GLOW 26 (2003), Lund

Head movement *qua* substitution

Balázs Surányi
Utrecht Institute of Linguistics OTS / Eötvös University
balazs.suranyi@let.uu.nl / suranyi@nytud.hu

1. *Aims*

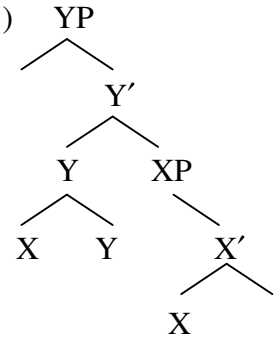
To show that

- head movement as adjunction (as in the checking theory of movement) is not simply susceptible to definitional problems, but in fact is more problematic than commonly acknowledged
- head movement as 'substitution' (creating the target position itself) is a superior syntactic alternative
- head movement is not driven by attraction, but indirectly by a form of the PIC

2. *The problematic nature of head movement in checking theory*

Head movement (e.g. Baker 1988, Chomsky 1993, 1995)

(1)



Two major problems that have been noted:

(i) it requires a complication of the definition of c-command

(ii) it defies the Extension Condition on GTs (i.e. it is counter-cyclic)

– Note1:
In Chomsky (1995), two movement types fall into this category: (1) covert movement (being post-SpellOut), (2) XP- and head-adjunction. The residue is head-adjunction.

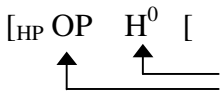
– Note2:
Chomsky (2000): Least Tampering Condition

– Note3:
Problem (ii) can be avoided if interarboreal operations (Bobaljik and Brown 1997, Nunes 2001)

Further problematic aspects:

(iii) (a) it creates a disjunction in the definition of the checking domain, concealed in the negative definition

(b) head movement dependent on phrasal movement to a functional projection, as well as interdependent head and phrasal movement to the same functional projection although possible to encode, they are impossible to capture



AgrPs: multiplication of uninterpretable features

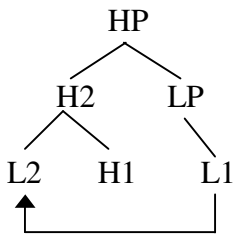
(iv) The locality of head movement is unmatched in the domain of phrasal movement: HMC

The 'no excorporation' restriction: no successive cyclic head movement.
Brody (1997): the 'no excoporation' restriction is not properly derived from an independent source

(2)[H [A [B

(v) Incurs complications w.r.t. the Uniformity Condition

(3)



(vi) Complications w.r.t. the strong/weak distinction. E.g. Mainland Scandinavian Infl:

(4) a. $[_{CP}$ $[_{C}$ $[_{T}$ T V] C] … $[_{TP}$ SU $[_{T}$ t] … $[_{VP}$ $[_{V}$ t]]]]
b. $[_{CP}$ $[_{C}$ C] … $[_{TP}$ SU $[_{T}$ (V)T] … $[_{VP}$ $[_{V}$ V]]]]
[(V)=covert V-movement]

(vii) The functional heads identified as landing sites for head movement are empty

3. *Recent reactions*

- Chomsky (2000): head movement occurs in the PF branch of the computation
  But:
  – phonological triggers?
  – adjacency?
  – conceptually unattractive (e.g. Zwart 2001)

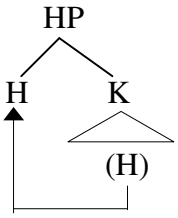
– semantically non-vacuous (e.g. Höhle 1992, Benedicto 1997, Müller 2001)
– has syntactic effects (e.g. may extend 'government domain', syntactic correlations involving head movement remain inexpressible: e.g. Vikner 1990, 1995: TEC only in Ls that have both V-to-I and V2, Holmberg's Generalisation)

- apparent head movement is remnant movement (e.g. Sportiche 1999, Koopman and Szabolcsi 2000, Mahajan 2000, 2001)

  But: triggers, landing sites, predicting characteristic properties of 'head-movement'

4. *Head movement* qua *substitution*

(5)



(i) C-command condition: the moved head trivially c-commands its trace position.

(ii) The Extension Condition: the moved head extends the root.

(iii) The hidden disjunction in the definition of checking domain is also dispensed with: given that there is no head already existing prior to head movement.

(v) The Uniformity Condition is fully respected.

(vii) We derive why those functional heads must be empty: they do not exist prior to head movement.

5. *The drive for head movement*

- no attracting feature

- cyclic SpellOut (Epstein et al. 1998, Uriagereka 1999), the PIC and triggers of movement to phase edges (cf. optionally assigned EPP/P-features on the phase heads) (Chomsky 2000, 2001)

  Cyclic SpellOut/interpretation:
  – on completion of a phase, the next lower phrase (the complement / domain of the head of the phase) is inaccessible to further syntactic operations (Chomsky 2000)
  – "Interpretation/evaluation for PH1 is at the next *relevant* phase PH2" (Chomsky 2001: 10, (9)). 'Relevant'=strong.

Triggers:

– the head H of phase PH may be assigned an uninterpretable EPP- or P(eripheral)-feature "The two features are introduced to allow the general theory of movement to apply without change in this case" (Chomsky 2000: 23, Fn. 51)

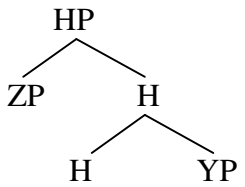
– "Local determination is straightforward: […] an uninterpretable feature in the domain at the phase level determines that the derivation will crash [unless it is moved to the phase edge, SB]" (Chomsky 2000: 22)

– Chomsky 2001: QR and Object Shift are not feature-driven, but must have an effect on the output (=INT) (e.g. Fox, Reinhart). Then: movement is a free operation, but it must result in an immediate/local effect on the output:
(i) either elimination/valuing of an offending feature, or
(ii) a difference in interpretation (Object Shift, QR).

- Assumptions:

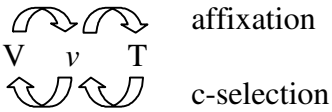
(6) a. Every XP is a ('relevant') phase (for cyclic SpellOut/interpretation)

(7)

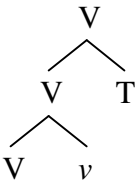


(8) V + v + T

(9)

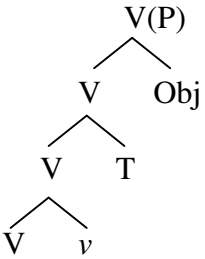


(10)



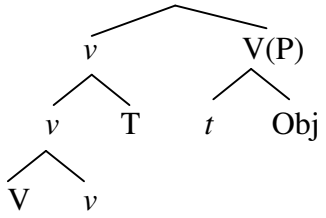
(6) b. C-selection is checking (cf. e.g. Svenonius 1994, Holmberg 2000)
c. Checking (of c-selectional features) is under (derivational) sisterhood

(11)

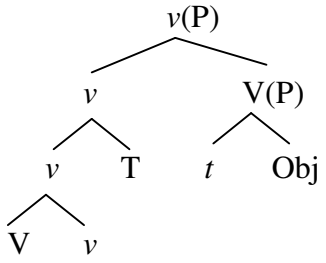


Labels in derivation (Collins, Chomsky 2000)

(12)



(13)



(14) "The simplest assumption is that the phonological component spells out elements that undergo no further displacement, with no need for further specification [i.e. checking, SB]" (Chomsky 2001: 10)

6. *Checklist continued*

- (iii)(b) AgrPs: no multiplication of features

- (iii)(b) interdependent head- and XP-movement captured

(15) [FinP V [TP . . .
[u.foc]

- (iv) strict locality, successive cyclicity

(16) [NP N [HP H . . .
*

- (vi) weak/strong distinction: at top / at bottom alternations: feature on moving head

(17) a. $[_{CP}$ $[_{C}$ $[_{T}$ T V] C] … $[_{TP}$ SU $[_{T}$ t] … $[_{VP}$ $[_{V}$ t]]]] [=(4)]
b. $[_{CP}$ $[_{C}$ C] … $[_{TP}$ SU $[_{T}$ (V)T] … $[_{VP}$ $[_{V}$ V]]]]

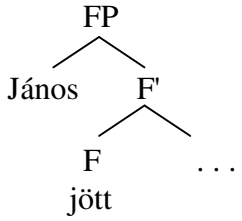
[(V)=covert V-movement]

7. *True multiple foci in Hungarian: another weak/strong paradox*

[É.Kiss 1998, Suranyi (2002, Ch.2.)]

(18) a. JÁNOS jött el a buliba
J.-nom came along the party-to
'It's John who came along to the party'
b. A BULIBA jött el János
the party-to came along J.-nom
'It's the party that John came along to'

(19)



- Multiple foci:

– *only*-XPs: identificational focus

(20) JÁNOS evett meg CSAK KÉT SÜTEMÉNYT
J.-nom ate-3sg Pref only two cookies-acc
'It was John who ate only two cookies [É.Kiss 1998: 11]

– optional destressing: only with identificational focus

(21) A: Ki választotta desszertnek A FAGYIT,
who-nom picked-3sg pudding-for the ice-cream-acc
és nem AZ ALMÁSPITÉT?
and not the apple pie-acc
'Who picked ICE-CREAM for pudding, and not APPLE PIE?'
B: JÁNOS választotta desszertnek A FAGYIT / a fagyit
J.-nom picked-3sg pudding-for the ice-cream-acc
'It was John who picked the ice-cream'

- Krifka (1991):

'Complex focus'

(22) John only introduced SUE to BILL
(He didn't introduce Mary to Fred)
(cf. Taglicht 1984, Rooth 1985, von Stechow 1989, Jacobs 1988, Krifka 1991)

True multiple focus

(23) a. A: John only introduced SUE to Fred
B: John also only introduced SUE to BILL [Krifka 1991]
b. A: I think John and Bill both fell in love only with SUE
B: Only JOHN fell in love only with SUE

(24) a. JÁNOS nem vette észre PÉTERT
J.-nom not took-3sg notice P.-acc
'JOHN didn't notice PETER'
b. It's the pair <John, Peter> for which it holds that
it is not in the denotation of NOTICE
c. It's John for whom it holds that it's not Peter who he noticed

- **Complex focus**: involves movement to primary focus site
(secondary focus: sensitive to islands, quantificational interveners)

- **True multiple focus**:

– Quantificational intervener is OK:

(25) JÁNOS eszik minden reggel CSAK ALMÁT
J.-nom eat-3sg every morning only apple-acc
'It's John who eats only apples every morning'
JOHN > every > ONLY APPLES

– ACD licensing:

(26) Melyik tanár mutatott be Pálnak
which teacher-nom introduced-3sg Pref P.-to
csak EGY olyan lányt, akit János még nem [$_{VP}$ e]?
only ONE such girl-acc who-acc J.-nom yet not
≈'Which teacher introduced to Paul only one such girl who Peter hadn't'

(27) Melyik tanár mutatott be minden fiúnak
which teacher-nom introduced-3sg Pref every boy-to
csak EGY olyan lányt, akit János még nem [$_{VP}$ e]?
only ONE such girl-acc who-acc J.-nom yet not
≈ 'Which teacher introduced to every boy only one such girl who Peter hadn't'

É.Kiss (1998): multiple FocPs.

– overt focus movement licenses ACD as well:

(28) Csak EGY olyan lányt mutattott be Pálnak a tanár,
only ONE such girl-accintroduced-3sg Pref P.-to the teacher-nom
akit János még nem [$_{VP}$ e]
who-acc J.-nom yet not
≈ 'The teacher introduced only one such girl to Paul who John hadn't'

– prefix positioning:

(29) a. FOC_1 V Pref . . . FOC_2 . . . [verb-adjacent Pref]
b. FOC_1 V . . . (XP) . . . Pref . . . FOC_2 . . . [stranded Pref]

– long focus movement:

(30) PÉTERT szeretném minden áron, hogy meghívjuk
P.-acc like-cond-1sg at all costs that Pref-invite-subj-1pl
'It's Peter who I would like at all costs that we should invite'

(31) *ÉN szeretném (csak) PÁLT minden áron, hogy meghívjuk
I-nom like-cond-1sg (only) P.-acc all all costs that Pref-invite-subj-1pl
'It's me who would like at all costs that we should invite (only) PAUL'

– inverse scope effects:

(32) Melyik nap mutattál be mindenkit csak KÉT tanárnak
which day introduced-2sg Pref everybody-acc only two teachers-dat
'Which day did you introduce everybody only to two teachers'
every > only two / only two > every

(33) Miért beszéltél PONT HÁROMSZOR csak KÉT vezetővel
Miért talked-3sg exactly three-times only two leader-with
'Why did you talk only to two leaders exactly three times'
exactly three > only two / only two > exactly three

- The paradox:

(34) [FocP Foc [FocP Foc [. . .
(strong) (weak)

- Resolution in terms of the substitution view of head movement:

(i) FocPs are projected by the cyclically raising verb

(ii) A unique [foc] on V in the configuration analogous to (34)

(ii) Strong feature:
– eliminated as part of SpellOut (Chomsky 2000), or as part of deletion (Lasnik 1999), OR
– moved up and out of the phase to be sent to interfaces

Selected references

Brody, M. 1997. Mirror Theory. ms, UCL.

É.Kiss, K. 1998. Multiple topic, one focus? *Acta Linguistica Hungarica* 45: 3–29.

Krifka, M. 1991. A compositional semantics for multiple focus constructions. In: *SALT* I. *Cornell Working Papers* 11, Ithaca. 127–158.

Surányi, B. 2002. Multiple Operator Movements in Hungarian. PhD Diss, published by Utrecht University.

Svenonius, P. C-selection as feature checking. *Studia Linguistica* 48: 133–155.

Takahashi, D. 1994. Minimality of movement. PhD diss. UConn.