui        sa        *già*        cosa        fare.  
           3SG.NOM know-3SG already    what        do
- b. \*/?Lui        *già*        sa        cosa        fare.  
           3SG.NOM already    know-3SG what        do  
           'He already knows what to do'
- c. Lui        sa        *sempre*    cosa        fare.  
           3SG.NOM know-3SG always    what        do  
           'He always knows what to do'
- d. \*Lui        *sempre*    sa        cosa        fare.  
           3SG.NOM always    know-3SG what        do  
           'He always knows what to do'
- e. Quando    si        presenta    un        problema    lui  
       When    3SG.REFLX present-3SG    DET-MASC problem    3SG.NOM  
       (sa)    *già*        (√)        *sempre*    (\*)    come        fare.  
           know-3SG already                    always        how        (do)act  
           'When a problem arises he already always has a solution'

Comparing the examples (14 b, d, e) it seems that Italian shows some flexibility around the adverb *già* 'already'. Some speakers accept the verb to follow this lower adverb, but none allows the verb to follow *sempre* 'always'. I believe that it is related to the hierarchy, i.e. the proximity of the adverb to TP, but there are other factors to consider.<sup>5</sup> I will leave this for future research and remark that in (14) all sentences in where the verb precedes the adverbs are grammatical.

Below, in (15) the adverb *efa* 'already' must precede the verb for the sentence to be grammatical, contrasting with the examples in (14) where it is ungrammatical for *già* 'already' to precede the verb. I will show how this is strict in all three voices: Actor Topic

<sup>4</sup> Since Malagasy doesn't have auxiliaries I avoided them in the Italian examples as well.

<sup>5</sup> First, Italian dialects may vary slightly in linear order. See Cinque (1999:147) for an example in how they differ on the heads where the participle is allowed. Second, certain adverbs have a focusing and/or parenthetical use which might affect the word order. The Italian adverb *già* 'already' is one of these. Third, in (14e) Cinque (1999:6), there is a context given and the meaning changes.

(AT), Theme Topic (TT) and Circumstantial Topic (CT).

- (15) a. \*Manasa efa ny lamba amin'ny savony ny zazavavy. (AT)  
 AT.PRES.an-wash already DET clothes with' DET soap DET girl
- b. \*Manasa ny lamba efa amin'ny savony ny zazavavy. (AT)
- c. \*Manasa ny lamba amin ny savony efa ny zazavavy. (AT)
- d. \*Manasa ny lamba amin'ny savony ny zazavavy efa. (AT)
- e. Efa manasa ny lamba amin'ny savony ny zazavavy. (AT)
- f. Efa sasan'ny zazavavy (\*) amin'nysavony (\*) ny lamba. (TT)  
 already TT.PRES.wash-N'DET girl with'DET soap DET clothes
- g. Efa anasan'ny zazavavy (\*) ny lamba (\*) ny savony. (CT)  
 already CT.PRES.wash-N'DET girl DET clothes DET soap
- 'The girl *already* washes the clothes with soap'

In Malagasy, the verb must follow the lower adverb *efa* 'already', but *foana* 'always' must precede the verb as shown below in (16).

- (16) a. \*Foana manasa ny lamba amin'ny savony ny zazavavy. (AT)  
 always AT.PRES.an-wash DET clothes with' DET soap DET girl
- b. Manasa foana ny lamba amin'ny savony ny zazavavy. (AT)
- c. Manasa ny lamba foana amin'ny savony ny zazavavy. (AT)
- d. Manasa ny lamba amin'ny savony foana ny zazavavy. (AT)
- e. \*Foana sasan'ny zazavavy amin'ny savony ny lamba. (TT)  
 always TT.PRES.wash-N'DET girl with'DET soap DET clothes
- f. Sasan'ny zazavavy foana amin'ny savony ny lamba. (TT)
- g. \*Foana anasan'ny zazavavy ny lamba ny savony. (CT)  
 always CT.PRES.wash-N'DET girl DET clothes DET soap
- h. Anasan'ny zazavavy foana ny lamba ny savony. (CT)
- i. Anasan'ny zazavavy ny lamba foana ny savony. (CT)
- 'The girl washes *always* the clothes with soap'

Besides inflecting for tense, in N-bonding, the verb is attached to the agent, (15 e-g) and (16e-i), which happens when the verb raises to T°. Therefore, in Malagasy the preverbal lower adverbs must be higher in the tree, and not below TP as expected. I believe they distribute as in the structure below in (17), where the AdvPs that are specifiers are in FPs above TP and only the ones that are extended projections of v remain below TP. This allows the verb to move to T°, receive the morphology and respects the adverbial distribution, where the preverbal adverbs precede and the post-verbal follow the verb.<sup>6</sup>

(17)



Figure 4 Proposed distribution the whole set of Malagasy lower adverbs. Shifted up the tree pre-verbal are specifiers in functional phrases above TP, Post-verbal are below TP as extended projections of v.

In conclusion, the lower adverbs in Malagasy follow the predicted hierarchy using Rackowski's account, but there is a mismatch between the predicted structure and the

<sup>6</sup> I believe that only a specific functional phrase, an EP (Event Phrase), immediately dominates vP, always. In its head are voice morphemes and it is here where N-Bonding happens. Nevertheless, I have omitted it from the trees in this paper. For more on this see Travis (2000) and Travis (2006).

Malagasy structure. Considering that the verb in Malagasy always goes to T°, the lower adverbs are then higher in the tree, and are not influenced in any way by the voice of the sentence.

### 3.2 The higher problem

The solution above in (17), raises a problem when it comes to placing the higher adverbs. In Malagasy, there are lower adverbs where the higher adverbs would be expected to be. A second issue arises when there are multiple higher adverbs, since they don't seem to have a fixed linear order as shown in (19). Neither of the structures above accounts for this violation of the hierarchy but the one shown in (18) does. In this section I will show that the lower adverbs have forced the higher adverbs up the tree, making them extra-clausal. Malagasy has neither auxiliaries, nor expletives, nevertheless for copular constructions it has a covert/ null BE, which makes these extra-clausal higher adverbs small syntactic structures of varied categorial heads that select full clauses.<sup>7</sup> Therefore the sentential scope of the higher adverbs is realized syntactically differently in the syntax. That they are not adverbs *per se* any more, accounts for the flexibility in word order, but as a consequence they are context dependent, which makes exact translations difficult. For example, in (19) the adverb *frankly* is expressed as *raha tsorina* 'to be honest', which literally means 'if simplified'.

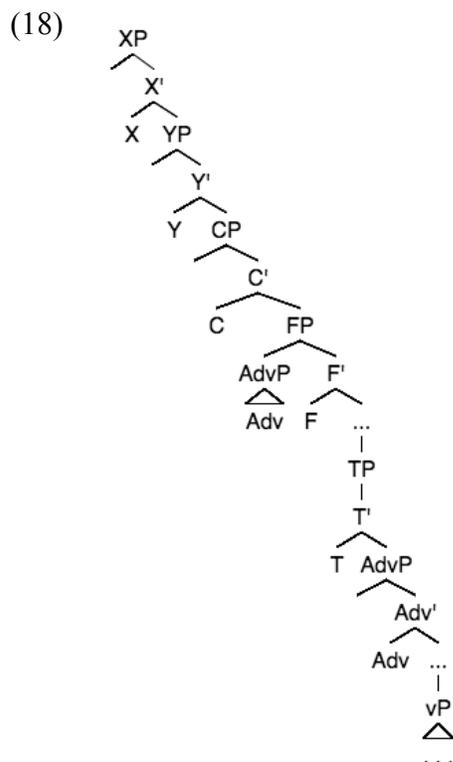


Figure 5 shows the higher adverbs that are syntactic structures of varied categorial heads as XP and YP where Y° selects the full clause that contains the lower adverbs.

<sup>7</sup> See Pearson (2005), The Malagasy Subject/Topic as an A'-Element and Paul (2000), Malagasy Clause Structure.

- (19) a. *Mazava fa tsy sasan'ny zazavavy foana amin'ny*  
*clear that* NEG TT.PRES.N'DET girl always with'DET  
 savony ny lamba.  
 soap DET clothes  
 'Clearly the girl doesn't always wash the clothes with the soap'
- b. *Raha tsorina tsy sasan'ny zazavavy foana amin'ny*  
*if simplified* NEG TT.PRES.N'DET girl always with'DET  
 savony ny lamba.  
 soap DET clothes  
 'Frankly the girl doesn't always wash the clothes with the soap'
- c. *Raha tsorina mazava dia tsy sasan'ny zazavavy*  
*if simplified clear* PRT NEG TT.PRES.N'DET girl  
 foana amin'ny savony ny lamba.  
 always with'DET soap DET clothes  
 'Frankly clearly the girl doesn't always wash the clothes with the soap'
- d. *Mazava ary raha tsorina dia tsy sasan'ny zazavavy*  
*clear CONJ if simplified* PRT NEG TT.PRES.N'DET girl  
 foana amin'ny savony ny lamba.  
 always with'DET soap DET clothes  
 \*'Clearly frankly the girl doesn't always wash the clothes with the soap'
- (20) a. *Mahagaga ary azo antoka fa tsy sasan'ny*  
*astounding CONJ -able surety that* NEG TT.PRES.N'DET  
 zazavavy foana amin'ny savony ny lamba.  
 girl always with'DET soap DET clothes  
 'Surprisingly surely the girl doesn't always wash the clothes with the soap'
- b. *Azo antoka fa ary mahagaga tsy sasan'ny zazavavy*  
*able surety that CONJ astounding* NEG TT.PRES.N'DET girl  
 foana amin'ny savony ny lamba.  
 always with'DET soap DET clothes  
 \*'Surely surprisingly the girl doesn't always wash the clothes with the soap'.

As Cinque predicts, in other languages, if any of the adverbs do not follow the hierarchy, the sentence is ungrammatical. The English sentences in (19c-d) and (20) show that a change in the linear order of adverbs makes the sentence ungrammatical, but in the same examples the Malagasy higher adverbs have changed in linear order maintaining grammaticality. In the examples (19c-d) this produces a slight change in meaning, whereas in (20) both sentences are equivalent. This type of sentences, with adjacent adverbs in English and Italian are rare, and even though grammatical, they sound unnatural. In Malagasy that is not the case, though for multiple higher adverb to co-occur, sometimes certain adjustments are required. In (19d) and (20) the sentential conjunction *ary* 'and' is





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