Patterns of Control in Malagasy and Their Theoretical Implications

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1 Introduction

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*.

(1) The farmer$_i$ wanted Δ_i to sell the ox.
CONTROLLER CONTROLLEE

Most theories of control are based on English and typologically similar languages
- standard base-generation *PRO analysis* (Chomsky 1981, Bresnan 1982, Manzini 1983, Bouchard 1984, Koster 1984, Borer 1989, Sag and Pollard 1991, Martin 1996, Landau 2000 and many others)
- *movement analysis* (Hornstein 1999, 2003, O'Neil 1995)

Malagasy test case
- *typologically unusual patterns of control* that may help to decide between movement and base-generation analyses of control
- *strict restrictions on movement* that may help to refine and/or further support assumptions underlying the movement analysis

main conclusions
- the standard analyses do not predict the full range of controllee positions
- structural parallel between (non-thematic) raising and control relations

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

2 Summary of talk

- Malagasy syntax
- four control constructions and their implications
- conclusions and future issues

3 Malagasy clause structure

VOS basic word order and structure (Guilfoyle, Hung, and Travis 1992; see MacLaughlin 1995, Pensalfini 1995, Pearson 2001 for alternatives)

(2) a. m-i-vidy ny akoho Rabe
PRES(ENT)-ACT(IVE)-buy the chicken Rabe
'Rabe is buying the chicken'

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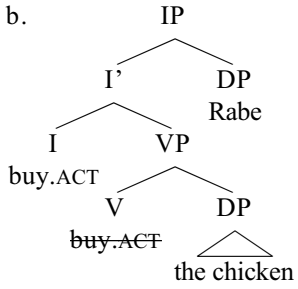


subject in righthand specifier of IP
V°-to-I°
I° checks checks Case of subject
ACTIVE checks Case of object

Malagasy voice system

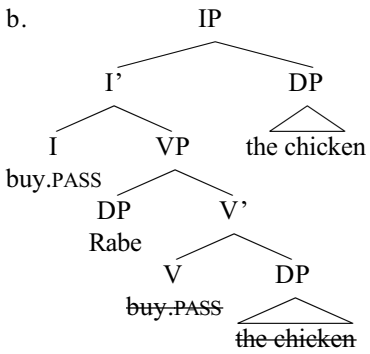
(3) a. n-i-vidy ny akoho hoan-dRasoa Rabe ACTIVE
PAST-ACT(IVE)-buy the chicken for-Rasoa Rabe
'Rabe bought a chicken for Rasoa'

b. no-vidi-n-dRabe hoan-dRasoa ny akoho PASSIVE
PAST-buy-PASS(IVE)-Rabe for-Rasoa the chicken
'The chicken was bought for Rasoa by Rabe'

c. n-i-vidi-anan-dRabe ny akoho Rasoa CIRCUMSTANTIAL
PAST-ACT-buy-CIRC-Rabe the chicken Rasoa
'Rasoa was bought a chicken by Rabe'

non-active clause structure

(4) a. no-vidi-n-dRabe ny akoho
PAST-buy-PASS-Rabe the chicken
'The chicken was bought by Rabe'

b.


non-active agent in spec,V
I° checks checks Case of subject
PASSIVE checks Case of agent

four control patterns

(5) a. nanandrana [namono ny akoho Δ_i] Rabe$_i$ ACTIVE
try.ACT kill.ACT the chicken Rabe
'Rabe tried to kill the chicken'

b. nandraman-dRabe$_i$ [novonoina Δ_i] ny akoho PASSIVE
try.PASS-Rabe kill.PASS the chicken
(lit. 'The chicken was tried by Rabe to be killed')
'Rabe tried to kill the chicken'

c. nahavita [namono ny akoho Rabe$_i$] Δ_i BACKWARD
accomplish.ACT kill.ACT the chicken Rabe
'Rabe finished killing the chicken'

d. mihevitra Rabe$_i$ [fa hamono ny akoho Δ_i] FINITE
think.ACT Rabe that kill.ACT the chicken
'Rabe thinks that (he) will kill the chicken'

4 Active Control

(6) a. n-an-andrana n-a-mono ny akoho Rabe
PAST-ACT-try PAST-ACT-kill the chicken Rabe
'Rabe tried to kill the chicken'

b. m-an-aiky ho-sas-ana ny zaza
PRES-ACT-agree FUT-wash-PASS the child
'The child agrees to be washed'

4.1 Characteristics of active control construction

a. the control predicate is in the active voice
b. the controller and controllee are both subjects

c. the controllee subject cannot be expressed

(7) a. *nanandrana namono ny akoho izy/ny mpiompy Rabe
try.PAST.ACT kill.PAST.ACT the chicken 3SG/the farmer Rabe
('Rabe tried to kill the chicken')
('Rabe tried to have the farmer kill the chicken')

b. *mikasa hangalatra ny toaka izy/Rasoa ny mpianatra
intend.PRES.ACT steal.FUT.ACT the booze 3SG/Rasoa the student
('The student intends to steal the booze')
('The student intends for Rasoa to steal the booze')

not a semantic restriction

(8) a. mikasa ny mpianatra [fa izaho no hangalatra ny toaka] CP
intend the student that I FOCUS steal the booze
'The student intends that I steal the booze'

b. mikasa ahy [hangalatra ny toaka] ny mpianatra SOR
intend me steal the booze the student
'The student intends me to steal the booze'

- selected I° is defective in Case-checking abilities (annotated I^x)

all verbs show morphological tense marking

(9)

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

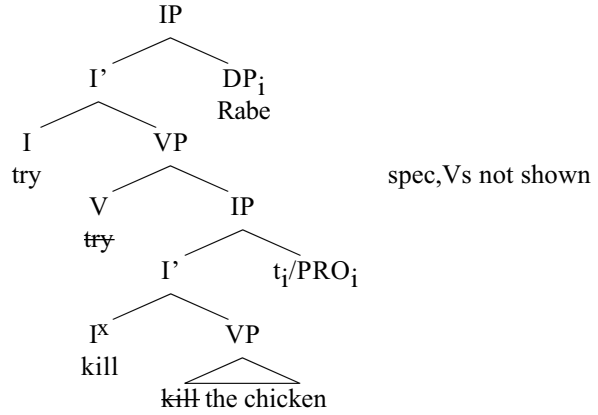
distribution of tense morphology in controlled clauses is unclear

(10) a. m-an-andrana h/m/n-i-vidy fiara aho
PRES-ACT-try FUT/PRES/PAST-ACT-buy car I
'I am trying to buy the car' (semantic differences unclear)

b. m-i-kasa h/*m/*n-i-vidy fiara aho
PRES-ACT-inend FUT/PRES/PAST-ACT-buy car I
'I intend to buy a car'

active control structure

(11)



☞ The active control construction has English-like syntax (modulo tense morphology and word order)

☞ Active control does not inform the theoretical debate between movement and base-generation analyses of control

5 Passive Control

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

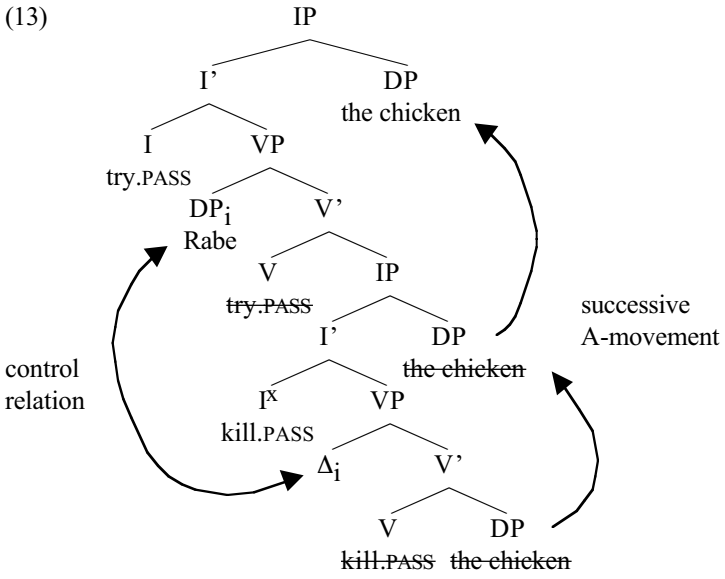
b. kasa-in-dRasoa ho-sas-ana ny alika
PRES.intend-PASS-Rasoa FUT-wash-PASS the dog
lit. 'The dog is intended by Rasoa to be washed'
'Rasoa intends to wash the dog'

5.1 Characteristics of passive control construction

a. available with all verbs that allow active control
b. the control predicate is in the passive voice
c. the embedded predicate is the passive voice (or circumstantial voice)
d. the controller and controllee are both passive agents (not subjects)

e. derivation in which the matrix clause subject is cyclically raised

(13)



- controllee occupies a Case position (embedded spec,V[PASS])

controllee position may be overtly filled

(14) kasa-in-dRasoa ho-sas-a-nao ny alika
intend-PASS-Rasoa FUT-wash-PASS-2SG the dog
(lit. 'The dog is intended by Rasoa to be washed by you')
'Rasoa intends for you to wash the dog'

See also Sigurðsson 1991 (Icelandic), McCloskey and Sells 1988 (Irish), Terzi 1997 (Greek), Moore and Perlmutter 2000 (Russian), and Tóth 2000 (Hungarian), Cecchetto and Oniga 2004 (Latin) on Case-marked PRO

5.2 Theoretical implications

Can passive control inform the debate between base-gneration and movement analyses of control?

(15) *Malagasy movement restriction*
only subjects undergo A'-movement

Keenan 1972, 1976, 1995, Keenan and Comrie 1977, MacLaughlin 1995, Pensalfini 1995, Paul 2000a, 2002, Pearson 2001, Sabel 2002, and others

wh-questions

(16) a. iza no namono ny akoho t_{who}?
who FOCUS kill.ACT the chicken
'Who killed the chicken?'

b. inona no novonoin-dRabe t_{what}
what FOCUS PAST.kill.PASS-Rabe
'What was killed by Rabe?'

c. *inona no namono t_{what} Rabe?
what FOCUS kill.ACT Rabe
('What did Rabe kill?')

wh-question of passive agent

(17) *iza no novonoina t_{who} ny akoho
who FOCUS kill.PASS the chicken
('Who was the chicken killed by?')

☞ Passive control appears incompatible with a movement analysis of control

three hypotheses

1. the standard analysis—reject the movement analysis of control and explore a PRO-based account
2. the NOC hypothesis—movement is not involved in the passive control construction
3. the A-movement analysis—the necessary movement is permitted

5.3 The Non-Obligatory Control (NOC) hypothesis

(18) a. Sandy$_i$ expects PRO$_{i,*k}$ to sing — OC
b. Sandy thinks that PRO$_{i,\ i+k,k}$ to sing would be fun — NOC

English diagnostics

(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	✘	✓

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

☞ Hornstein 1999 does not analyze NOC with movement; NOC structures are base-generated

(20) *NOC hypothesis for Malagasy control*
a. the active control construction is OC
b. the passive control construction is NOC

☞ If (20) is correct, the passive control construction would not involve movement and would not provide evidence against control as movement

Malagasy diagnostics (21)	active control	passive control
a. no antecedent, PRO$_{arb}$ reading	✘	✓
b. permits strict reading under ellipsis	✘	✘[1]
c. paraphrasable with a pronoun	✘	?[1]
d. allows a non-local antecedent	✘	✘
e. allows a non-c-commanding antecedent	✘	✘

• no antecedent, PRO$_{arb}$ reading

(22) a. mikasa hanasa ny lapa-ny ny andriana — ACTIVE
intend.ACT wash.ACT the castle-3SG the king
'The king intends to clean his castle'
*'The king intends someone to clean his castle'

b. kasain' ny andriana hosasana ny lapa-ny — PASSIVE
intend.PASS' the king wash.PASS the castle-3SG
'The king intends to clean his castle'
'The king intends someone to clean his castle'

[1] Accepted by one speaker out of three.

unexpressed agent

(23) a. *nanoratra ny taratasy
write.ACT the letter
('Someone wrote the letter')

b. nosoratana ny taratasy
write.PASS the letter
'The letter was written'

• strict reading under ellipsis

(24) a. te hamono ny omby Rasoa, izaho koa. — ACTIVE
want.ACT kill.ACT the zebu Rasoa I also
'Rasoa wants to kill the zebu and I do too' — SLOPPY
*'Rasoa wants to kill the zebu and I want her to also' — *STRICT

b. tian-dRasoa hovonoina ny omby, izaho koa. — PASSIVE
want.PASS-Rasoa kill.PASS the zebu I also
'Rasoa wants to kill the zebu and I do too' — SLOPPY
*'Rasoa wants to kill the zebu and I want her to also' — *STRICT

• paraphrasable with a pronoun

(25) a. *nanaiky hamono ny omby izy Rasoa — ACTIVE
agree.ACT kill.ACT the ox 3SG Rasoa
('Rasoa agreed to kill the ox')

b. neken-dRasoa hovonoi-ny ny omby — PASSIVE
agree.PASS-Rasoa kill.PASS-3SG the ox
'Rasoa agreed for him/her to kill the ox'
*'Rasoa agreed to kill the ox'

• non-local antecedent

(26) a. mino Rasoa fa — ACTIVE
think.ACT Rasoa that
mikasa handao an'i Tana ny governemanta
intend.ACT leave.ACT LOC'Antananarivo the government

b. mino Rasoa fa — PASSIVE
think.ACT Rasoa that
kasain' ny governemanta hilaozana Tana
intend.PASS' the government leave.PASS Antananarivo
'Rasoa thinks that the government intends to leave Antananarivo'
*'Rasoa thinks that the government intends her to leave Antananarivo'

• non-c-commanding antecedent

(27) a. te hanambady an-dRasoa ny fianakavian-dRabe — ACTIVE
want.ACT marry.ACT ACC.Rasoa the family-Rabe

b. tian' ny fianakavian-dRabe hovadina Rasoa — PASSIVE
want.PASS' the family-Rabe marry.PASS Rasoa
'Rabe's family wants to marry Rasoa'
*'Rabe's family wants him to marry Rasoa'

☞ Active control construction is OC but passive construction also behaves largely like OC

5.4 The A-movement hypothesis

(28) *Malagasy movement restriction*
only subjects undergo A'-movement

same restrictions not documented for A-movement (passive, possessor raising)

subject-to-subject raising from spec,V to spec,V is allowed

(30) a. manomboka manempo ranomandry ny masoandro
begin.ACT melt.ACT snow the sun
'The sun is beginning to melt the snow'

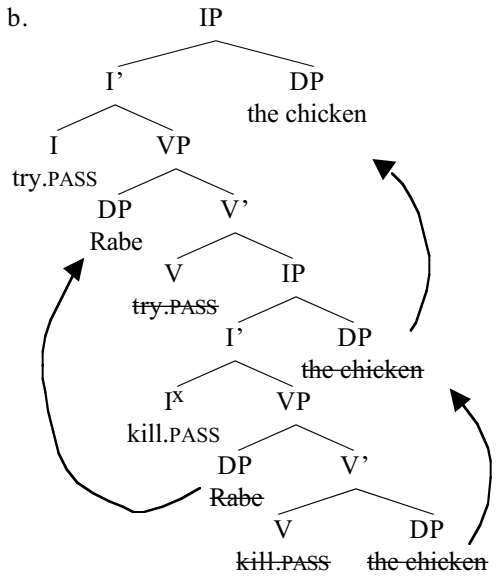
b. manomboka empoin'ny masoandro ny ranomandry
begin.ACT melt.PASS'the sun the snow
'The snow is beginning to be melted by the sun'

c. atombon'ny masoandro empoina ny ranomandry
begin.PASS'the sun melt.PASS the snow
lit. "The snow is being begun by the sun to be melted'
'The sun is beginning to melt the snow'

an A-movement derivation for (30c) or passive control violates Relativized Minimality—two overlapping A-movement chains

(31) a. nandraman-dRabe novonoina ny akoho
try.PASS-Rabe kill.PASS the chicken
lit. 'The chicken was tried by Rabe to be killed'
'Rabe tried to kill the chicken'

b.

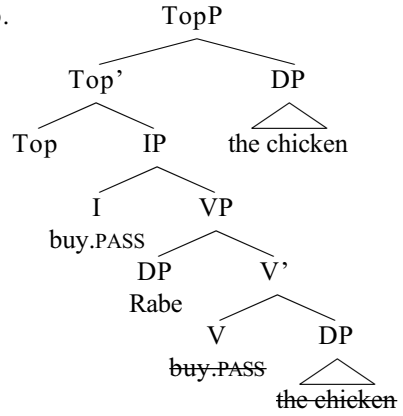


two alternatives
1. current movement mechanisms allow the derivation
2. one of the chains is not A-movement

(32) *Subject/Topic Hypothesis* (Pearson 2001, to appear)
a. the clause-final DP in Malagasy is really an obligatory A'-topic
b. the post-verbal DP is really the subject

(33) a. novidin-dRabe ny akoho
buy.PASS-Rabe the chicken
VERB SUBJECT TOPIC
'The chicken, Rabe bought'

b.



- topic (A'-) properties of clause-final DP (Keenan 1976, Manaster-Ramer 1992, Pearson 2001, to appear)

parallels to V2 topics in German and Icelandic

must be formally definite (Keenan 1976, Paul 2000b, Pearson 2001)

(34) hitan-dRabe **Rasoa/aho/ny boky/*boky/*zaza**
see.PASS-Rabe Rasoa/I/the book/*book/*child
'Rasoa/me/the book, Rabe sees'

reconstruction for binding (Pearson to appear, Paul 2002 for an alternative view)

(35) a. novonoin' ilay lehilahy **ny tenany** CONDITION A
kill.PASS' that man the self-3
'That man killed himself'

b. nobaben' ny rain-dRakoto **izy** CONDITION C
carry.PASS the father-Rakoto.GEN 3.NOM
'Rakoto$_i$'s father carried him'

c. *nobabe-ny **ny zana-dRakoto**
carry.PASS-3 the child-Rakoto.GEN
('He$_i$ carried Rakoto$_i$'s child$_i$')

- subject properties of post-verbal DP (Guilfoyle, Hung, Travis 1992, Pearson to appear)

immediately post-verbal, phonologically bonded to verb (also seen in Berber)

targeted by imperative deletion in non-active voices (Keenan 1976)

(36) a. vonoy *pro* ny akoho!
kill.PASS.IMP the chicken
'Kill the chickens!'

b. amonoy *pro* akoho ny antsy!
kill.CIRC.IMP chicken the knife
'Use the knife to kill chickens!'

c. mamonoa t_{pro} akoho *pro*!
kill.ACT.IMP chicken
'Kill (some) chickens!'

binds an object reflexive (Pearson to appear)

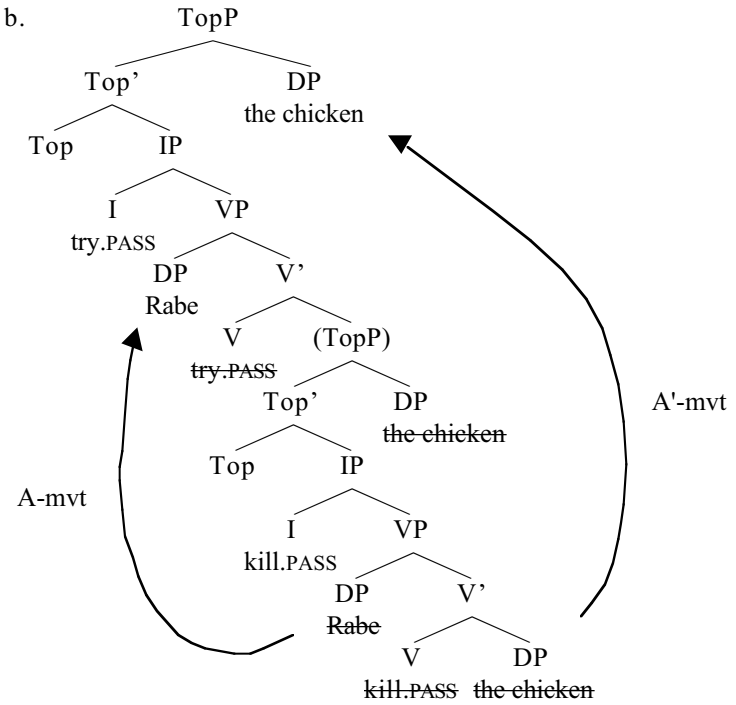
(37) a. namonoan' ny lehilahy$_i$ tena$_i$ ny zanany
kill.CIRC the man self the child.3
'The man$_i$ killed himself$_i$ for his children'

b. *namonoan' ny tenany ny lehilahy ny zanany
kill.CIRC the self.3 the man the child.3
'Himself$_i$ killed the man$_i$ for his children'

mixed A-/A'-movement analysis of passive control

(38) a. nandraman-dRabe novonoina ny akoho
try.PASS-Rabe kill.PASS the chicken
lit. 'The chicken was tried by Rabe to be killed'
'Rabe tried to kill the chicken'

b.



☞ Passive Control is OC

☞ Movement analysis of control may force an A'-topic analysis of Malagasy clause-final DP

6 *Backward Control*

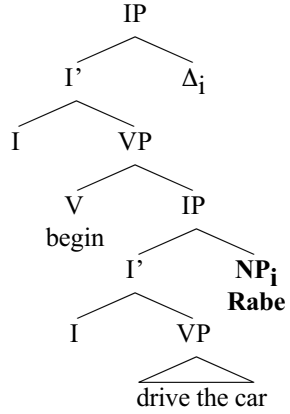
mahavita 'accomplish', *manomboka* 'begin', *mitsahatra* 'stop'

(39) a. n-a-havita n-a-mono ny akoho Rabe
PAST-ACT-accomplish PAST-ACT-kill the chicken Rabe
'Rabe finished killing the chicken'

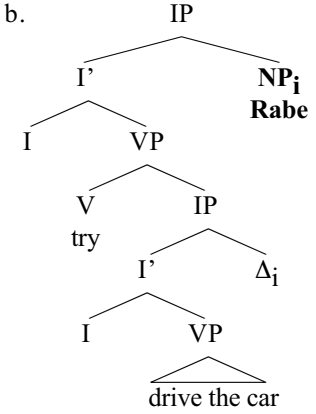
b. m-an-omboka m-i-tondra ny fiara Rabe
PRES-ACT-begin PRES-ACT-drive the car Rabe
'Rabe is beginning to drive the car'

backward control (BC) structure forward control (FC) structure

(40) a.



b.



central claims of BC analysis

(41) a. overt DP (the controller) is in the embedded clause (section 6.1)
b. control verb has an external argument (the controllee) (section 6.4)

6.1 Position of the overt DP

6.1.1 constituency evidence

Is the string [*drive the car Rabe*] a constituent in (39b)?
YES: backward control analysis, (40a)
NO: forward control analysis, (40b)

• VSO word order

heavier constituents can scramble rightward

(42) a. mitondra ny fiara Rabe VOS
drive the car Rabe
'Rabe is driving the car'

b. mitondra Rabe [ny fiara izay novidiko omaly] VOS
drive Rabe the car REL buy.PASS.1SG yesterday
'Rabe is driving the car that I bought yesterday'

FC *try*: VSO permitted

(43) a. manandrana [mitondra ny fiara Δ_i] ny mpianatra$_i$ VOS
try drive the car the student

b. manandrana ny mpianatra$_i$ [mitondra ny fiara Δ_i] VOS
try the student drive the car
'The student is trying to drive the car'

BC *begin*: VSO impossible

(44) a. manomboka mitondra ny fiara ny mpianatra VOS
begin drive the car the student
'The student has begun to drive the car'

b. *manomboka ny mpianatra mitondra ny fiara *VSO
begin the student drive the car

• coordination

coordination of clauses with *ary* 'and' (Keenan 1976)

(45) a. misotra toaka Rabe ary mihinam-bary izy
drink booze Rabe and eat-rice he
'Rabe drinks booze and he eats rice'

b. [$_{IP}$ [$_{IP}$ drink booze Rabe] and [$_{IP}$ eat-rice he]]

FC *try:* predicate+subject ([*drive the car Rabe*]) cannot coordinate

(46) *nanandrana nitondra ny fiara Rabe ary nisotra toaka izy
tried drive the car Rabe and drink booze he
('Rabe tried to drive the car and drink booze')

BC *begin:* predicate+subject ([*drive the car Rabe*]) can coordinate

(47) a. nanomboka nitondra ny fiara Rabe ary nisotra toaka izy
began drive the car Rabe and drink booze he
'Rabe began to drive the car and drink booze'

b. nanomboka [[nitondra ny fiara Rabe] ary [nisotra toaka izy]]
began drive the car Rabe and drink booze he

• embedding under SOR verb

FC *try*: SOR of overt DP is permitted

(48) a. mino Rasoa [fa nanandrana nitaraina Rabe]
believe Rasoa COMP tried complain Rabe
'Rasoa believes that Rabe tried to complain'

b. mino an-dRabe [ho nanandrana nitaraina] Rasoa
believe ACC-Rabe COMP tried nitaraina Rasoa
'Rasoa believes Rabe to have tried to complain'

BC *begin*: SOR of overt DP not permitted

(49) a. mino Rasoa [fa nanomboka nitaraina Rabe]
believe Rasoa COMP began complain Rabe
'Rasoa believes that Rabe complained'

b. *mino an-dRabe [ho nanomboka nitaraina] Rasoa
believe ACC-Rabe COMP began complain Rasoa
('Rasoa believes Rabe to have begun to complain.')

c. *mino an-dRabe$_i$ [ho nanomboka [nitaraina t_i]] Rasoa
believe Rabe COMP began complain Rasoa

6.1.2 VP edge identifiers

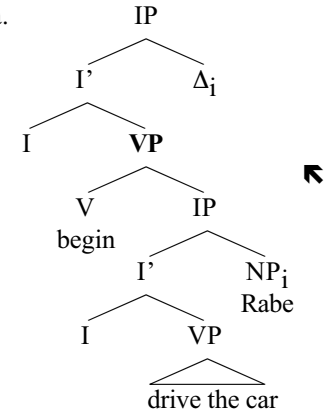
Keenan 1995 presents various elements that mark the right edge of VP

Will such right edge markers appear to the right or left of the overt subject?

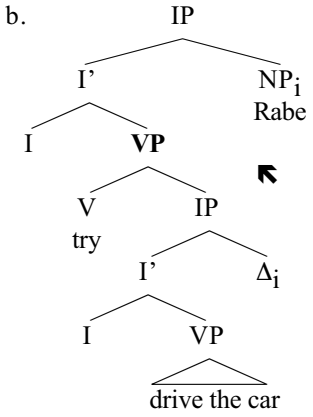
RIGHT: backward control analysis, (40a)

LEFT: forward control analysis, (40b)

(50) a. backward control structure



b. forward control structure



4. VP-adverbs

immediately follow VP in simple clauses (Rackowski 1998, Pearson 1998)

(51) a. niteny ity tonon-kira ity (**indroa**) Rabe (***indroa**)
knock this door this twice Rabe twice
'Rabe knocked twice on this door'

b. [niteny ity tonon-kira ity]$_{VP}$ (**indroa**) Rabe

FC *try*: adverb precedes overt DP

(52) a. nanandrana niteny ity tonon-kira ity (**indroa**) Rabe (***indroa**)
tried knock this door this twice Rabe twice
'Rabe twice tried to knock on this door'

b. [nanandrana [niteny ity tonon-kira ity Δ]]$_{VP}$ (**indroa**) Rabe

BC *begin*: adverb follows overt DP

(53) a. nanomboka niteny ity tonon-kira ity (***indroa**) Rabe (**indroa**)
began knock this door this twice Rabe twice
'Rabe twice began to knock on this door'

b. [nanandrana [niteny ity tonon-kira ity Rabe]]$_{VP}$ (**indroa**)

• question particle *ve* (Keenan 1976, 1995, Paul 2001, Pearson 2001)

immediately follows VP in simple clauses

(54) mitondra ny fiara (**ve**) Rabe (***ve**)?
drive the car Q Rabe Q
'Is Rabe driving the car?'

FC *try*: question particle precedes overt DP

(55) manandrana mitondra ny fiara (**ve**) Rabe (***ve**)
try drive the car Q Rabe Q
'Is Rabe trying to drive the car?'

BC *begin*: question particle follows overt DP

(56) %manomboka mitondra ny fiara Rabe **ve**
begin drive the car Rabe Q
'Is Rabe beginning to drive the car?'

other structural arguments in Polinsky and Potsdam 2002b

☞ the overt DP in the BC construction is in an embedded clause

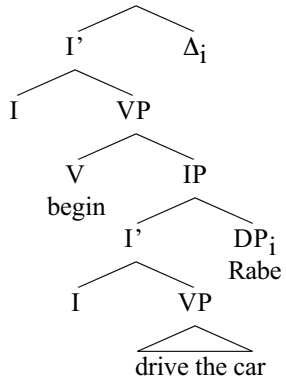
6.2 External argument effects

(57) manomboka [mitondra ny fiara Rabe]
begin drive the car Rabe

BC verb has a full clausal complement. Does it also have an external argument?

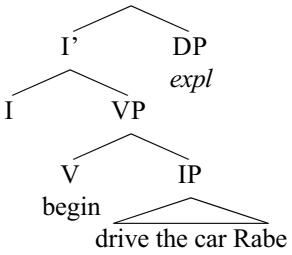
backward control analysis

(58) a.



extraposition analysis

b.



- selectional restrictions

(59) a. avy ny orana
come the rain
'It's raining'

b. *nanomboka avy ny orana
begin come the rain
('It began to rain')

- imperatives (Perlmutter 1970)

(60) manomboha mitondra ny fiara (ianao)
begin.IMPERATIVE drive the car you
'Begin to drive the car!'

- floating quantifiers

a floating quantifier must be i) bound and ii) have a clause-mate antecedent
(Keenan 1995 for Malagasy, Sportiche 1988, Bobaljik 1995, and others)

Malagasy *daholo* 'all'

(61) a. nanomboka omaly [mihomehy **daholo** ny ankizy]
began yesterday laugh all the children
'Yesterday the children began to all laugh'

b. ?nanomboka **daholo** omaly [mihomehy ny ankizy]
began all yesterday laugh the children
'Yesterday the children all began to laugh'

c. nanomboka **daholo**$_i$ omaly [mihomehy ny ankizy$_i$] Δ_i
began all yesterday laugh the children

6.3 Intermediate summary

conclusions

- The control verb has a clausal complement and an external argument
- The overt subject is structurally in an embedded clause

(62) a. manomboka mitondra ny fiara Rabe
begin drive the car Rabe
'Rabe is beginning to drive the car'

b. begin [drive the car Rabe$_i$] Δ_i

☞ The construction instantiates Backward Subject Control, in which the controller is in the embedded clause and the controllee is in the matrix clause

☞ Backward Subject Control has also been observed in Tsez (Polinsky and Potsdam 2002a), Mizo (Subbarao 2003), Tsaxur (Kibrik 1999), Romanian (Alboiu 2003), and possibly Kabardian (Kumaxov and Vamling 1998)

6.4 The syntax of Backward Control

6.4.1 base-generated empty category analysis

(63) manomboka [mitondra ny fiara Rabe$_i$] EC$_i$
begin drive the car Rabe
'Rabe is beginning to drive the car.'

- problems with EC = PRO

1. PRO is not bound
2. PRO$_{arb}$ interpretation expected

(64) a. manomboka mitondra ny fiara Rabe
begin drive the car Rabe
'Rabe is beginning to drive the car'
*'Rabe is beginning to have someone drive the car'
*'Someone is beginning to have Rabe drive the car'

b. *begin [drive the car Rabe$_i$] Δ_k

3. Condition C violation

- problems with EC = pro

1. Malagasy is not a *pro*-drop language
2. controllee does not alternate with an overt DP

(65) *manomboka mitondra ny fiara izy$_i$ Rabe$_i$/aho$_k$
begin drive the car he Rabe
('Rabe is beginning to drive the car.')
('I am beginning to have Rabe drive the car')

3. unexplained obligatory coindexed interpretation, (64)
4. Condition C violation

☞ Controller is not a base-generated empty category (PRO or *pro*)

☞ PRO-based analyses of control quite generally rule out Backward Control

6.4.2 movement analysis

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

(66) [$_{IP}$ **Rabe** [$_{VP}$ try [$_{IP}$ **t$_{Rabe}$** [$_{VP}$ drive the car]]]]

☞ In BC there is an ordinary control relationship but the raising of the controller takes place in the covert syntax, after Spell Out (details in Polinsky and Potsdam 2002a, b)

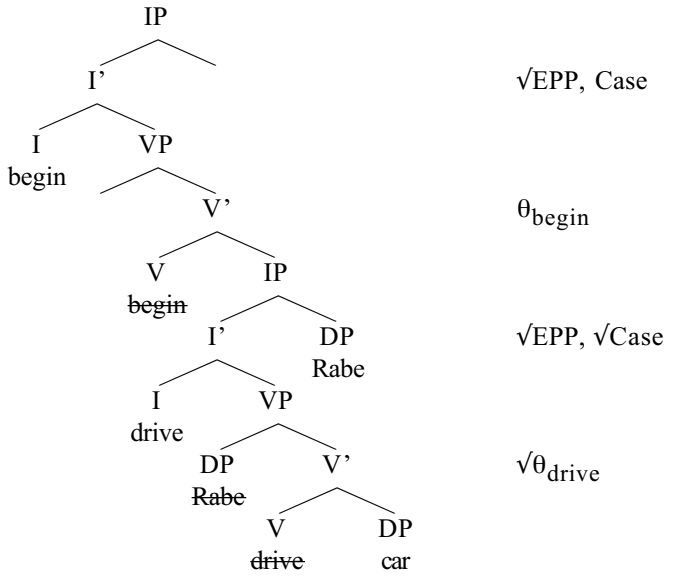
(67) *assumptions about features and feature-checking*
a. θ-roles, Case, and EPP are features of heads
b. features may be strong or weak
c. Procrastinate: overt movement is driven by strong features only
d. features are checked in core structural relations: head-spec, head-complement, or head-head
e. the EPP feature is strong

BC derivation and stipulations

(68) manomboka [mitondra ny fiara Rabe$_i$] Δ_i
begin drive the car Rabe
'Rabe is beginning to drive the car.'

Spell Out

(69)



overt derivation:

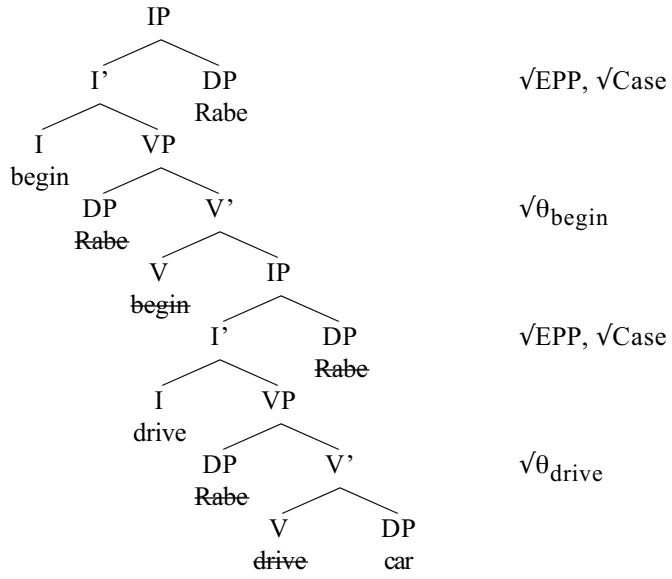
1. *Rabe* merges with embedded V' *drive the car* and checks external θ-role feature
2. *drive* moves to I°
3. *Rabe* moves to embedded spec,I to check EPP and Case features
4. *begin* is lexically specified as selecting a non-defective IP which can check Case
5. complement clause merges with V° *begin*
6. VP merges with I°
7. *begin* moves to I°

Why no violation of the EPP in the higher clause?

(70) i. EPP can be satisfied by verb raising (Alexiadou and Anagnostopoulou 1998, Benmamoun 1999)
ii. *begin* can exceptionally satisfy the EPP upon raising (it is specified as [+D] in the system of Benmamoun 1999)

Logical Form

(71)



covert derivation:

8. *Rabe* moves to matrix VP to check V° *begin*'s external θ-role feature
9. *Rabe* moves to matrix spec,I to check Case (again?)

Why does the subject appear to check Case twice?

(72) a. Case checking is optional (McCloskey and Sells 1988, Ura 1998)
b. chains with multiple Case positions are permitted (Chung 1978, Massam 1985, McCreight 1988, Harbert 1989, Yoon 1996, Bejar and Massam 1999, and others)

Why must control movement be delayed until LF?

(73) a. *begin* clause has no unchecked strong features at Spell Out
b. no driving force for overt movement

☞ Backward Control construction offers support for a movement analysis of control and argues against base-generation analyses (Polinsky and Potsdam 2002a, b)

7 Finite Control

control into tensed CPs (first documented in Keenan 1976; preliminary data)

(74) a. mihevitra Rabe fa hividy fiara
PRES.think.ACT Rasoa that FUT.buy.ACT car
'Rabe thinks that he will buy a car'
b. mihevitra ny zaza fa hilomano
PRES.think.ACT the child that FUT.swim.ACT
'The child thinks that he will go swimming'

CPs with overt C° are extraposed

(75) a. mihevitra Rabe fa hividy fiara aho
think.ACT Rabe that buy.ACT car I
'Rabe thinks that I will buy a car'
b. *mihevitra fa hividy fiara aho Rabe
think.ACT that buy.ACT car I Rabe
('Rabe thinks that Rasoa is looking for car')

Hebrew, Spanish, Dogrib, Kannada, Persian, Balkan languages (Landau 2003 and references therein), Japanese (Uchibori 2000)

7.1 Characteristics of finite control construction

construction has characteristics of OC

(76)

		finite control
a.	no antecedent, PRO_{arb} reading	✘
b.	strict reading under ellipsis	✘
c.	paraphrasable with a pronoun	✓
d.	allows a non-local antecedent	✘
e.	allows a non-c-commanding antecedent	✘

no obviation with overt subject

(77) a. mihevitra Rabe fa hividy fiara (izy)
PRES.think.ACT Rabe that FUT.buy.ACT car 3
'$Rabe_i$ thinks that $he_{i,k}$ will buy a car'

controller and controllee must be subjects
no passive finite control

(78) a. *heverin-dRabe fa hovidina ny fiara
think.**PASS**-Rabe that buy.**PASS** the car
('It is thought by Rabe that the car will be bought by him')
(ok: 'It is thought by Rabe that the car will be bought by someone')

7.2 Towards an account

- standard analysis—see Landau 2003 for an analysis of finite control within the PRO tradition

- movement analysis

subject-to-subject raising out of CP complements of passive verbs allowed (Keenan 1976)

(79) a. heverin-dRabe fa hividy fiara aho
think.PASS-Rabe that buy.ACT car I
'Rabe thinks that I will buy a car'

b. [heverin-dRabe [fa hividy fiara ~~aho~~]] aho
think.PASS-Rabe that buy.ACT car I I

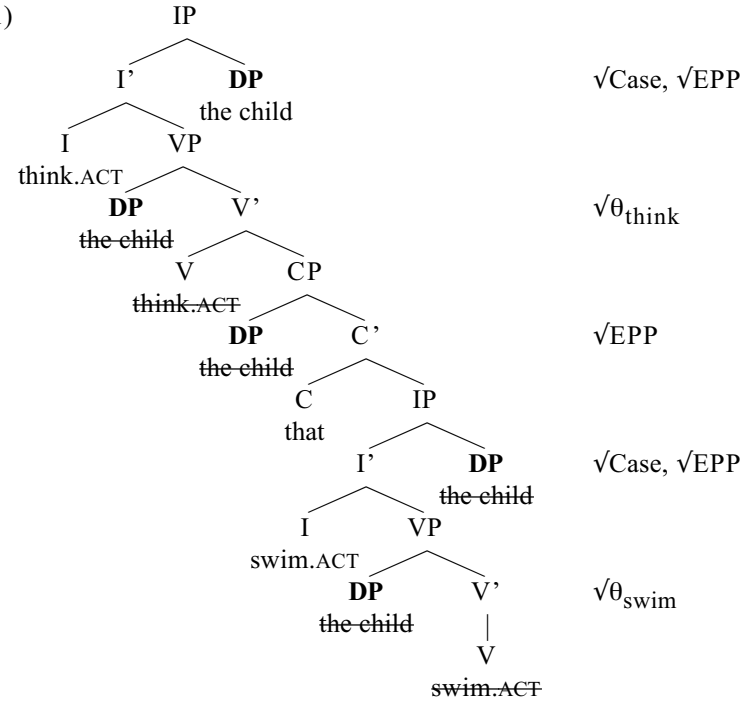
evidence for raising—DP follows matrix question particle *ve*

(80) a. heverin-dRabe fa hividy fiara **ve** aho?
think.PASS-Rabe that buy.ACT car Q I
'Does Rabe think that I will buy a car?'

b. [heverin-dRabe [fa hividy fiara ~~aho~~]] ve aho
think.PASS-Rabe that buy.ACT car Q I

finite control derivation (extraposition of CP not shown)

(81)



√Case, √EPP

$\sqrt{\theta}_{think}$

√EPP

√Case, √EPP

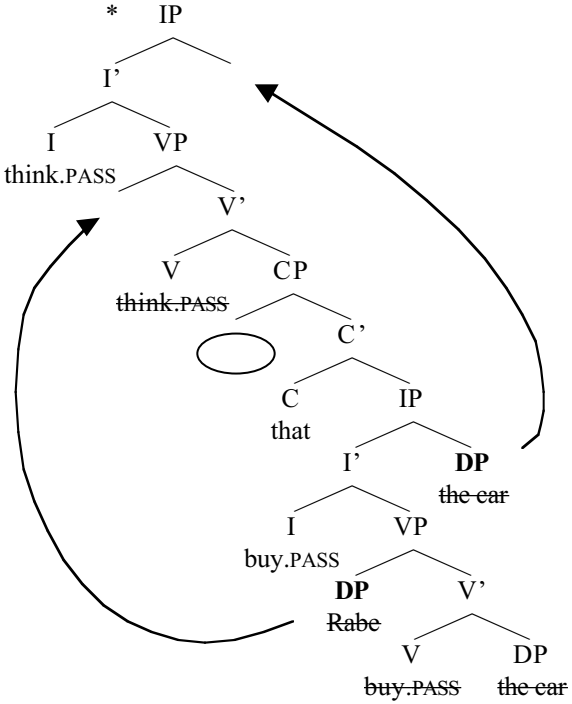
$\sqrt{\theta}_{swim}$

(82) a. mihevitra ny zaza fa hilomano
PRES.think.ACT the child that FUT.swim.ACT
'The child thinks that he will go swimming'

b. *heverin-dRabe fa hovidina ny fiara
think.**PASS**-Rabe that buy.**PASS** the car
('It is thought by Rabe that the car will be bought by him')

ruling out passive finite control (extraposition of CP not shown)

(83)



Both movement chains are competing for spec,C
competition did not arise in passive control where complement is an IP

☞ Finite Control is compatible with a movement analysis of control. Differences from active/passive control structures are a consequence of the additional CP projection.

8 Conclusions

four control constructions

(84) a. nanandrana [namono ny akoho Δ_i] Rabe$_i$ ACTIVE CONTROL
try.ACT kill.ACT the chicken Rabe
'Rabe tried to kill the chicken'

b. nandraman-dRabe$_i$ [novonoina Δ_i] ny akoho PASSIVE CONTROL
try.PASS-Rabe kill.PASS the chicken
(lit. 'The chicken was tried by Rabe to be killed')
'Rabe tried to kill the chicken'

c. nahavita [namono ny akoho Rabe$_i$] Δ_i BACKWARD CONTROL
accomplish.ACT kill.ACT the chicken Rabe
'Rabe finished killing the chicken'

d. mihevitra Rabe$_i$ [fa hamono ny akoho Δ_i] FINITE CONTROL
think.ACT Rabe that kill.ACT the chicken
'Rabe thinks that (he) will kill the chicken'

- The range of variation in Malagasy Obligatory Control constructions is richer than could be predicted on the basis of English and similar languages. Cross-linguistic variation is important for theory evaluation and development
- All four Malagasy Control constructions behave largely like Obligatory Control and are thus relevant for theorizing in that domain

theoretical conclusions

support for a derivation approach to Control

- Malagasy shows a tight correlation between cross-clausal thematic (Control) and non-thematic (Raising) syntactic configurations, supporting a unification of the syntax of Raising and Control
- Variation in the surface position of the controller in Active versus Backward Control supports a derivational approach to Control assuming that movement can be overt or covert

challenges for the standard approach

- Standard PRO analyses do not predict the full range of controllee positions seen in Malagasy Control constructions
- Backward Control, documented in Malagasy and other languages, provides a particularly strong challenge to base-generation analyses

open questions

- What are the full characteristics of Malagasy finite control? Does it pattern with better documented cases of finite control?
- What are the details of the movement/Agree relations that might allow a derivation for Passive Control and Finite Control without assuming an A'-topic analysis?
- What mechanisms are available to handle controllees in Case positions?
- How do Malagasy Control complements, which show tense morphology, differ from infinitives, tense-dependent subjunctives, or indicatives in other languages?

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