

## Approaches to control phenomena handout 4

### Chapter 4: Empirical advantages

Copy theory of movement: „unifies the kind of thematic discharge found in control and non-control structures. All instances of  $\theta$ -assignment are the result of the merge operation irrespective of the way  $\theta$ -roles are conceived (configurational or featural).

Further empirical consequences of the copy theory of movement and eliminating DS: sideward movement.

- |   |   |  |
|---|---|--|
| <p>(51) a. Num = {the<sub>1</sub>, man<sub>1</sub>, T<sub>1</sub>, saw<sub>1</sub>, Jane<sub>1</sub>}</p> <p>b. <i>Selection of 'saw':</i><br/>Num = {the<sub>1</sub>, man<sub>1</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>1</sub>}<br/>V = saw</p> <p>c. <i>Selection of 'Jane':</i><br/>Num = {the<sub>1</sub>, man<sub>1</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>V = saw<br/>N = Jane</p> <p>d. <i>Merger of 'saw' and 'Jane':</i><br/>Num = {the<sub>1</sub>, man<sub>1</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [saw Jane]</p> | <p>e. <i>Selection of 'the':</i><br/>Num = {the<sub>0</sub>, man<sub>1</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [saw Jane]<br/>D = the</p> <p>f. <i>Selection of 'man':</i><br/>Num = {the<sub>0</sub>, man<sub>0</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [saw Jane]<br/>D = the<br/>N = man</p> <p>g. <i>Merger of 'the' and 'man':</i><br/>Num = {the<sub>0</sub>, man<sub>0</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [saw Jane]<br/>DP = [the man]</p> | <p>h. <i>Merger of DP and VP:</i><br/>Num = {the<sub>0</sub>, man<sub>0</sub>, T<sub>1</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [[the man] [saw Jane]]</p> <p>i. <i>Selection of T:</i><br/>Num = {the<sub>0</sub>, man<sub>0</sub>, T<sub>0</sub>, saw<sub>0</sub>, Jane<sub>0</sub>}<br/>VP = [[the man] [saw Jane]]<br/>T</p> <p>j. <i>Merger of T and VP:</i><br/>TP = [T [[the man] [saw Jane]]]</p> <p>k. <i>Copying of [the man]:</i><br/>TP = [T [[the man] [saw Jane]]]<br/>DP = [the man]</p> <p>l. <i>Merger of DP and TP:</i><br/>[[the man] T [[the man] [saw Jane]]]</p> |
|---|---|--|

→ it is common in a derivational step to have more than one root syntactic object/tree at a time (complex specifiers, (51f), copying (51k)). Further possibility: sideward movement (Nunes 1995)

- (52) a. *Applications of select, merge, and copy:*  
K = [...  $\alpha$  ...]  
L = [...]
- b. *Copying of  $\alpha$ :*  
K = [...  $\alpha$  ...]  
L = [...]  
M =  $\alpha$
- c. *Merger of  $\alpha$  and L:*  
K = [...  $\alpha$  ...]  
N = [ $\alpha$  [L ...]]

No intrinsic difference between upward movement (51j-l) and sideward movement as copy and merge (fn24: movement parasitic on agree → c-command!).

V-to-T movement as adjunction required by the extension condition: if there merger happened in (53a), V could not adjoin to T (not a root syntactic object any more).

“[I]t is *excluding sideward movement as a grammatical possibility that requires additional theoretical devices.*”

(53) a. Applications of select, merge, and copy:

VP = [... V ...]  
T

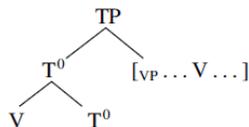
b. Copying of V:

VP = [... V ...]  
T  
V

c. Merger of T and V (by adjunction):

VP = [... V ...]  
K = [<sub>T<sup>0</sup></sub> V [<sub>T<sup>0</sup></sub> T]]

d. Merger of K and VP:



OC in adjunct clauses:

(54) John<sub>i</sub> saw Mary after/before/while PRO<sub>i</sub> eating a bagel

(55) a. Adjunct-control PRO requires a local c-commanding antecedent:

John<sub>i</sub> said [that [Mary<sub>k</sub>'s brother]<sub>m</sub> left [after PRO<sub>m/\*i/\*k/\*w</sub> eating a bagel]]<sup>27</sup>

b. Adjunct-control PRO only licenses sloppy readings under ellipsis:

John left before PRO singing and Bill did too  
'and Bill<sub>i</sub> left before he<sub>i</sub>/\*John sang'

c. Adjunct-control PRO can only have a bound interpretation when controlled by only-DPs:

Only Churchill left after PRO giving the speech  
'[Nobody else]<sub>i</sub> left after he<sub>i</sub>/\*Churchill gave the speech'

d. In the appropriate type of adjuncts (e.g., purposives), adjunct-control PRO obligatorily requires a de se interpretation.<sup>28</sup>

The unfortunate wrote a petition (in order) PRO to get a medal  
'[The unfortunate]<sub>i</sub> wrote a petition so that [he himself]<sub>i</sub> would get a medal'

Analysis in terms of sideward movement (57), saw has a θ-role to assign, John has no Case. The account is the same as for subject and object control.

Further properties of adjunct control:

- subject/object asymmetries: control only by subject of the next higher clause.

(59) John<sub>i</sub> saw Mary<sub>k</sub> after PRO<sub>i/\*k</sub> eating lunch

→ no c-command by object?

(60) John will drink [no wine]<sub>i</sub> before it<sub>i</sub> is ready for drinking

→ c-command!

Proposal: movement and economy: merge over move, Mary merged as object of saw, case assigned, no movement possible.

- CED-effects

(63) \* [[Which book]<sub>i</sub> did [John [<sub>vP</sub> [<sub>vP</sub> talk to Mary] [<sub>PP</sub> after he read *t<sub>i</sub>*]]]]

(64) [John<sub>i</sub> [<sub>vP</sub> [<sub>vP</sub> *t<sub>i</sub>* saw Mary] [<sub>PP</sub> after *t<sub>i</sub>* eating lunch]]] → why is (sideward) movement allowed here?

Proposal: derivational timing: X is an adjunct of Y only after merge, copying before merge is similar to subject movement from vP to TP. Which book cannot move from the PP before it is adjoined to the vP.

- Locality: also derived from the copying before merge requirement.

(69) [John<sub>i</sub> left the room [after Mary<sub>k</sub> answered the questions without PRO<sub>k/\*i</sub> understanding them]]

Finite adjunct clauses pattern the same way in Brazilian Portuguese.

- (57) a. *Applications of select, merge, and copy:*  
 Num = {John<sub>0</sub>, T<sup>φ+</sup><sub>1</sub>, saw<sub>0</sub>, Mary<sub>0</sub>, after<sub>0</sub>, T<sup>φ-</sup><sub>0</sub>, eating<sub>0</sub>, lunch<sub>0</sub>}  
 PP = [after John T<sup>φ-</sup> eating lunch]  
 VP = [saw Mary]
- b. *Copying of 'John':*  
 PP = [after John T<sup>φ-</sup> eating lunch]  
 VP = [saw Mary]  
 N = John
- c. *Merger of John and VP:*  
 PP = [after John T<sup>φ-</sup> eating lunch]  
 VP = [John saw Mary]
- d. *Merger of PP and VP:*  
 [VP [VP John saw Mary] [PP after John T<sup>φ-</sup> eating lunch]]
- e. *Selection of T<sup>φ+</sup>:*  
 Num = {John<sub>0</sub>, T<sup>φ+</sup><sub>0</sub>, saw<sub>0</sub>, Mary<sub>0</sub>, after<sub>0</sub>, T<sup>φ-</sup><sub>0</sub>, eating<sub>0</sub>, lunch<sub>0</sub>}  
 [VP [VP John saw Mary] [PP after John T<sup>φ-</sup> eating lunch]]  
 T<sup>φ+</sup>
- f. *Merger of T<sup>φ+</sup> and VP:*  
 TP = [T<sup>φ+</sup> [VP [VP John saw Mary] [PP after John T<sup>φ-</sup> eating lunch]]]
- g. *Copying of 'John':*  
 TP = [T<sup>φ+</sup> [VP [VP John saw Mary] [PP after John T<sup>φ-</sup> eating lunch]]]  
 N = John
- h. *Merger of 'John' and TP:*  
 TP = [John [T<sup>φ+</sup> [VP [VP John saw Mary] [PP after John T<sup>φ-</sup> eating lunch]]]]
- i. *Deletion in the phonological component:*  
 TP = [John [T<sup>φ+</sup> [VP [VP ~~John~~ saw Mary] [PP after ~~John~~ T<sup>φ-</sup> eating lunch]]]]

### Morphological restrictions on copies

(83) *European Portuguese* (Martins and Nunes 2008):

- a. Custou-me levantar-me cedo                      inflected infinitives, independent tense, expletives possible, *pro* subject  
*Cost-me raise-me early*  
 'Getting up early is hard for me'
- b. \*Custou-me a levantar-me cedo                      OC environment, subject of infinitives a trace/copy  
*Cost-me to raise-me early*  
 'It was hard for me to succeed in getting up early'

Ban on multiple instances of the same clitic in the same clause.

- (84) [TP PRO<sub>expl</sub> cost me<sub>i</sub> [pro<sub>i</sub> [raise me early]]]                      (86) [TP PRO<sub>expl</sub> cost me<sub>i</sub> [pro<sub>i</sub> [raise me early]]]  
 (85) [TP PRO<sub>expl</sub> cost me<sup>i</sup> to [me<sup>i</sup> [raise me early]]]                      (87) [TP PRO<sub>expl</sub> cost me<sub>i</sub> [PRO<sub>i</sub> [raise me early]]]

### Backward control

- (90) a. [PRO<sub>i</sub> V [DP<sub>1</sub> . . . ]                      → evidence for control being clausal  
 b. [DP V PRO<sub>i</sub> [DP<sub>1</sub> . . . ]                      → problems related to PRO: government, case, tense restrictions, binding?

MTC: backward control predicted/expected as lower-copy pronunciation (what licenses it?)

- (103) *Tsez* (Polinsky and Potsdam 2002):  
 [ $\Delta_{1^*2}$  [kidbā<sub>1</sub> ziya bišra] yoqsi]  
*girl.ERG cow.ABS feed.INF began*  
 ‘The girl began to feed the cow’

### Copy-control

Ban on the phonetic realization of multiple copies: contrary linearization requirements. “The phonological component demands that syntactic structure be converted to linear precedence (say, by Kayne’s [1994] LCA), but a chain is a discontinuous object and cannot be mapped onto a single position at PF. Thus, in order for a structure containing a chain to be linearized, all of its links but one must be deleted.” Multiple copies can only be the result of morphological fusion (cf. morphological complexity). Morphological fusion of the controllee copy with the null self-morpheme of the language.

- (127) *San Lucas Quiavini Zapotec* (Lee 2003):
- R-cààa’z Gye’eihlly g-auh Gye’eihlly bxaady  
*HAB.want Mike IRR.eat Mike grasshopper*  
 ‘Mike wants to eat grasshopper’
  - B-quìi’lly bxuuhahz Gye’eihlly ch-ia Gye’eihlly scweel  
*PERF.persuade priest Mike IRR.go Mike school*  
 ‘The priest persuaded Mike to go to school’
  - B-ii’lly-ga’ Gye’eihlly zi’cygàa’ nih cay-uhny Gye’eihlly zèèiny  
*PERF.sing-also Mike while that PROG.do Mike work*  
 ‘Mike sang while he worked’

OC signature → control, sensitive to morphological complexity, ungrammatical with *every girl, his brother*

Telugu, Assamese: only allow adjunct copy control → relevant head triggering fusion is in adjunct clause

## Chapter 5: Empirical challenges and solutions

### 1. Overgeneration problem:

- (3) a. \*John was tried to kiss Mary

MTC ≠ a raising theory of control

Visser’s generalization: control by an implicit subject is disallowed in the passive of English ditransitive control verbs. *promise/offer* vs. *ask/persuade*

Object control, ECM ok under passivization; hyper-raising blocked in BP in passive

(4) a. John was persuaded/expected to kiss Mary

Licensing conditions for A-moving an embedded subject

Relativizing A-movement:

*try, persuade*: theta-driven movement

*seem, was tried, was expected*: agreement in  $\phi$ -features with finite T (or passive participial head)

Raising + ECM select TP, control CP with clausal  $\phi$ -features on C blocking agreement

Hebrew: control infinitives can contain C (not an intervener), raising infinitives cannot

- (22) a. [John<sub>i</sub> tried [<sub>t<sub>i</sub></sub> to win]]                     $\theta$ -role motivated movement/CP  
 b. \*[John<sub>i</sub> is important [<sub>t<sub>i</sub></sub> to win]]             $\phi$ -agreement/CP  
 c. [John<sub>i</sub> is likely [<sub>t<sub>i</sub></sub> to win]]                 $\phi$ -agreement/TP

Visser's generalization (Bresnan 1982)

- (1) a. Calvin promised/offered Hobbes to make him a tuna sandwich.  
 b. His parents promised/offered Calvin to be allowed to stay up late.

Verbs like *ask* and *persuade* show the opposite pattern: they allow control by the thematic subject (2a),<sup>2</sup> but prefer object control (2b).

- (2) a. Calvin asked/persuaded his parents to be allowed to stay up late.  
 b. Hobbes asked/persuaded Calvin to make him a tuna sandwich.

When passivized, however, neither type of verb allows control by the thematic subject (3a-b), while the availability of control by the thematic object is unaffected (3c-d) (Jenkins 1972; Bresnan 1982; Ladusaw and Dowty 1988).

- (3) a. \*Hobbes was promised/offered (by Calvin<sub>i</sub>) PRO<sub>i</sub> to make him a tuna sandwich.  
 b. \*His dad was asked/persuaded (by Calvin<sub>i</sub>) PRO<sub>i</sub> to be allowed to stay up late.  
 c. Calvin<sub>i</sub> was promised/offered PRO<sub>i</sub> to be allowed to stay up late.  
 d. Calvin<sub>i</sub> was asked/persuaded PRO<sub>i</sub> to make Hobbes a tuna sandwich.

That the ungrammaticality of (3a-b) is really due to the impossibility of control by the implicit subject is further illustrated by the fact that the counterparts of (3a-b) without control, given in (4a-b), are fully acceptable.

- (4) a. Hobbes was promised by Calvin<sub>i</sub> that he<sub>i</sub> would prepare him a tuna sandwich.  
 b. Calvin was persuaded by Hobbes<sub>i</sub> that he<sub>i</sub> was a math genius.