A note on the scope of adverbs in Malagasy*

Craig Thiersch
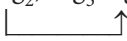U.Potsdam & U.Tilburg

1. Introduction

Inspired by Kayne's (1994) Antisymmetry hypothesis and Linear Correspondence Axiom (LCA), there have been over the last decade numerous analyses employing extensive Remnant Movement[1] (RM). While many of these are controversial, the RM analysis of Malagasy found in Pearson (2001) and Rackowski & Travis (2000) (R&T) in particular solves several outstanding puzzles of Malagasy syntax, although it does run into a possible problem with regard to the proper placement of arguments and adverbials, discussed in Thiersch (2004). Nevertheless, this approach to Malagasy seems promising, and confronted with apparent counterexamples to the analysis, one would like to see if they bear up under scrutiny. A welcome result would be that under a proper analysis, the approach actually predicts the judgments in question.

This paper proceeds as follows. We give a brief summary of Malagasy syntax and the Remnant Movement approach, and give by way of motivation three sample problems which this analysis explains. We then discuss an alleged counterexample, which turns out to be a problem for languages other than Malagasy as well, and show that under the correct analysis it is in fact consistent with R&T's analysis.

2. The basics: The Malagasy voicing system

Roughly, Malagasy is a verb initial language (although there are constructions in which certain "fronted" constituents may precede the verb). It is sometimes cited as being typologically VOS, but this oversimplifies what is really going on. Basically the arguments line up following the verb, and depending on the

voice of the verb, one of them is "promoted" to the rightmost position. Schematically,

(1) V_{voice2} arg$_1$ (arg$_2$) arg$_3$ arg$_2$

That is, if the verb is in "second" voice, the second argument appears to the right.[2] Terminology differs, but due to their idiosyncratic behavior, like Case assignment, Pearson (2001) refers to the five voices as Nominative, Accusative, Dative, Transitive, Circumstantial. For example [his (65), Chap.2. NOMP = Nominative Pivot Voice, etc.]:

(2) a. *Mamono* akoho amin'ny antsy ny mpamboly
        NOMP.kill chicken with-DET knife DET farmer
        'The farmer kills chickens with the knife'
    b. *Vonoin*'ny   mpamboly amin'ny antsy ny akoho
        ACCP.kill-DET farmer   with-DET knife DET chicken
        'The chickens are killed by the farmer with the knife'
        or 'The chickens, the farmer is killing (them) with the knife'
    c. *Amonoan*'ny mpamboly akoho ny antsy
        CRCP.kill-DET farmer   chicken DET knife
        'The knife is being used by the farmer to kill chickens'
        or 'The knife, the farmer is killing chickens (with it)'

The voicing system has sometimes been compared with Indo-European passive, and the right-most argument called the subject, but the construction has rather different properties, as can be seen in the example above, for example, the non-promoted semantic subject does not become a *chômer* in a PP, but remains, presumably *in situ*. Earlier analyses often assumed that the structure was right branching; cf. Guilfoyle, Hung & Travis (1992). That is, the external argument moved up to a right-hand specifier position, roughly as in (3):

(3) [$_{IP}$ [$_{VP''}$ [$_{VP'}$ [$_{VP}$ V DP$_i$] e$_j$] DP$_k$ DP$_j$]

Pearson (and R&T) argue that this is not the case, but that the basic structure is consistently Spec-Head-Comp, as in Kayne's antisymmetry proposal, and that the external argument has moved up to the *left*, and a constituent containing the verb with the remaining arguments (and some adjuncts) has then moved leftward around the externalized argument. Schematically, the sentence in (2b) would have a structure roughly like

(4)   [Vonoin'ny   mpamboly e_i amin'ny antsy]$_j$ [[ny akoho]$_i$ e_j]
      ACCP.kill-DET farmer   *e.c.* with-DET knife   DET chicken *e.c.*

(5)   Derivation:
      a.   [$_{PivP}$ ny akoho$_i$ [$_{Piv'}$ Piv^0 [$_{TP}$ vonoin'ny … e_i …]]]
      b.   [$_{TopP}$ [$_{TP}$ vonoin'ny … e_i …] [$_{Top'}$ Top^0 [$_{PivP}$ ny akoho$_i$ [$_{Piv'}$ Piv^0 e_{TP}]]]]

This is grossly over-simplified and ignores the functional categories as well as the considerable difference in hypothesized nodes between, say, Pearson and R&T, but captures the spirit of the analyses under consideration. Pearson in particular motivates a number of functional categories and hence movements, as he deals with more constructions than R&T.

   We briefly summarize in the following sections how this type of analysis accounts for some empirical observations, indicating that the RM approach is on the right track, before turning to the problem of adverb scope.

3. Some empirical problems solved

3.1 Focus "extraction"

Various focus and topic particles can allow an element to be "extracted" to the left, but as has long been noted in the literature, this can in general only be the constituent which would have been "externalized" to the rightmost position according to the voice of the verb.[3] E.g., [Pearson (2001), Ch.2 (36)]:

(6)   a. *Ny akoho no *namono*   tamin'ny   antsy ny mpamboly
         DET chicken FOC PST-NOMP.kill PST-with-DET knife DET farmer
         'It's the chicken that the farmer killed with the knife'
      b.   Ny akoho no *novonoin*'ny   mpamboly tamin'ny   antsy
         DET chicken FOC PST-ACCP.kill-DET farmer   PST-with-DET knife
      c. *Ny akoho no *namonoan*'ny   mpamboly ny antsy
         DET chicken FOC PST-CRCP.kill-DET farmer   DET knife

This is surprising under the Guilfoyle, Hung & Travis analysis, as one generally expects objects to be more easily extractable than subjects; cf. Sabel (2003) for discussion and an alternative to the RM analysis. In a structure like (4), however, the external object is on the main rightward projection line with no barrier-like categories in between, whereas the other arguments are embedded in the fronted TP/VP, i.e. a complex specifier and presumably an island (a point to which we return below).

3.2   Placement of discourse markers

Pearson discusses another phenomenon (noted in passing in R&T), namely that various discourse markers come in peculiar places and don't seem to have any particular pattern. For example, the yes/no question marker *ve* appears in the penultimate position (left of the externalized argument) in ordinary sentences, but in the second position (between the fronted DP and the particle *no*) in focus sentences [his Chap.2: (14a) & Chap.4: (102a)]:

(7) a. Vonoin'ny   mpamboly amin'ny antsy ve ny akoho?
         ACCP.kill-DET farmer   with-DET knife QU DET chicken
         'The chickens, is the farmer killing (them) with the knife?'
     b. I   Bakoly ve no   manapaka bozaka?
         DET Bakoly QU FOC NOMP.cut   grass
         'Is it Bakoly who is cutting the grass?'

Pearson, following Paul (2001), points out that we only need to assume that *ve* is a second-position functional category which raises the specifier of its complement in order to account for these facts: in (7a) the whole TP/IP is raised, leaving the externalized argument to the right of *ve*; in (7b), however, only the focused DP is raised (see the structure in footnote 3).

3.3   Adverb order

Finally we come to one of the phenomena which forms the centerpiece of the R&T article, namely the order of adverbials. The basic assumption is the universal order of adverbials related to a hypothesized universal hierarchy of functional projections proposed in Cinque (1999). Language specific deviations were to be accounted for, as usual, by language particular properties. As previously discussed (with a similar analysis) by Rackowski (1998), the order of adverbials in Malagasy deviates from the proposed universal order in a surprising way; aside from some minor peculiarities, the pre-verbal adverbs mimic the Cinque order, whereas the post-verbal adverbs are in the mirror-image order:[4]

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

b. Malagasy order:

?	2	3	4	5	(3)	V	10
Na(dia) >	Matetika >	Tsy >	Efa >	Mbola >	Tsy >	(Verb) >	Tsara
Even	> generally >	Neg >	Already >	Still >	Neg >	Verb >	Well

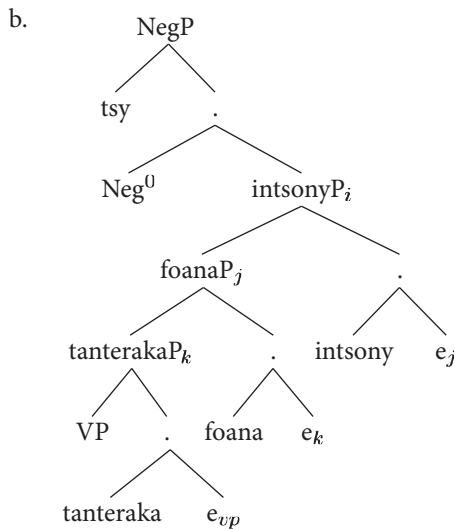| 9	8	7	6	?	1
> Tanteraka >	Foana >	Intsony >	Mihitsy >	Aza >	Ve
> Completely >	Always >	Anymore >	At-all >	though >	Speech Act

This immediately suggests a "roll-up" operation like the operation proposed in Koopman & Szabolci (2000) to reverse the order of Hungarian verbs. The language particular stipulation which R&T make is that the upper adverbs (up to and including *tsy* 'Neg') are generated in Spec of their functional projections; the lower adverbs (6–10) generated as heads of their projections.[5] Their suggested derivation works as follows:

(9) a. Repeated movement to Spec,Adv$_x$P (roll-up) reverses the order;
   b. a blocking trigger (e.g., an element in Spec,NegP) stops the roll-up; and
   c. the external argument (subject) is extracted and a high resulting constituent (e.g., TP) is moved to a projection above it.

The tree in (10b) [next page] illustrates (9a–b); step (9c) was illustrated in (5a) and (5b) for (4), a sentence without adverbs.[6]

   While one can quibble with many of the details and assumptions, including the problem of DP placement discussed in Thiersch (2004), the capturing of these three phenomena (other arguments are given in Pearson and R&T) seems sufficient motivation to question an apparent counterexample.

(10) a. Tsy manasa tanteraka foana intsony ny lamba Rakoto
        not wash   completely always anymore the clothes Rakoto
        'Rakoto doesn't always wash the clothes completely anymore.'
                    [simplified, after R&T's (12)–(13), p.122]

b.

$$
\begin{array}{c}
\text{NegP} \\
\diagdown \\
\text{tsy} \qquad . \\
\diagdown \\
\text{Neg}^0 \qquad \text{intsonyP}_i
\end{array}
$$

```
b.          NegP
           /    \
        tsy      .
               /   \
            Neg⁰    intsonyPᵢ
                   /        \
              foanaPⱼ        .
             /      \       /   \
      tanterakaPₖ    .  intsony  eⱼ
         /    \     /  \
       VP      . foana  eₖ
      /  \
  tanteraka  e_vp
```

4.   An adverb scope problem

There has been a controversy in the literature as to whether the Cinque approach to adverb ordering, deriving it from an underlying hierarchy, is essentially correct or whether the orderings can be derived from semantic and discourse factors, an approach advocated by Ernst (2002). While adjucating this dispute is beyond the scope of this article, we would like to comment on an illustrative Malagasy example.

   Of course the motivation to replace arbitrary hierarchies of feature projections with semantic motiviation is clear. However, this fails to account for the well-known facts about adjective order discussed in Scott (2002), namely, that even though an alternative order may be acceptable with a different meaning under a focus intonation, it is clearly marked, in the same sense that German scrambled DPs are marked. Cf. Scott's examples like

(11)   a.   an alleged English baron vs.
       b.   #an **English** alleged baron

— to say nothing of orders which are virtually impossible (*a red, large house). There are of course some languages in which the order of adjectives is freeer and others which are more rigid.

   It seems not unreasonable to assume that the same holds for adverbs. At the end of Kaufman (2004), which deals mostly with the relatively free word

order language Tagalog, he turns briefly to Malagasy, and notes that, R&T notwithstanding, there appear to be alternative scopings, giving the following example [his (78); AV = active voice, i.e., Nominative].

(12) Efa   avy   mi-sakafo foana Rasoa vao   tonga aho
      already come AV-eat   always Rasoa before arrive 1s.SUB
      'Rasoa is always already finished eating before I arrive'

He notes that *foana* takes scope over *efa* here, contrary to what R&T would predict.

(13) Under an intraposition analysis of (78) [i.e. (12) — ct] where adverbs have
      syntactically specified base positions, the second adverb *foana* 'always'
      is never in a position to c-command *efa* 'already'. […] Under a more
      symmetric analysis, if scope is determined strictly by c-command relations
      and the subject is in a right branching specifier (as in MacLaughlin 1995,
      Guilfoyle, Hung and Travis 1992) then *foana* may be adjoined above *efa*
      and below the subject.

But it is not clear without a structure whether this contradicts R&T's approach, forcing us to return to the G/H/T analysis.

The example has several odd properties. In (12) *Rasoa* appears at first glance to be the syntactic subject of *misakafo* 'eat', as shown by the active voice, whereas in the English translation, *Rasoa* is the syntactic subject of "is finished", possibly coindexed with an empty category representing the subject of "eating". The crucial question is what the word *avy*, glossed as 'come', is doing in the sentence, and what precisely its syntax is. It would seem to be a deverbal adverb or completive marker of some sort, derived diacronically from a homophonic verb "to come from" (which takes voice).[7] In this example it apparently modifies the meaning of the verb, in which case, it is perfectly plausible that *efa* could in turn modify it, and the structure might be something like

(14) a. [Efa avy] mi-sakafo foana Rasoa vao tonga aho *or*
      b. [Efa [avy mi-sakafo]] foana Rasoa vao tonga aho

in which case *foana* could indeed C-command the phrase *efa avy* and hence *efa* at the appropriate stage of even a R&T style derivation.

Before exploring our options in Malagasy, we note that there seems to be an additional problem with the part of the Cinque hierarchy related to (12). According to the "straight" order of the hierarchy given at the end of Cinque's Chap.4 [(92) p.106] the relevant portion is

(15)   … already > no longer > still > always …

as in

(16)   a.   Roddick *already* [always wins matches against Eltingh].
       b. *Roddick always [*already* wins matches against Eltingh].

But the opposite order appears not only in the Malagasy example, but also in the English translation (repeated here), which is grammatical:

(17)   Rasoa is always already finished eating (before I arrive)

Note that this is not due to there being two predicates (i.e., "finished" and "eating") instead of one; the same order can occur in a sentence with one predicate, e.g.

(18)   Kiki is always already asleep (when I arrive)

It seems that there are at least two positions for *already*, since the following sentence, though ungainly, is grammatical and has a perfectly logical interpretation (Freddy is a child who used to sleep late but finally no longer does):

(19)   Freddy is already always already awake (when I arrive).

The question then arises as to whether there are also two positions for *always*. The answer seems to be negative:

(20) *Sam is always already always winning at poker / DP / PP

In addition, note the examples with the reversed order of the adverbs (and two positions for *always*) are all copular sentences, a point to which we return below; cf.

(21)   a.   K. already always sleeps too long.
       b. *K. always already sleeps too long.

This suggests that second "already" is within the AP/PP etc.:

(22)   a.   Kiki is always [$_{\text{AdjP}}$ already asleep] (when I arrive)
       b.   Freddy is already [$_{\text{AdjP}}$ always already finished] (when I arrive).

perhaps indicating a structure of

(23)   Freddy is already [always [already awake] (when I arrive)].

Unfortunately, topicalized sentences don't provide a definitive test, as the "always" can move with the AP, which is possible, given Cinque's concentric projections:[8]

(24) a. Already asleep, Kiki always is.
       b. Always (already) awake when I arrive, Freddy already is.
       c. *cf.* Always alert, he really isn't

Reversed pseudo-clefts, however, seems to provide a contrast indicating that "always" belongs to the higher constituent:

(25) a. Already asleep is what Freddy is when I arrive.
       b. *? Always already asleep is what Freddy is when I arrive.
       c. Already asleep is what Freddy always is when I arrive.
       d. *? Always already asleep is what Freddy is when I arrive.
       e. *? Already asleep when I arrive is what Freddy (always) is.

Presumably this is due to the referentiality of "what" — it can apparently refer to an AP but not an AdvP or VP (the lable depending on how one refers to the concentric adverbial structures):

(26) a. [What Fred is] is unusually tall.
       b. *? [What Fred is] is constantly going to the movies.

This would tend to support the structure in (22).[9]

    We note that the translations of (17) into, for example, German and Dutch, have yet a different structure, but they are copular sentences, and the element corresponding to *avy* is a predicate adjective, similarly to the participle *finished* in English:[10]

(27) a. Rasoa ist immer schon fertig mit (dem) Essen …
       b. Rasoa is altijd al klaar met eten …

What does this mean for the analysis of the Malagasy example? The above reasoning would indicate that *efa* not only modifies *avy*, but *avy* may be a predicate taking the "clause" containing *misakafo* as its argument. Indeed, one speaker (Hanitry Ny Al-Gerull) spontaneously suggested that it "intuitively felt like" an auxiliary verb. Let us examine one plausible hypothetical analysis where this is the case to show that *foana* would command the phrase containing *efa* at the relevant stage of the derivation.

    A real possibility is that the sentence is, like English, Dutch and German, also a copular construction. Malagasy has a null copula, as we can see in normal copular constructions, as well as in the proposed analysis for clefts in Pearson (2001) (cf. also the structure in footnote 3) [his (123), Chap.3]:

(28) a. [_PredP_ Mpianatra] [_DP_ ny   rahalahiko]
              student   DET brother-1s
           'My brother (is) a student'

b. $[_{PredP}$ Mpianatra] $[_{WhP}$ Op$_i$ no   namaky t$_i$ ny   boky]
        student   FOC PST-read   DET book
    'It's a student who was reading the book'
    lit. (The one who) was reading the book (is) a student

Hence if the real structure of (28a) is (29), then a possible analysis for (12) might be something like (30):

(29) a. *"Base"*: … $[_{CopP}$ $[_{DP}$ ny rahalahiko] [COP $[_{PredP}$ mpianatra]]]
      b. *"Derived"*: $[[_{CopP_i}$ e$_j$ [COP $[_{PredP}$ mpianatra]] $[_{DP_j}$ ny rahalahiko] e$_i$]]

(30) $[_{CopP}$ e$_j$ [COP $[_{PredP}$ Efa avy [mi-sakafo e$_j$]] foana]$_i$ Rasoa$_j$ e$_i$]

(omitting the labels for TopP and PivP in (29), and the "derivation" in (30) for simplicity; we give a complete derivation below). That is, *efa avy* takes the clause indicating that Rasoa is eating as its argument — making the derivation of *avy* from the verb 'to come' less mysterious: rephrased, "With respect to Rasoa, it has already come to pass that R. eats." While the predicates in (28) are the single word DP *mpianatra*, it seems plausible that a predicate could have a complement (just as it does in English, German, and Dutch).

        Hence one has a bi-clausal structure, and a hypothetical derivation might proceed as follows.[11] Beginning with the "embedded clause", let us assume the full derivation externalizing *Rasoa* — or the empty category to be coindexed with *Rasoa* (see below) — and moving the verbal remnant up has already taken place, so we have the following:

(31) The embedded clause:
      a. misakafo Rasoa
      b. *Structure:* $[_{TopP}$ $[_{TP}$ e$_i$ misakafo]$_j$ $[_{PivP}$ Rasoa$_i$ e$_j$]]

This clause is then an argument of the predicate *avy*; this is then merged with the adverb *efa*:

(32) *Two more merges:*
      a. $[_{PredP}$ avy [misakafo Rasoa]] →
      b. $[_{AdvP}e$ efa $[_{PredP}$ avy [misakafo Rasoa]]]

Since *efa* is an "outer"-class adverb modifying *avy*, there is, by R&T's hypothesis, no inversion with *efa*. This is merged with the (phonetically null) copula COP and then again with the adverb *foana*, "internal" to the COP projection, but C-commanding the rest of the structure:[12]

(33)   *After merging with Cop^0 and with the adverb* foana:
[$_{AdvPf}$ foana [$_{CopP}$ Rasoa$_i$ Cop^0 [$_{AdvPe}$ efa [$_{PredP}$ avy [misakafo e_i]]]]]

But since *foana* is of the "inner" class, by the R&T hypothesis, the complement of *foana*, CopP, moves into its specifier, giving:

(34)   *Inversion (move CopP to Spec,AdvP):*
[$_{AdvPf}$ [$_{CopP}$ Rasoa$_i$ Cop^0 [$_{AdvPe}$ efa [$_{PredP}$ avy [misakafo e_i]]]] [$_{AdvPf}$ foana e_{CopP}]]

Again, in the *topmost* clause, the one for CopP, there must also be an external argument position (Spec,EaP), and Rasoa extracts to it, and the remnant structure can be preposed to Spec,TopP, just as in (31b), but now with all of the rest of the sentence:[13]

(35)   *"Externalization" of* Rasoa *& fronting of CopP:*
a.   [$_{PivP}$ Rasoa$_i$ [$_{PivP}$ Piv^0 [$_{AdvPf}$ [$_{CopP}$ e_i [$_{CopP}$ Cop^0 [$_{AdvPe}$ efa [$_{PredP}$ avy [misakafo e_i]]]]] [$_{AdvPf}$ foana e_{CopP}]]]]
b.   [$_{TopP}$ [$_{AdvPf}$ [$_{CopP}$ e_i [$_{CopP}$ Cop^0 [$_{AdvPe}$ efa [$_{PredP}$ avy [misakafo e_i]]]]] [$_{AdvPf}$ foana e_{CopP}]] [$_{TopP}$ Top^0 [$_{PivP}$ Rasoa$_i$ [$_{PivP}$ Piv^0 e_{AdvPf}]]]]

Note that it would seem at first glance that *Rasoa* could not be extracted directly from the subject position of COP, since at the point in the derivation in which it is merged with Piv^0, it is in a (specifier) island. However, to capture the distinction between possible and impossible extraction from specifier position, R&T need to rely on Rackowski (1998)'s distinction between segments and categories; see Thiersch (2004) for discussion. The same applies here, as shown by the tree in (35a) under their assumptions, *Rasoa* can move from the bottom position under *misakafo* which is on a right-branch to Spec,CopP; in CopP it is only dominated by a *segment* and hence can extract to Spec,PivP.

   What perhaps seems peculiar from an Indo-European viewpoint is the finiteness of the embedded clause. However, this construction occurs in elsewhere Malagasy in non-copular "control" constructions which parallel the structure given for (12), e.g. Pearson (2001), example (70), p.49:

(36)   a.   Kasain-dRasoa   hosasana   ny zaza
             ACCP.intend-Rasoa IRR-DATP.wash DET child
             'The child, Rasoa intends to wash (him)'
       b.   [$_{PredP}$ Kasain-dRasoa$_i$ [$_{CP}$ hosasana t$_i$ t$_j$]] ny zaza$_j$

Here *zaza* 'child' is the "externalized argument" of both predicates: *kasain* 'intend' and *hosasana* 'wash', indicating that the empty category coindexed to

Rasoa is in an (internal) subject position, hence Pearson assumes t_i is PRO. Since *zaza* is an externalized argument of *both* predicates, it must also be coindexed with an empty category in the lower clause. These constructions have different characteristics from European control and raising constructions, and have been much discussed in the Malagasy literature: see Law (1995) for a coindexing approach and Polinsky & Potsdam (2004) for a control approach. Note that whichever approach turns out to be correct, it is orthogonal to the subject of this article: although the verb *misakafo* licenses the subject *Rasoa*, it is otherwise irrelevant to the discussion if the approach above is correct, as neither adverb modifies it.

Note finally that not only does *foana* c-command *efa* at the point where it is introduced into the structure under the R&T analysis (33), it in fact also M-commands *efa* in the structure at the final step of the derivation, so wherever we interpret scope, *foana* is above the phrase containing *efa*. Hence this example is not a contradiction to R&T's analysis, but rather the occuring scope is predicted by R&T, when one takes the additional structure introduced by *avy* into consideration.

5.   Postscript

Since the original version of this article was submitted, some additional relevant observations have surfaced. Firstly, we note that this phenomenon is not limited to copular sentences. Edmund Pohl (p.c.) notes that past participles with HAVE also take *already* in their projection, allowing the reversed order.

(37)   a.   Am zweitenWeihnachtstag habe ich immer schon/bereits so viele
            Kekse gegessen, dass ich nichts mehr runterkriege.
       b.   On Boxing Day I've always already eaten so many cookies that I can't
            get any more down.
            [my translation of his German example shows the same order]

An anonymous reviewer also notes that the reverse order is allowed with certain main verbs:

(38)   I always already miss them when having been away from home for one
       single day [*One of reviewer's 3 examples from a Google search*]

The reviewer's hypothesis that stativity allows lower *always* seems to me to be essentially correct: participle, adjective, progressive gerunds (39), stative verbs (40), but not active verbs (41):

(39)   When I arrive, he's always already cooking dinner.

(40)   Rice always already knows the policies before the President announces them.

(41)   a.   *Rice always already announces the polices before the President does.
       b.   Rice already always announces the polices before the President does.

While this is consistent with the preceding analysis of the Malagasy example in question as a copular construction, it raises serious questions about (i) the place of *already* in the Cinque hierarchy and (ii) whether the neat division of adverbs into two classes suggested by R&T's analysis can be maintained. Nilsen (2004) suggests a different criterion for ordering adverbs, and has relevant examples showing that the ordering is neither total nor transitive. With regard to *already*, for example, we can see it is not ordered with respect to *allegedly*, as opposed to its mirror image *not yet* [his (18)–(19)]:

(42)   a.   In Wall Street, Enron was already allegedly going bankrupt.
       b.   In Wall Street, Enron was allegedly already going bankrupt.

(43)   a. ?? (In Wall Street,) Enron was not yet allegedly going bankrupt.
       b.   In Wall Street, Enron was allegedly not yet going bankrupt.

My suspicion is that the unmarked position for *already* is the lower one, and the upper one is allowed because *always* makes an action verb a stative characteristic. In this case the two adverbs need not be in separate projections. We are currently testing single predicate sentences with Malagasy informants.

6.   Conclusion

While this analysis is, of course, also consistent with the G/H/T structure, so that it doesn't form an argument *for* the remnant movement approach, the example in question is not a counterexample to the R&T–Pearson approach, under the analysis as a copular sentence. While this is plausible analysis for sentences with the participle *avy*, we have raised in the Postscript the general question as to whether its position in the Cinque hierarchy (as originally formulated) is correct. Needless to say, the properties of *already* will need to be further investigated cross-linguistically.

Notes

1. The analyses discussed here involve RM II as opposed to RM I, following the terminology of Müller (2002); e.g.,

(i)   RM I: $[_{VP} \, e_i \, \text{erschossen}]_j$ hat er [Bin Ladin]$_i$ schon gestern e_j
(ii) RM II: John [reads $e_i]_j$ $[_{FP}$ [no novels]$_i$ $e_j]$ [cf. Kayne (1998)]

Although formally identical, in that they involve displacing a constituent α from which some element β has been extracted so that the antecedent, β, no longer C-commands its trace in α, they tend to have different characteristics (see Müller 2002).

2. Note this is not deterministic for some "oblique" voices. See discussion in Ala-Gerull (2004a) of the variation in choice of argument with the Circumstantial Voice.

3. We ignore certain problematical examples in which an adverb can be focused; e.g.,

(i)   Omaly   no nadraraka e_i rano (ny voikazo) Rasoa$_i$
      yesterday *no* water.NOM.PRT   water the flowers   R.
      'It's yesterday that Rasoa watered the flowers'

Cf. Ala-Gerull (2004b); example after her (25d), my English gloss and translation. Pearson, following Paul (1999), analyses them as clefts involving an empty operator: $[_{PredP} \, \text{Wh/Foc}_i]$ $[_{WhP} \, \text{Op}_i \, no \, [_{PivP} \, t_i \, [_{TP} \, \text{V} \ldots t_i \ldots]]]_i$ (his Ch.3 (122b)), a point to which we return below.

4. NB: The list in (8b) is, like Cinque's order, subject to exceptions which need to be explained by language particular analyses. For exampe, *Pre*-verbal adverbs can sometimes occur in variable positions with different meaning due to scope: e.g., "*Tsy mbola* corresponds to 'not yet', while *mbola tsy* means 'still not.'" Rackowski (1998), p.10. They can also appear *after* the external argument ("Nachfeld"). See also discussion below.

5. We take this assumption as a given for the purposes of this article, as our interest lies in the problems associated with the scope of the adverbs. While it would seem that the adverbs ought to fall naturally into two classes, there is a potential problem with this; see § 5 below. As to using the presence of the adverb in the specifier to block roll-up and alternatives, see discussion in Thiersch (2004), especially the expanded version.

6. Note that the tree in (10b) doesn't involve remnant movement until we consider the DP arguments, which must be extracted to yield the proper word order.

7. Cf. a traditional definition (English translations added):

   Avy p. [participle] et vn. [intransitive verb] Venant [coming], qui vient [who comes], arrivant [arriving], qui arrive [who arrives], qui descend de [who is

> descended from], […] Avy nandro izy. Il vient de prendre un bain [He has already bathed]. […] [Abinal et Malzac, S.J. 1987. *Dictionnaire Malgache-Francais*. 1.ed.: 1888. Fianarantsoa. p. 67]

Thanks to Hanitry Ny Ala-Gerull for providing this information. Note that this definition regards this particular usage of *avy* as a participle; this is the position taken in this article — if it were the verbal *avy* it would bear voice morphology. Cinque (2000a/b) suggests that such elements (*avy*) might be restructuring verbs in the functional heads, and while this might be an interesting avenue of approach, here the absence of any verbal morphology would seem to be a problem. See also the discussion in § 5.

8. I assume the mysterious reversal of the order of adverb and copula in these examples is due to phonological stress, but should be investigated.

9. Cinque (2000b) suggests that true clefts are not always a good test for constituency, due to the problems with Null Complement Anaphora which he assumes for sentences like "It's just to talk to-you about these problems that he'll come Δ" [translation of his (97)] Such considerations would not seem to apply to these pseudo-clefts as there is a WH-trace rather than an anaphoric gap.

10. There are other cases of alternate order besides the copular construction; see § 5.

11. The structures are simplified to make them legible, although one has to try to judiciously combine R&T's approach with Pearson, as neither one cover the full set of operations and structures necessary.

12. We return to the issue of whether *Rasoa* is moved to Spec,CopP or coindexed with an empty category directly below.

13. As noted earlier, I've simplified the structure, abstracting away from various versions of the categories and projections in Pearson's dissertation and elsewhere, using just two projections, EaP and TopP.

References

Ala-Gerull, Hanitry Ny (2004a) 'Das zirkumstanzielle Voice'. Lecture and handout, Feb. 10, 2004, ZAS, Berlin.

—— (2004b) 'Zur Frage der Argumenthaftigkeit im Madagassischen'. Lecture and handout, Feb. 12, 2004, ZAS, Berlin.

Cinque, Gugliemo (1999) *Adverbs and functional heads; a cross linguistic perspective.* Oxford U. Press, NY.

—— (2002a) 'The interaction of passive, causative, and "restructuring" in Romance'. In C. Tortora (ed.) *The Syntax of Italian Dialects.* Oxford University Press, New York, 50–66.

—— (2002b) 'Restructuring and functional structure'. Draft: http://ling.auf.net/ling-Buzz/000011

Ernst, Thomas B. (2002) *The syntax of adjuncts*. Cambridge University Press, Cambridge.

Guilfoyle, Eithne, Henrietta Hung & Lisa Travis (1992) 'Spec of IP and spec of VP: two sub-jects in Austronesian languages'. *Natural Language and Linguistic Theory* 10, 375–414.

Kaufman, Daniel (2004) 'Rigidity versus relativity in adverbial syntax'. Draft of expanded version of 2004 AFLA Berlin lecture; to be published in a volume edited by Hans-Martin Gärtner. Mouton de Gruyter, Berlin.

Kayne, Richard (1994) *The antisymmetry of syntax*. MIT Press, Cambridge, MA.

—— (1998) 'Overt vs. Covert Movement'. *Syntax* 1, 128–191.

Koopman, Hilda & Anna Szabolcsi (2000) *Verbal complexes*. Current studies in linguistics 34. MIT Press, Cambridge, MA.

Law, Paul (1995) 'On grammatical relations in Malagasy control structures'. In Clifford S Burgess, Katarzyna Dziwirek and Donna B. Gerdts (eds.) *Grammatical relations: theoretical approaches to empirical questions*. CSLI, Stanford.

Müller, Gereon (2002) 'Two types of Remnant Movement'. In Artemis Alexiadou, *et al. Dimensions of Movement. From Features to Remnants* (Proceedings of the 1999 Potsdam Workshop on Remnant Movement.) John Benjamins, Amsterdam/Philadelphia.

Nilsen, Øystein (2004) 'Domains' for Adverbs'. *Lingua* 114, 809–47. Draft: http://ling.auf.net/linBuzz/000026.

Paul, Ileana (1999) *Malagasy clause structure*. Ph.D. dissertation, McGill University.

—— (2001) '*Ve* as a second-position clitic'. *Oceanic Linguistics* 40, 135–142.

Pearson, Matt (2001) *The clause structure of Malagasy: a minimalist approach*. Ph.D. dissertation, UCLA.

Polinsky, Maria & Eric Potsdam (2004) 'Malagasy Control and Its Theoretical Implications'. BLS 30. Draft: http://ling.ucsd.edu/~polinsky/pubs/final%20paper.pdf.

Rackowski, Andrea (1998) 'Malagasy Adverbs'. In I. Paul (ed.) *The structure of Malagasy*, v.II. *UCLA Working Papers in Linguistics*.

Rackowski, Andrea & Lisa Travis (2000) 'V-initial languages: X or XP movement and adverbial placement'. In Andrew Carnie & Ethne Guilefoyle (eds.), *The syntax of verb-initial languages*, 117–141. Oxford University Press, Oxford.

Sabel, Joachim (2003) '*Wh*-questions and extraction asymmetries'. Proceedings of the 8th Conference of the Austronesian Formal Linguistics Association (AFLA VIII). Norvin Richards & Andrea Rackowski (eds.), *MIT Working Papers in Linguistics 44*, Dept. of Linguistics, MIT, Cambridge, MA, 304–319.

Scott, Gary-John (2002) 'Stacked adjectival modification and the structure of nominal phrases'. In Guglielmo Cinque (ed.) *Functional structure in DP and IP*. Oxford University Press, New York.

Thiersch, Craig (2004) 'Two systems of "Remnant Movement II" and extraction from Specifier position'. In P. Law, (ed.), Proceedings of AFLA 11, ZAS, Berlin, 2004. Expanded version submitted to a volume edited by Hans-Martin Gärtner. Mouton de Gruyter, Berlin; cf. http://let.uvt.nl/general/people/thiersch/afla rev.pdf.