Intraposition and Formosan adverbial heads

Arthur Holmer, University of Lund

AFLA 11, ZAS, Berlin, April 2004

Background

Cinque:  - universal hierarchical ordering of adverbs
         - hierarchically above VP

(1)  

speech act 1
   generally 2
   Neg 3
   already 4
   still 5
   at.all 6
   anymore 7
   always 8
   completely 9
   well 10  VP

(Rackowski & Travis 2000:121)

Malagasy:  - preverbal adverbs follow Cinque’s proposal
           - postverbal adverbs in reverse order wrt Cinque

(2)  2 - 3 - 4 - 5 - VERB - 10 - 9 - 8 - 7 - 6 - 1

Symmetric solution:  - Head - Complement - Specifier structure
                      - preverbal adverbs are heads
                      - postverbal adverbs are Specs

(3)  

Adv1P
   Adv1° Adv2P Spec 1
   2 Adv2° Adv3P Spec
   3 Adv3° Adv4P Spec
   4 Adv4° Adv5P Spec
   5 Adv5° Adv6P Spec
   Adv6° Adv7P Spec 6
   Adv7° Adv8P Spec 7
   Adv8° Adv9P Spec 8
   Adv9° Adv10P Spec 9
   Adv10° VP Spec 10

- why should a uniform range (6-10) be Specs?
- why should a uniform range (2-5) be heads?
Kayne (1994): Linear Correspondence Axiom

=> right-Specs can not exist
=> solution (3) cannot be correct

Intraposition (Rackowski & Travis 2000 & related work)

- cyclic predicate raising
- each (postverbal) ADV head forces raising of the complement

(4) \[ \ldots \quad \text{Adv}^4_4 \quad \text{Adv}^5_5 \quad \text{Adv}^6_6 \quad \text{Adv}^7_{7m} \quad \text{Adv}^8_8 \quad \text{Adv}^9_{9k} \quad \text{Adv}^{10}_{10} \quad \text{Adv}^{10'}_{10'} \quad \text{Adv}^{10''}_{10''} \quad \text{Adv}^{10'''}_{10'''} \]

Why should ADV cause predicate raising?

- not just a [+PRED] EPP feature in $T^o$
  (< each instance of ADV causes 1 instance of PRED-raising)

=> generalized PRED-raising

Rackowski & Travis (2000: 130):

- PRED-raising languages vs. ARG-raising languages

- Argument raising:

  [+D] EPP => DP to SpecTP, passing through every Spec on the way

(5) \[ \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \]

\[ \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \quad \text{TP} \]

\[ \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \]

\[ \text{T} \quad \text{Y} \quad \text{Z} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \]

\[ \text{DP}_i \quad \text{TP} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \quad \text{Spec} \]

\[ \text{T} \quad \text{Y} \quad \text{Z} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \quad \text{VP} \]
- Simplest view of PRED-raising (not R&T!):  

[+PRED] EPP => single VP-raising to SpecTP

(6)

\[
\begin{array}{c}
\text{TP} \\
\text{Spec} \\
\text{VP_i} \\
\hline
\text{T} \\
\text{Spec} \\
\text{Y} \\
\hline
\text{YP} \\
\text{Spec} \\
\text{Z} \\
\hline
\text{ZP} \\
\end{array}
\]

- do ARG-raising languages and PRED-raising languages apply same mechanism?

**Alternative:**

- PRED-raising is not a single value in T°
- PRED-raising holds for all predicates (extensions of VP, e.g. AspP, TP, AdvP etc)

=> entirely different mechanism:

(7)

\[
\begin{array}{c}
\text{XP} \\
\text{YP_i} \\
\hline
\text{X'} \\
\text{ZP_j} \\
\text{Spec} \\
\text{Y'} \\
\hline
\text{Y°} \\
\text{Spec} \\
\text{Z'} \\
\hline
\text{Z°} \\
\end{array}
\]

2 problems:

a) PRED-raising does not preclude ARG-raising (vP / VP must still be vacated)

b) what prevents further PRED-raising?  
   => why are there any preverbal ADVs at all?

R&T (2000: 122) - Preverbal ADVs are Specs, not heads;
- independent evidence for phrase-hood?  
- how is head-hood vs. phrase-hood recognized?

**Seediq (Atayalic: Taiwan):**

a) heads can serve as hosts for clitics:

(8) \textbf{Netun}=su m-imah sino, bsukan=su dhenu.  
if-2SG.NOM ACTF-drink wine drunk-2SG.NOM consequently  
‘If you drink wine you will get drunk.’
Did you drink wine yesterday?

But I don’t smoke.

...and I didn’t see that snake.

Who did you see yesterday?

It’s OK if you smoke here.

I can speak Seediq.

I can’t speak Seediq.

I can’t speak Seediq.
(20) **ini** + **CONNEG** + **not** **CONNEG**

- some heads can replace verbal morphology

(21) **wada=mu** qta-un ka sapah=su
    PST=1SG.GEN see-PATF NOM house=2SG.GEN
    ‘I saw your house.’

(22) **q-n-ta-an=mu** ka sapah=su
    -PST-see-LOCF=1SG.GEN NOM house=2SG.GEN
    ‘I saw your house.’

(23) **wada=mu** q-n-ta-an ka sapah=su
    PST=1SG.GEN -PST-see-LOCF NOM house=2SG.GEN
    ‘I saw your house.’

- some heads can bear and replace verbal morphology

(24) **yah-un** m-ekan qolic ka bunga
    come-PATF ACTF-eat rat NOM sweet.potato
    ‘Rats will come and eat the sweet potatoes.’

(25) **yah-un** puq-un qolic ka bunga
    come-PATF eat-PATF rat NOM sweet.potato

(26) puq-un qolic ka bunga
    eat-PATF rat NOM sweet.potato
    ‘Rats will eat the sweet potatoes.’

— **all** of these features hold for a set of manner adverbials

· these can be lexical verbs:

(27) **P-n-lingis=mu** beebu laqi=mu ciga.
    CAUS-PATF.PST-weep=1SG.GEN beat.ACTF child=1SG.GEN yesterday
    ‘I beat my child yesterday until it cried.’

(28) **P-n-lingis=mu** laqi=mu ciga.
    CAUS-PATF.PST-weep=1SG.GEN child=1SG.GEN yesterday
    ‘I made my child cry yesterday.’

· they can also be manner adverbs:

(29) **tte-un=** daha t-m-ekan ka macu
    to.pieces-PATF=3PL.GEN -ACTF-pound NOM millet
    ‘They pound the millet to pieces.’

(30) **tkan-un=** daha ka macu
    pound-PATF=3PL.GEN NOM millet
    ‘They pound the millet.’

(31) **tte-un=** daha tkan-un ka macu
    to.pieces-PATF=3PL.GEN pound-PATF NOM millet
    Intended reading = ‘They pound the millet to pieces.’, cf (29)

(32) quyu mlehe sa, ini=daha **mhm-i** s-m-ipaq sa
    100-pacer QUOT NEG=3PL.GEN needlessly-PATF,CONNEG -ACTF-kill QUOT
    ‘it is said that they don’t kill 100-pacer snakes needlessly.’
(33) skret-an=daha m-ekuy quwaq salo 
tight-LOCF=3PL.GEN ACTF-tie mouth pot
‘They tie the mouth of the pot tightly.’

(34) bleg-un=daha g-m-emuk s-kiicu=daha sburo da bsiyaq 
well-PATF=3PL.GEN -ACTF-cover INSF-fear=3PL.GEN rot if long.time
‘They cover it well for fear of it rotting if left a long time.’

(35) tting-un=daha qhuni ka qmegi, 
beat-PATF=3PL.GEN tree NOM soapwort, 
mme-un=daha t-m-uting... 
to.powder-PATF=3PL.GEN -ACTF-beat
‘They beat the soapwort berries off the tree and pound them to powder.’

(36) gguy-un=misu s-m-neru 
secretly-PATF=1SG->2SG -ACTF-tell
‘I’ll startle you.’

(37) ini burux m-ekan ka seediq cbeyo 
NEG alone.CONNEG ACTF-eat NOM person long.ago
‘The people of old didn’t eat alone.’

(38) Ini=daha kntte-i m-ekan beras baso, 
NEG=3PL.GEN often-PATF.CONNEG ACTF-eat grain baso 
penga-un=daha m-ekan 
sometimes-PATF=3PL.GEN ACTF-eat
‘They don’t eat baso grain often, they eat it occasionally.’

(39) ini=daha trmex-i m-ekan, 
NEG=3PL.GEN on.its.own-PATF.CONNEG ACTF-eat 
ado mgihul ka ucik qaun nii. 
because hot(spicy) NOM chili this
‘They don’t eat the chili on its own, because it’s so hot.’

(40) Sari qlmuqun nii, 
qlmuqun this 
inik=daha qbsyaq-i pure heya 
NEG=3PL.GEN long.time-PATF.CONNEG (ACTF).cook 3SG.NOM
‘As for qlmuqun taro, they don’t cook it too long.’

(41) k-tengi hari m-ekan! 
IMP-full a.bit ACTF-eat
‘Eat some more! / Eat until you are more full.’

- these are clearly heads, and they are clearly preverbal 
- they have adverbia meanings

(varying status: idiolectal variation)

(42) Ncuin sa-an=daha m-ita, sa-adis=daha timu. 
sometimes go-LOCF=3PL.GEN ACTF-see INSF-bring=3PL.GEN salt
‘Sometimes they go and see it (the cow), and bring it some salt.’

(43) Ncuin=ku m-usa Taihoku. 
sometimes=1SG.NOM ACTF-go Taipei
‘Sometimes I go to Taipei.’

=> so what prevents predicate raising past preverbal adverbia heads?
What other adverbial types does Seediq have?

cf. Rackowski & Travis’s numbering

<table>
<thead>
<tr>
<th></th>
<th>adverbial type</th>
<th>example</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>speech act</td>
<td>ye; sa;</td>
<td>at all</td>
</tr>
<tr>
<td>2</td>
<td>generally</td>
<td>?</td>
<td>anymore</td>
</tr>
<tr>
<td>3</td>
<td>Neg</td>
<td>ini</td>
<td>always</td>
</tr>
<tr>
<td>4</td>
<td>already</td>
<td>di</td>
<td>completely</td>
</tr>
<tr>
<td>5</td>
<td>still</td>
<td>na</td>
<td>well</td>
</tr>
</tbody>
</table>

(44) ye=su inti ekan hlama
INTERR=2SG NEG eat.ACTF.CONNEG hlama
1 3 3 V
‘Don’t you eat hlama [steamed rice with honey]?’

(45) ini ba mhmet-i
NEG indeed at.random-PATF.CONNEG
3 6 10
m-angal pala q-n-ada seedaq sa
ACTF-take cloth -PATF.PST-throw person QUOT
V S 1
‘(They) don’t just take clothes which (other) people have thrown.’

(46) M-uuyas ruru kiya klaali heya.
ACTF-sing stream there always 3SG.NOM
V 8 S
‘It (the frog) always sings by the stream.’

(47) Ini=ku k-qeni na.
NEG=1SG.NOM CONNEG-thirsty NA
V 5
‘I am not thirsty (yet).’

(48) m-usa m-ekan seedaq kiya gaga cghuun kiya di si (=sa).
ACTF-go ACTF-eat person that be hang there DI SA
V 4 1
‘they (the crows) go and eat the person that has hanged himself, so it is said’

- are final particles adverbs?
- adverbial meanings (as much as Malagasy ve ‘INTERR’, cf R&T, p. 121)

=> in general same pattern as Malagasy
- but several meanings expressed with postspecific particles
  
  - preverbal in Cinque order
  - postverbal in reverse Cinque order
  - postspecific in reverse Cinque order

(49) 1 - 3 - 6 - 10 - VERB - 8 - SUBJ - 5 / 4 - 1

- data not really complete wrt co-occurrences, but doesn’t contradict Cinque;

(possible problem: hierarchical relation NEG - di: 50 – 52)
‘I have drunk wine.’

‘I’m going to buy a house now (this is a new decision).’

‘I don’t drink wine anymore.’

Preverbal adverbials:

– *ini* (type 3) is a head:

  - attracts clitics
  - triggers connegative morphology

‘I didn’t see that snake.’

– *ba* (type 6) is not a head:

  - doesn’t receive, or block, connegative morphology (54)
  - doesn’t attract clitics (55)
  - doesn’t block head movement (56)

‘they certainly don’t just take clothes ...’ (=45)

‘they certainly don’t touch people who have hanged themselves.’

‘they observe (the law) meticulously and bury them’

=> preverbal adverbs can be either heads or non-heads

- are postverbal adverbs heads or specifiers?

  (Specs => symmetric (pre-Kayne) viewpoint)
Kayne, Cinque, R&T:

- all postverbal adverbs must be heads which trigger PRED-raising

=> no difference in head status between preverbal and postverbal adverbs

- so how do we account for distinction preverbal / postverbal?

Problems and a solution:

- assume that postverbal adverbs are heads
- assume that final particles are heads (cf. Holmer forthcoming 2004)

-> then why don’t they block head movement?

Head movement in Seediq:

- clitics realized on 1st head in clause (not 2nd position clitics, cf. exs. 9 – 15)
- this can be COMP (57), TNS (58), Neg (59), ADV (60), V (61) or N (62)

(57)  Netun=su  ini  ekan  ido,
       if=2SG.NOM  NEG  eat.ACTF.CONNEG  rice
       m-uure=su  dhenu.
    ACTF-hungry=2SG.NOM  consequently

‘If you don’t eat, you will get hungry.’

(58)  Wada=mu  qta-un  ka  huling=su.
       PST=1SG.GEN  see-PATF  NOM  dog=2SG.GEN

‘I saw your dog.’

(59)  Ini=ku  kela  r-m-engo  kari  seediq.
       NEG=1SG.NOM  know.ACTF.CONNEG  -ACTF-speak  language  person

‘I can’t speak Seediq.’

(60)  skret-an=daha  m-ekuy  quwaq  salo
       tight-LOCF=3PL.GEN  ACTF-tie  mouth  pot

‘They tie the mouth of the pot tightly.’

(61)  M-n-ekan=ku  ido  ciga.
       ACTF-PST-eat=1SG.NOM  rice  yesterday

‘I ate rice yesterday.’

(62)  Seediq=ku  Paran  yaku.
       person=1SG.NOM  Paran  1SG.NOM

‘I am a person from Paran village.’

=> V -> C movement (cf Holmberg & Platzack (1995) for V2 languages)

- so why don’t adverbiaal heads block head-movement?
- why don’t final particles block head movement?

(c.f. why doesn’t SUBJ position block wh-movement?)

=> A / A’ distinction for phrases
Carnie, Harley & Pyatt (2000):

A / A' distinction for heads
- don’t block each other (cf. Long Head Movement)

In analogy => 2 kinds of heads
X: undergo / block head-raising,
Y: irrelevant for head-raising; trigger PRED-raising
- preverbal heads are of X-type
- postverbal heads are of Y-type
  a) postverbal, presubject: VP etc. moves past them
  b) final particles: whole TopP / SubjP (incl. subject) moves past them

=> ADV order without Head-Spec distinction

· ba ‘indeed’ revisited (exs. 54 - 56):
  - doesn’t partake in X-type processes (head-movement, cliticization etc)
  - but doesn’t trigger PRED-raising

· ba falls outside the distinction X/Y
  - third type (?), or
  - presumably phrasal

=> (not all preverbal ADVs are necessarily heads)

Applicable to the Malagasy problem?
- are Malagasy preverbal ADVs of ba-type (phrasal) or of X-type (heads)?
- where do we find morphological head-evidence for preverbal adverbs?

Formosan: Atayalic: Squliq (Huang 1993)

(63) **m-in-glu=ta?** m-aniq hira?
    ACTF-PST-together=1PL.INCL ACTF-eat yesterday
    ‘We ate together yesterday.’ (op.cit.90)

(64) *m-in-glu=ta?** m-in-aniq hira?
    ACTF-PST-together=1PL.INCL ACTF-PST-eat yesterday
    Intended reading = (62) (op. cit. 90)

(65) **leq-un=maku? m-ita?**
    careful-PATF=1SG.GEN ACTF-see
    ‘It examined (it) carefully.’ (op.cit. 90)
Formosan: Atayalic: C‘uli (Huang 1995)

(66) naqaru-un=mi' ma-bahug ku' situing la finish-PATF=1SG.GEN ACTF-wash NOM clothes PRT
‘I have finished washing the clothes.’ (op.cit 193)

(67) lihka=ci’ ma-ktalyun fast=1SG.NOM ACTF-run
‘I run fast.’ (op cit 195)

(68) si-iwan 'i ma-quwas ni' yumin 'i limuy INSF-replace LINK ACTF-sing GEN Yumin NOM Limuy
‘Yumin sang instead of Limuy.’ (op.cit. 194)

Formosan: Paiwanic: Bunun (Jeng 1977)

(69) qasmav-un ?ista ma-tas?ii? palangan diligent-PATF 3SG.GEN ACTF-make rattan-basket
‘He is diligent making rattan baskets.’ (Jeng 1977:210)

‘He is diligent making rattan baskets.’ (Jeng 1977:205)

Formosan: Tsouic: Tsou (Szakos 1994)

(71) Ø-o-si-cu aha’-va eh-tothom-neni le-tothom-neni UNDF-PR-3-PERF sudden-UNDF against-fight-BENF hit-fight-BENF na 'e eatatiskova ART DEM person
‘She suddenly attacked the man and fought him.’ (op.cit.2)

(72) m-oh-cu aha'o mi-hcihci ho mi-se'u to tì'nì ACTF-PST-PERF sudden-ACTF ACTF-teethbare & ACTF-grimace LOC cliff
‘Suddenly she bared her teeth and grimaced towards the cliff.’ (op.cit.6)

Extra-Formosan: Tagalog (Schachter & Otanes 1972)

(73) mabilis na naglakad si Pedro quick LIG walk NOM Pedro
‘Pedro walked quickly’ (op.cit. 436)

(74) naglakad si Pedro nang mabilis walk NOM Pedro LIG quick
‘Pedro walked quickly’ (op.cit. 436)

Formosan: clear morphological evidence in all 3 subgroups
- Atayalic: full voice on ADV, default on V
- Paiwanic: full voice on ADV, default on V
- Tsouic: defective voice agreement on ADV, full voice on V
Can this be generalized beyond Formosan?
- can preverbal ADVs be heads without morphological evidence?
- can we recognize heads anywhere else (independently?)

Possible consequences:
- all ADVs can be heads in Austronesian
- intraposition caused by Y-heads
- preverbal ADVs are X-heads

=> no head / Spec distinction required to block intraposition, even in Malagasy
  - (head / Spec distinctions can vary independently of linear position)

Future research:
- what are the properties of X- and Y-heads? (A / A'?)
- where else is this distinction found?

References: