Some Remarks on Austronesian Clause Structure: Implications from Malagasy Control Complements

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1 Introduction: The status of the external argument

Many Austronesian languages favor just one syntactic argument (external argument, EA) in extractions and clause linkage. What is the status of this argument, and the general clausal architecture in Austronesian?

Malagasy (the external argument is underlined)
(1) a. nividy kadoa   <u>ny   zaza</u>
       bought gift   DET child
       '<u>The child</u> bought a gift.'
    b. ny zaza   (izay) nividy   kadoa
       DET child REL bought   gift
       'the child that bought a gift'
    c. *ny kadoa (izay) nividy   ny   zaza
       DET gift   REL bought DET child
       ('the gift that the child bought.')

Two main hypotheses concerning the status of the external argument:
SUBJECT ANALYSIS: EA is subject, occurring in an A-position
TOPIC ANALYSIS: EA is topic, occurring in an A'-position

Goal of the talk:
- present new evidence from Malagasy Control structures in support of the Topic Analysis

Outline of the talk
- overview of Malagasy structure and preliminary evidence in support of the Topic Analysis
- two Malagasy Control structures and Control as movement
- Theme Focus Control and its implications for Malagasy clause structure
- Agent Focus Control and its implications for Malagasy clause structure
- Control complement clauses in Malagasy and the Topic Analysis
- conclusions and open questions

2 Malagasy: General information

2.1 Basics of Malagasy morphosyntax

Austronesian language, spoken by about 14 million people in Madagascar
VOS word order, accusative, impoverished case marking

(2) a. n-i-vidy   ny kadoa (omaly) <u>ny   zaza</u> (omaly)
       PAST-AGENT FOCUS-buy   DET gift   yesterday DET child
       'The child bought a gift (yesterday).'
    b. no-vid-in'   ny zaza (omaly) <u>ny kadoa</u> (omaly)
       PAST-buy-THEME FOCUS DET child yesterday DET gift
       'The gift, the child bought (yesterday).'
       ('The gift was bought by the child (yesterday).')

all verbs show morphological tense marking;
there are no dedicated non-finite forms

Table 1. Malagasy tense prefixes

past	present	future /irrealis
n(o)-	ø-/m-	h(o)-

one element is the EA, which is encoded with position and verbal morphology;
the verbal voice morphology indicates the external argument

Table 2. Malagasy voice morphology

Voice	Agent focus, AF ("active")	Theme focus, TF ("passive")	Applied object focus, CF ("circumstantial")
Morphological marking	i- an-	ø- in- toa- voa-	Active stem + suffix –an
Example: *vidy* 'buy'	-i-**vidy**	-**vid**-in-	i**vidi**-an-

(for details, see Keenan and Polinsky 1997)

(3) a. Agent focus
       n-i-vidy   ny kadoa ho an-dreni-ny   <u>ny   zaza</u>
       PAST-AF-buy DET gift   for OBL-mother-3SG DET   child
       'The child bought a gift for his mother.'

b. Theme focus
no-vid-in'   ny   zaza ho an-dreni-ny   ny   kadoa
PAST-buy-TF   DET   child for OBL-mother-3SG DET   gift
'The gift, the child bought for his mother.'

c. Applied object focus
n-ividi-an'   ny zaza   (ny) kadoa ny reni-ny
PAST-buy-CF   DET child   DET   gift   DET mother-3SG
'His mother, the child bought a gift for.'

2.2   *Root clause and arguments for the Topic Analysis*

Theme focus construction:

(4)   novidin'   ny   zaza ny kadoa
       bought.TF DET   child DET gift
       'The child bought the gift.' ('The gift was bought by the child.')

Subject Analysis (Guilfoyle, Hung, and Travis 1992)
(5)   novidin' ny   zaza ny kadoa
       PREDICATE   SUBJECT

Topic Analysis (Pearson 2001, 2005, and others)
(6)   novidin'   ny zaza   ny kadoa
       PREDICATE SUBJECT   TOPIC

Table 3. Differences between Subject and Topic

property	Subject	Topic
specificity/referentiality	✘	✔
definiteness	✘	✔/✘
mapping into focus	✔	✘

Arguments for the Topic Analysis (Keenan 1976, 1995, Manaster-Ramer 1993,
    Polinsky 1997, Pearson 2001, 2005)

- no existentially quantified NPs as EA
- no non-referential expressions as EA
- formal marking of definiteness on the EA
- no focus expression in the EA position

(7) a. mihinany trondro fotsiny ilay zaza
       eat.AF   [fish   only]   this child
                      FOCUS
       'This child eats only fish.'

b. *mihinany trondro ilay   zaza fotsiny
   eat.AF   fish   [this child only]
                          FOCUS
   ('Only this child eats fish.')

(8) a. nohanin'ilay zaza fotsiny   ny   trondro
       eat.TF [this child only]   DET   fish
              FOCUS
       'Only this child ate fish.' (lit. 'The fish was eaten only by this child.')

b. *nohanin' ilay zaza   ny   trondro fotsiny
   eat.TF'   this child [DET   fish   only]
                              FOCUS
   ('This child ate only fish.')

- reconstruction for binding (Pearson 2001, 2005)

(9) a. nodiovin'   ilay zaza$_i$ ny   tena-ny$_i$ CONDITION A
       cleanse.TF this child DET   self-3SG
       'This child cleaned himself.'

b. nobaben' ny   renin-dRasoa$_i$ izy$_i$ CONDITION C
   carry.TF DET   mother-Rasoa   3SG
   'Rasoa$_i$'s mother carried her$_i$ on the back.'

☞   Root clauses are amenable to the Topic Analysis

◈   What about more complex structures?

3   *Control structures*

3.1   *Malagasy Control structures*

Control (Equi): an interpretational dependency between two argument positions
in which the referential properties of an overt one, the *controller*, determine the
referential properties of a non-overt one, the *controllee*.

(10)   The farmer$_i$ wanted Δ$_i$ to kill the chicken
                ↑   ↑
           CONTROLLER   CONTROLLEE

Previous discussions of Malagasy control constructions: Keenan 1976, 1995,
Law 1995, Paul and Ranaivoson 1998, Pearson 2001, Polinsky and Potsdam
2002a, 2003, 2005

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Control structures under discussion:

(11) a. nanandrana [namono ny akoho __ᵢ] Rabeᵢ AGENT FOCUS
try.AF   kill.AF   DET chicken   Rabe   CONTROL
'Rabe tried to kill the chicken.'

b. nandraman-dRabeᵢ [novonoina __ᵢ] ny akoho THEME FOCUS
try.TF-Rabe   kill.TF   DET chicken CONTROL
(lit. 'The chicken was tried by Rabe to be killed.')
'Rabe tried to kill the chicken.'

3.2   Control as movement

Analysis of control as movement (O'Neill 1995, Hornstein 1999, 2003, and many others)

derivational analysis of control (O'Neil 1995, Hornstein 1999, 2003): the controller-controllee relationship is derived by movement of the overt DP from the controllee position to the controller position

(12)   [$_{IP}$ **Rabe** [$_{VP}$ try [$_{IP}$ ~~Rabe~~ [$_{VP}$ kill chicken]]]]   MOVEMENT

(13)   [IP **Rabe** [VP try [IP **PRO** [VP kill chicken]]]]   BASE-GENERATION

General arguments in favor of the movement analysis:
▪ theory-internal considerations (Boeckx and Hornstein 2003, 2004)
▪ existence of backward control (Polinsky and Potsdam 2002a, b, 2003), which is particularly problematic for the base-generation analysis
▪ unification of control and raising, with experimental evidence showing similar processing of control and raising structures (Walenski 2002; Featherston et al. 2000)

Malagasy-internal arguments in favor of the movement analysis:
▪ backward vontrol is attested in Malagasy (Polinsky and Potsdam 2003, 2005)
▪ in the Theme focus control construction, PRO in the postverbal agent position is problematic for the base-generation analysis

◈   Assuming the derivational analysis of control, can Malagasy control constructions inform the choice between the Subject Analysis and Topic Analysis?

4   Theme Focus Control

(14) a. n-andram-an-dRabe   no-vono-ina   ny akoho
PAST-try-TF-Rabe   PAST-kill-TF   DET chicken
(lit. 'The chicken was tried by Rabe to be killed.')
'Rabe tried to kill the chicken.'

b. kasa-in-dRasoa   ho-sas-ana   ny zaza
intend-TF-Rasoa   FUT-wash-TF   DET child
(lit. 'The child is intended by Rasoa to be washed.')
'Rasoa intends to wash the child.'

4.1   Characteristics of TF Control

▪ the construction is accepted by all speakers (as widely as AF control); it involves a wide range of typical Control predicates

▪ the control predicate is in the Theme focus form

▪ the control predicate imposes selectional restrictions on its agent; evidence: imperative formation; volitionality of the agent

▪ the embedded predicate cannot be in the Agent focus form (appears either in the Theme focus or Circumstantial form)

▪ controller and controllee are both post-verbal agents (not external arguments)

(15)   n-andram-an-dRabeₖ [no-vono-ina___ₖ] ny akoho
PAST-try-TF-Rabe   PAST-kill-TF   DET chicken
(lit. 'The chicken was tried by Rabe to be killed.')
'Rabe tried to kill the chicken.'

▪ the construction is biclausal (Polinsky and Potsdam 2003, 2005); evidence: scope of negation, adverbial scope, binding; dependent rather than anaphoric tense

(16)   n-andram-an-dRabe   no/ho/*Ø-vono-ina   ny akoho
PAST-try-TF-Rabe   PAST/FUT/*PRES-kill-TF   DET chicken
(lit. 'The chicken was tried to be killed by Rabe.')
'Rabe tried to kill the chicken.'
(see Landau 2004 for the dependent vs. anaphoric tense difference)

▪ the external argument (theme DP) moves to the matrix clause

(17) a. n-andram-an-dRabe [no-vono-ina __$_k$] <u>ny akoho</u>$_k$
PAST-try-TF-Rabe   PAST-kill-TF   DET chicken
(lit. 'The chicken was tried by Rabe to be killed.')
'Rabe tried to kill the chicken.'

   b. ny akoho$_k$ dia   nandraman-dRabe   novonoina
   DET chicken TOP   tried-Rabe   killed
   'The chicken, Rabe tried to kill it.'

   c. inona no   nandraman-dRabe   novonoina?
   what FOCUS   tried-Rabe   killed
   'What did Rabe try to kill?'

4.2   TF Control is Obligatory Control

Obligatory vs Non-Obligatory Control: What is the range of possible controllers available to a controllee?

(18) a. Pat$_i$ plans ___$_{i,*k}$ to sing   OC
    b. Pat$_i$ thinks that ___$_{i, i+k,k}$ to sing would be fun   NOC
    c. It would ruin Pat$_i$'s career ___$_{i,*k}$ to sing in public   NOC

(19)   properties of OC versus NOC   OC   NOC
    a. allows PRO$_{arb}$ reading (no antecedent)   ✗   ✓
    b. permits strict reading under ellipsis   ✗   ✓
    c. paraphrasable with a pronoun   ✗   ✓
    d. allows a non-local antecedent   ✗   ✓
    e. allows a non-c-commanding antecedent   ✗   ✓

(Landau 2000, Hornstein 2003, Jackendoff and Culicover 2003, and references therein)

Table 4. Malagasy OC/NOC diagnostics

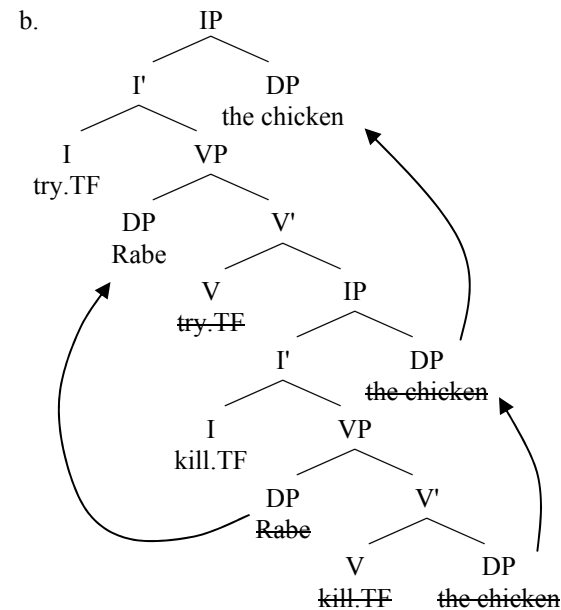|	TF control
no antecedent, PRO$_{arb}$ reading	✗
permits strict reading under ellipsis	✗
allows a non-local antecedent	✗
allows a non-c-commanding antecedent	✗
allows a split antecedent	✗

(see Appendix for the relevant data)

☞ Theme focus control instantiates Obligatory Control, therefore it should be analyzed as movement

5   Movement analysis of Theme Focus Control

5.1   The Subject Analysis: A-movement

(20)   *syntactic assumptions*:
    a.   spec,VP is VP-internal agent position
    b.   V-to-I movement yields V+agent word order

(21) a.   n-andram-an-dRabe   no-vono-ina <u>ny akoho</u>
      PAST-try-TF-Rabe   PAST-kill-TF DET chicken
                                                  SUBJECT
      (lit. 'The chicken was tried by Rabe to be killed.')
      'Rabe tried to kill the chicken.'

   b.

☞ The A-movement analysis for Passive Control creates two overlapping A-movement chains, violating Relativized Minimality (Rizzi 1990, 2001)

◈ What if one of the chains is not A-movement?

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5.2 The Topic Analysis: A´-movement

Proposal: the external argument undergoes A'-movement (TF Control is Obligatory Control; Control is analyzed as movement)

(22) *Topic Analysis*
   a. the external argument (clause final DP) is obligatory topic (subject to A´-movement)
   b. the post-verbal DP is subject

(23) a. n-andram-an-dRabe   no-vono-ina   <u>ny   akoho</u>
         PAST-try-TF-Rabe   PAST-kill-TF   DET chicken
                SUBJECT   TOPIC
         'Rabe tried to kill the chicken.'

   b.
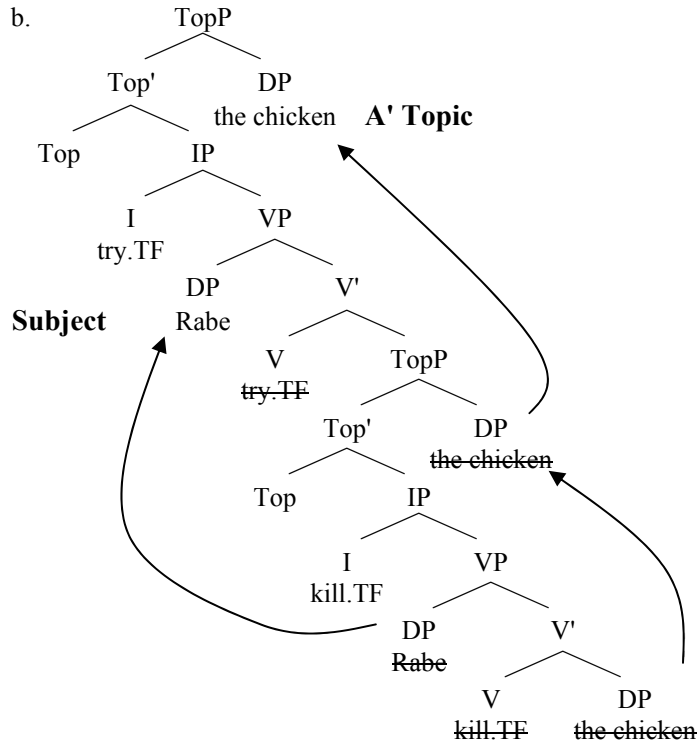
Advantages of the Topic Analysis:

- avoids Relativized Minimality problems

- maintains the analysis of control as A- movement and accommodates the OC characteristic of Passive Control

☞ Movement analysis of Control provides an additional argument for the Topic Analysis of the clause-final DP

◈ What about Agent Focus Control?

6   Characteristics of Agent Focus Control

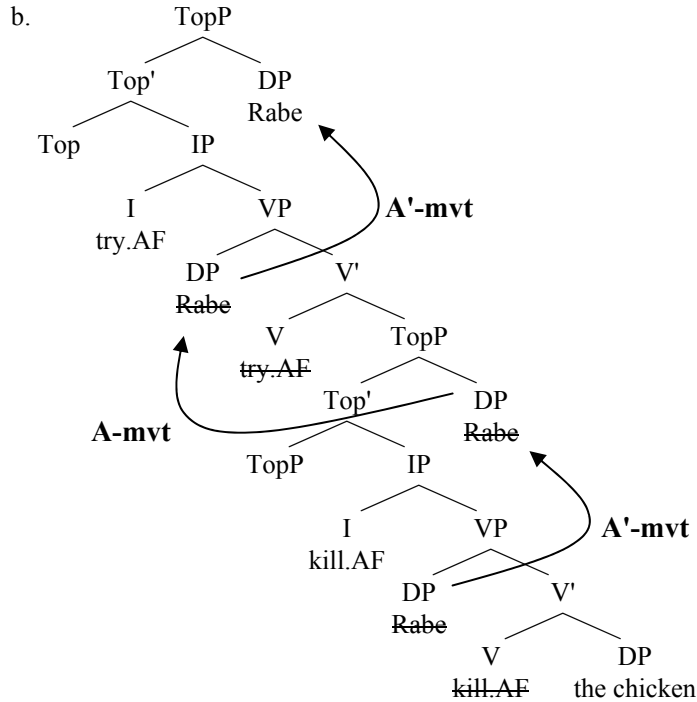(24) a. nanandrana namono   ny   akoho   <u>Rabe</u>
         try.AF   kill.AF   DET   chicken   Rabe
         'Rabe tried to kill the chicken.'
   b. manaiky   hosasan-dRasoa   <u>ny   zaza</u>
         agree.AF   wash.TF-Rasoa   DET   child
         'The child agrees to be washed by Rasoa.'

- the control predicate is in the Agent focus form

- the control predicate imposes selectional restrictions on its EA; evidence: imperative formation, volitionality of the agent

- the embedded predicate is not restricted in voice form

- the controller and controllee are both EAs

(25)   nanandrana [namono   ny   akoho   __$_i$] **Rabe**$_i$
         try.AF   kill.AF   DET   chicken   Rabe
         'Rabe tried to kill the chicken.'

- the construction is biclausal (Polinsky and Potsdam 2002a); evidence: negation, adverbial scope, dependent tense

- the construction represents Obligatory Control (see Appendix)

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## 7 Movement analysis of Agent Focus Control

7.1 The Topic Analysis: First try

(26) a. nanandrana namono ny akoho Rabe
   try.AF   kill.AF   DET chicken Rabe
   'Rabe tried to kill the chicken.'

b.

```
                    TopP
                   /    \
                Top'     DP
               /   \     Rabe
            Top     IP
                   /  \
                  I    VP          A'-mvt
               try.AF  /  \
                     DP    V'
                    Rabe  /  \
                         V    TopP
                       try.AF  /  \
                            Top'   DP
               A-mvt      /   \   Rabe
                       TopP    IP
                              /  \
                             I    VP      A'-mvt
                          kill.AF /  \
                               DP    V'
                              Rabe  /  \
                                   V    DP
                                 kill.AF the chicken
```

☞ The Topic analysis of Agent Focus Control involves Improper Movement (Chomsky 1981, Müller and Sternefeld 1993, and others)

(27)   *Improper Movement*
   α   α̶   α̶
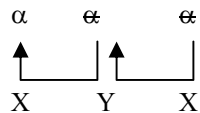
   ```
   X   Y   X
   ```
   where X and Y are different types of syntactic positions (A/A')

alternatives
1. Improper Movement should not be a part of the Minimalist Program (Hornstein 2001:76)
2. Improper Movement is only impossible from complement position (Hornstein 2001:113)
3. complement clause does not contain the A'-position (spec,TopP)

7.2 Control complement is a reduced clause

Proposal: control complements do not have an EA position

▪ overt EA is impossible in complement clause
(28)   *mikasa   [hangalatra ny toaka izy/Rasoa] ny mpianatra
      intend.AF steal.AF DET booze 3SG/Rasoa DET student
      ('The student intends for Rasoa/her/himself to steal the booze.')

not a semantic restriction
(29) a. mikasa ny mpianatra [fa izaho no   hangalatra ny toaka] CP
      intend the student   that I FOCUS steal   DET booze
      'The student intends that I steal the booze.'
   b. mikasa ahy [hangalatra ny toaka] ny mpianatra   SOR
      intend me steal   DET booze DET student
      'The student intends for me to steal the booze.'
   c. mikasa [ny hangalara-ko ny toaka] ny mpianatra NOMINALIZATION
      intend DET steal-my   DET booze DET student
      'The student intends my stealing the booze.'

▪ floating quantifier *daholo* 'all' requires an EA and is impossible in control complement clause
daholo immediately follows the predicate (VP) and can only be bound by the EA, although it does not form a constituent with it (Keenan 1995)

(30) a. namaky boky daholo ny mpianatra
      read.AF book all DET student
      'The students all read the book.'
      *'The students read all the books.'
   b. novakin'ny mpianatra daholo ny boky
      read.TF DET student all DET book
      'The students read all the books.'
      *'The students all read the book.'

daholo in control clauses
(31) a. mikasa   hianatra   tenyanglisy   daholo   <u>ny   mpianatra</u>
     intend.AF   learn.AF   English   all   DET   students
     'The students all intend to learn English.'
   b. *nanaiky   [hianatra   teny   anglisy   daholo]   ny   mpianatra
   c. nanaiky   [hianatra   teny   anglisy]   daholo   ny   mpianatra

extraposed control complement cannot contain *daholo*
(32) a. mikasa   hianatra   tenyanglisy   an'i Amerika   daholo   <u>ny mpianatra</u>
     intend.AF   learn.AF   English   in America   all   DET students
     'The students all intend to learn English in America.'
   b. *mikasa   ny mpianatra   [hianatra   tenyanglisy   an'i Amerika   daholo]
     intend.AF   DET student   learn.AF   English   in   America   all
     ('The students intend to all learn English in America.')
   c. mikasa   daholo   <u>ny mpianatra</u>   [hianatra   tenyanglisy   an'i Amerika]
     intend.AF   all   DET student   learn.AF   English   in   America
     'The students all intend to learn English in America.'

daholo cannot be interpreted under the scope of embedded clause negation
(33) a. nanaiky   tsy   hamaky   ilay boky   daholo   <u>ny mpianatra</u>
     agree.AF   NEG   read.AF   that book   all   DET students
     'The students all agreed to not read that book.'
     *'The students agreed to not all read that book.'
   b. nanaiky   [tsy   hamaky   ilay boky]   daholo   ny   mpianatra
     agree.AF   NEG   read.AF   that book   all   DET students
   c. *nanaiky   [tsy   hamaky   ilay boky   daholo]   ny   mpianatra
     agree.AF   NEG   read.AF   that book   all   DET students

daholo is not licensed in SOR complement clause
(34) a. *nanaiky   anay   hividy   vatomamy   daholo   ny   mamako
     agree.AF   us   buy.AF   candy   all   DET   mother.1SG
     ('My mother agreed for us all to buy candy.')
   b. nanaiky   anay$_i$ [hividy   vatomamy   daholo   __$_i$]   <u>ny   mamako</u>
     agree.AF   us   buy.AF   candy   all   DET mother.1SG

■   cross-linguistic considerations
Cross-linguistically, topic positions are less available in control complements

Japanese (Kuroda 1972, and many others)
(35)   *Jiroo-ga   kono-eiga-wa   mi-yoo-to   shi-ta
      Jiro-NOM   this-movie-TOP   watch-DESID-COMPL   do-PAST.DECL
     '*Jiro tried, this movie, to watch.'
     (OK as: 'Jiro tried to watch THIS movie.'—contrastive reading only)

French (Rizzi 1997)
(36)   ??Je   pense,   ton   livre,   pouvoir   le   comprendre
      I   think   your   book   be.able.INF   3SG   understand.INF
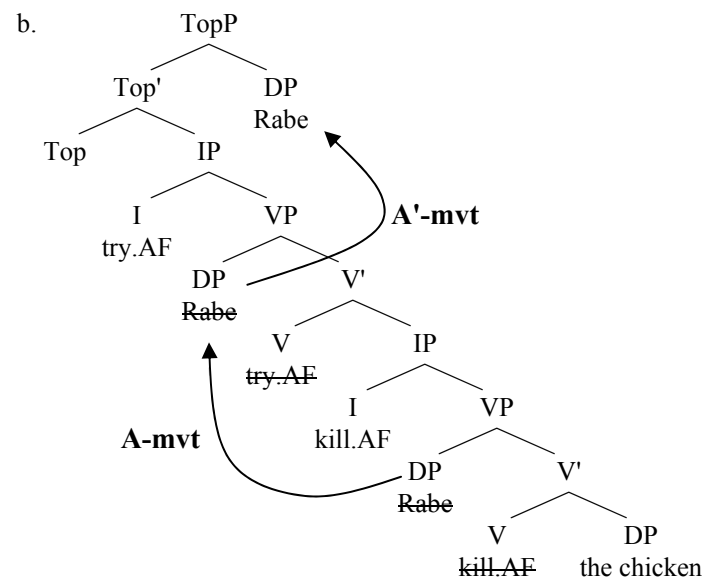   '*I think, your book, to be able to understand it'

English
(37)   *I tried, this paper, to read

☞   The control complement clause does not contain an A'-position
     (spec,TopP)

7.3   The Topic Analysis: Second try (without embedded TopP)

(38) a. nanandrana   namono   ny akoho   Rabe
     try.AF   kill.AF   DET chicken   Rabe
   'Rabe tried to kill the chicken'

   b.

Advantages of the reduced complement Topic Analysis
- avoids improper movement
- maintains the analysis of control as movement
- accommodates the independent evidence that embedded clause does not contain a topic projection

7.4   Revisiting the movement analysis of Theme Focus Control

TF derivation also has no TopP
(39) a. nandraman-dRabe   novonoina   ny   akoho
         try.TF-Rabe   kill.TF   DET   chicken
         'Rabe tried to kill the chicken.'

b.
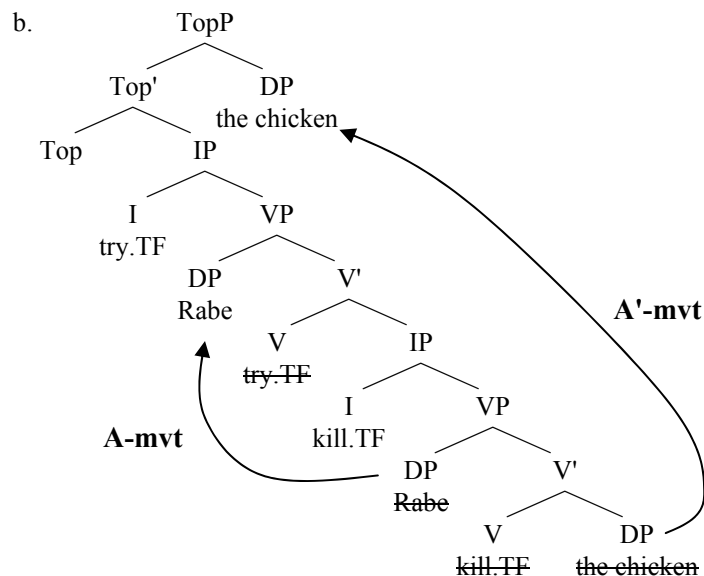
8   Conclusions and open questions

- The status of the Malagasy external argument (clause-final DP)
SUBJECT ANALYSIS: EA is subject and occupies an A position
TOPIC ANALYSIS: EA is topic and occupies an A'-position

Control structures provide evidence for the Topic Analysis

Crucial analytical assumptions:
1. control is analyzed as movement (Hornstein 1999, 2003)
2. control complements have no A'-topic position (section 7.2)

- What determines voice morphology?

PROPOSAL: Voice is determined by the argument of the verb that undergoes A'-movement
(see Pearson 2004 for an implementation of this claim in Malagasy)

PROBLEM: if a clause lacks an argument undergoing A'-movement, how is the voice in that clause determined?

(40) a. kasain-dRasoa   **hosasana**   ny zaza   *TF Control*
         intend.TF-Rasoa wash.TF   DET child
         'Rasoa intends to wash the child.'
     b. *kasain-dRasoa   **hanasa**   ny zaza
         intend.TF-Rasoa wash.AF   DET child
         'Rasoa intends to wash the child.'

- Cross-linguistically, topic positions are less available in control complements; is there a principled motivation for such reduced structure?

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Appendix: Obligatory Control properties of Agent Focus and Theme Focus Control in Malagasy

- arbitrary interpretation of missing antecedent

(41) a. manantena hitsidika an'i Frantsa <u>Rabe</u>   AF
hope.AF   visit.AF   OBL'DET France Rabe
*'Rabe hopes for someone to visit France.'
OK: 'Rabe hopes to visit France.'

    b. antenain-dRabe   hotsidihina i   <u>Frantsa</u>
hope.TF-Rabe   vist.TF   DET   France   TF
*'Rabe hopes for someone to visit France.'
OK: 'Rabe hopes to visit France.'

- strict vs. sloppy reading under ellipsis

(42) a. mikasa   hamono ny   omby <u>Rasoa</u>. Izaho koa.   AF
intend.AF   kill.AF   DET   cow   Rasoa   1SG   also

    b. kasain-dRasoa   hovonoina <u>ny omby</u>. Izaho koa.   TF
intend.TF'Rasoa   kill.TF   DET cow   1SG   also
SLOPPY: 'Rasoa intends to kill the cow and I do too.'
*STRICT: *'Rasoa intends to kill the cow and I intend for her to do so too.'

- non-local antecedent

(43) a. mino   Rasoa   fa   AF
think.AF Rasoa   that
mikasa   handao   an'i Tana   <u>ny governemanta</u>
intend.AF   leave.AF   LOC' DET Antananarivo   DET government

    b. mino   Rasoa   fa   TF
think.AF Rasoa   that
kasain'ny   governemanta hilaozana   <u>i   Tana</u>
intend.TF'DET government   leave.TF   DET Antananarivo
'Rasoa thinks that the government intends to leave Antananarivo.'
*'Rasoa thinks that the government intends her to leave Antananarivo.'

- non-c-commanding antecedent

(44) a. mikasa   hanambady an-dRasoa   <u>ny fianakavian-dRabe</u>   AF
intend.AF   marry.AF   ACC.Rasoa   DET family-Rabe

    b. kasain'ny   fianakavian-dRabe   hovadina   <u>i   Rasoa</u>   TF
intend.TF'DET   family-Rabe   marry.TF   DET   Rasoa
'Rabe's family intends to marry Rasoa.'
*'Rabe's family intends him to marry Rasoa.'

- split antecedent

(45) a. araka   ny reniny   dia nanaiky   hividy   AF
according to DET mother.his   TOP agreed.AF   buy.AF
ilay trano <u>Rabe</u>
this house Rabe

    b. araka   ny reniny   dia neken-dRabe   TF
according to DET mother.his   TOP agreed.TF-Rabe
hovidina   <u>ilay trano</u>
buy.TF   this house
'According to his mother, Rabe agreed to buy this house.'
* 'According to his mother, they agreed to buy this house.'