## The relative clause spectrum:

pff, postscript: this pdf does not show the animations. If you'd like a keynote file, let me know

## the view from Maasai and Malagasy

Hilda Koopman<br>UCLA koopman@ucla.edu GIST 5 Relativizing Strategies,<br>Gent<br>March 2012

## Relative clauses: the two extremes and what lies in between

 clauses

- Maasai (Koopman, 2003, 2005) common noun DPs: not D NP but relative clause D CP (this is the lower bound of relative clause spectrum. What lies in between?? Nominalizations (case study of Malagasy, drawing heavily on Nthelitheos 2006)



## Maasai



## Oldía ildiaín

 dog / dogs (citation form, acc)look like some kind of relative: it is a relative! --> link to (reduced) relative clauses (nairobi, ol tukai) Emon Bach (1968), Rich Campbell (1996)

## Structure of the noun; and DP order:

o. 1 ... dia (pron.poss) Num A (DPposs )
ms.sg.ms... $\operatorname{dog}(M S) . N U M . C A S E$
atoms: case (tone), number (tone and segmental), gender, asymmetric agreements, gaps in attested agreements, independent occurrence o and 1 ;
discontinuous ol and N ;
derive these from the atoms and structure
phrasal movements (Koopman (2003, 2005), no difference morphology and syntax

## DPs with common nouns in Maasai: D CP not D NP


in red: what intervenes between ol and NP(dog): ol- previously.mentioned former-dog pos.pron Num A DPpos
raising analysis (free relatives)
--in (Maasai) both the NP predicate and
ol dog its "subject" are pronounced;
--(the subject) the"article" (ol, in..) is always present (except for 2 neg polarity items: thing, person) (pred nom, citation, indef,
former merges with nominal SC. former [SC....]
A NP compound, )
two independent surface constituents, (discontinuous consitituent due to internal merge)

## On the difference between Maasai and English DPs: pronounced ol vs silent ol

is this movement to $C$ ever visible in English?
yes, if (silent) ol itself combines with a relative


Maa English
predicate inversion yes no (Pred S vsVSO)
"variable"-pronounced yes no
D (CP) pronounced no yes

## D CP expected variability


what rel pronouns look
Merge: how to reach
Spec, CP? (locality)
A or A' movement?
--> A movement

Find yourself a language that shows a lot of the VP structure in its morphology and allows D C to merge with all kinds of complements (if same spell out, reflect same local structure)


## Malagasy

based on: The morphosyntax of nominalizations: A case study Ntelitheos, 2006)
a. n. i.vídy boky ho an'ny mpianatra ny mpampianatra. PST.AT.buy books for' D student D teacher 'The teacher bought books for the student.'
active= AT actor topic voice:
i-, aN-, [Left periph... [T.AT.V.. O ] S ] ]
non active=
TT theme topic
...[V-TTn S ...] O]
non active $=C T$ circumstantial voice: builds on AT voice forms [ [2 3] I]
(i) [time/manner/location... [V atS-ct ]

O ] ]
(ii) [atV-ct. n. S..(O)....] Obl
internal distribution
external distribution
gaps

## f-nominalizations

f-nominalizations<br>mpampianatra 'teacher'<br>/pampianatra/<br>mf.AT.f.AT.learn<br>'who causes there to be someone who learns'

A. i. f-AT nominalizations
ii. $f / m$ agent participant nominalizations (agent) iii. f-CT nominalizations (obliques, adjuncts)
f - can merge at different heights:
correlates with: different internal and external distribution:
which follow from: the structural atoms, their merge order, and relativization (internal merge), which looks like A movement
All $f$ - nominalizations can combine with $D$ :
ny $[C P(T)$ : use of determiner to form nominalizations..
D CP nominalizations
Malagaus also optionally uses f.a as a subordinator; this builds on top of the structure with a nominative topic (the "pivot".) fa is never selected. CPs with fa are strong islands, and occur in special positions, outside the verbal domain, following nominative topics. CPs without fa occur in the predicate phrase
...... [ [ (CP) ] nom.top fa-CP ]

## PART I. f.AT.V nominalizations: the smallest of the fnominalizations.

a. Instrumental, names tools
vaky split open mamaky to cut famaky 'axe' N that cuts zaitra sewing manjaitra to sew fanjaitra 'needle' N that sews
b. Manner
leha* (go) mandeha 'to go' fandeha manner of walking teny language miteny 'to speak' fiteny manner of speaking
little n : where does n cat come from? promoted, via relativisation
vp shells
c. can contain bare NP themes:
ala, manala 'to remove' hidy lock, fanalahidy 'key'; N that removes lock tarika mitarika 'to pull, lead' andro 'day' fitarikandro morning star; $N$ that pulls the day
--f-AT nominalizations are [-animate];
--combine with all nominal projections (A, Num, Dem, D);
--cannot correspond to themes for transitive AT predicates;
--must contain AT and transitive VP shells (they are bigger than roots);
--may not contain: event, definite object, acc, adverbs, scrambling, tense etc
f attaches to AT verb forms, higher than the root;
but no higher than manner/AT Voice
a. sasa m.an.asa wash, trans. f.an.asa 'manner of washing (sth.)'
b. m.i.sasa wash self f.i.sasa 'manner of washing self'

## Analysis: f-AT nominalizations: manner and instruments

| formation of small <br> clause <br> [ol] [NP] |
| :--- |
| dem |

 (=subjects), *theme..
--A movement
--formation of nominal predicate outside cp-relative
why cannot the head be animate? (It can, but requires an extra piece of morphology:
correlating: must be agentive: $m+f$ -
nominalizations: These ALSO contain acc:
Agent...ACC ..f ..
--> if external argument is agent:ACC
X

instrumental
nominalizations


## PART II. Agent p-nominalization: mf-extra piece of structure ( $f-->p$ ): syntactic consequences (accusative objects)

NB written mp but pronounced as /p/
a. soratra 'writing' manoratra mpanoratra 'writer, an author' b. asa 'work' miasa mpiasa 'worker, employee'
human, accusative

## Result nominals (professions)

a. mpaka sary (photographer) (habitual, no internal arguments with accusative)

Event nominals: (yes, accusative, scrambling, event modifiers), no adjectives, possessors, numerals)
a. m. aha. ndro sakafo matetika Rabe

ASP.ABL.cook food often Rabe
'Rabe cooks food often'
b. ny [mp.aha.ndro sakafo matetika ] dia Rasoa MODIFIERS

D NML.ABL.cook food often TOP Rasoa
'Rasoa is the frequent cook of food'
c. ny [mp.aha.ndro matetika ny sakafo ] dia Rasoa SCRAMBLING

D NML.ABL.cook often D food TOP Rasoa
d. . ny [mp.amp.i.anatra azy ] matekika

D NML.CAUS.AT.study 3/ACC
'The one who teaches him/her/them.

## Analysis: mf-AT nominalizations: agentive (eventive) <br> --A movement:


postcript: what is crossed out cannot merge with C/f
This is perhaps because what moves is already a dp
m human m
accusative
--cannot be theme:
--accusative must be part of the region outside AT; event properties.
--only agent relative (m can only occur in these relatives.
Must be the highest (low manner can occur).
--Why not all nominal
Rroperties?
acc

Marssins
manner
AT vp shells

If the subject of NP (x, i.e. Masai ol) has merged with the predicate NP below the C(f)., in the verbal spine, merging A/Num with $c$ will never satisfy the semantic properties of $A$ or Num..

## part III. f-CT nominalizations: build on AT voice

(9) f-CT nominals: [[AT-V] -an] Result, instrument,locative, manner

| ROOT | GLOSS | CT-FORM | f-NOMINAL | GLOSS |
| :--- | :--- | :--- | :--- | :--- |
| hita | vision | ahitana | fahitana | sight; a vision |
| foy | abandoned | amoizana | famoizana | rejection, abandonment |
| asa | work | iasana | fiasana | thing you work with/instrument |
| ady | fighting | iadiana | fiadiana | weapon |
| anatra | advice | ianarana | fianarana | school |
| angona* | (gathering) | angonana | fiangonana | church |
| kapa | cutting | ikapana | fikapana | way of cutting |
| lomano | swim | ilomanosana | filomanosana | way of swimming |

f-CT nominalizations can contain anything below T : (but no T morphology, no tense adverbs, no episodic readings, not the pivot (nominative topic) nor any of the left periphery.)
--> attach below T (yielding different CT nominalizations).
this includes: definite objects, scrambling, high adverbs, accusative pronownd you get these recursive voices, etc..
ny f.an.doah.an-dRabe tsara *(ny) rindrina dia ilay fantsika
D NML.AT.drill.CT/LNK-Rabe well D wall TOP DEM nail readings from relativization?
'The (instrument for) Rabe's drilling the walls well is this nail.'
why no temporal readings?

## Analysis f-CT nominalizations: relativization of obliques


$*$
T
T

-- CT merges high; obliques should be the only elements that can merge with $C$; --not clear how to put all the pieces together by merge.
( $f$ - must attach to AT, CT is merged above AT, and ends up to the left of CT, CT non-active voice, come with $n$ edge, to which the subject raises)

why no temporal f-nominalizations? $f$ - nominalizations do not contain $T$ morphologically (m-,n-/ho-, cannot contain temp modifiers. (duration is fine)

## Part IV: free relatives: D (ny) CP

--contain TP;
--(adverbs), episodic readings (Keenan and Polinsky)
--excludes nom topics and all higher elements in left periphery;
--what can relativize: predictable from voice forms. highest accessible element in TP, depending (at least in part on voice forms)
--have the distribution of Def DPs (not suprisingly!).


* ny f.i.amben.an' ny miaramila dia ny alarobia D NML.AT.watch.CT/LNK' D soldier TOP D Wednesday 'The soldiers' (time for) watching is Wednesday.'
vs.
ny n.an.orat.an-dRasoa ilay taratasy dia (tamin') ny roa sy dimy
D PST.AT.write.CT/LNK-Rasoa DEM letter TOP (PST.at') D two and five
'The (time when) Rabe wrote this letter was five past two.'


## Relative clauses: the two extremes and what lies in between



- raising analysis, in conjunction with rich 'cartography', with further details and questions coming into focus: comparative syntax.
- If that- complements of V , DPs are relatives, how does this impact the theory of locality? When are DPs/CPs transparent, and when are they not? What can escape and how to understand this? External possession, external PP, P-stranding (cf Kayne, 2003, 2005). Why only extraction from subjects of DPs?
- Given the theoretical premises taken here only one option: this must be derived from structure building, perhaps depending on where D/C enters into the derivation. (cf Koopman and Szabolcsi (2000) on Hungarian hogy.)

