

Reanalysis

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08, Topics in Syntax (seminar)

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Structure Removal and Verb Projection Raising in Zurich German

1. Haegeman and van Riemsdijk on Reanalysis: Definitions

Ref.:

Haegeman & Riemsdijk (1986)

- (1) *Reanalysis*:
If the representation of a sentence contains the line $X V^i_q V_r Y$, where $0 \leq i \leq 2$ and V_r is a VR verb, then add the line $X V_x Y$ to that representation.
- (2) *Reanalysis: Paramter*
If $X V^i_q V_r Y$, where V_r is a VR verb, then add $X V_x Y$.
a. Standard Dutch, Standard German: $i = 0$
b. West Flemish, Zurich German: $i = \text{unrestricted}$ (i.e. $0 \leq i \leq 2$)
- (3) *Inversion (PF operation): Main Parameters*
a. The nonhead must be (non)branching or need not be branching.
b. The head of V must be V_A or V_M or is unrestricted.
c. Inversion is optional or obligatory.
d. V_α is maximal or unrestricted.
- (4) *Inversion in Standard Dutch*:
 $[V_\alpha V_\gamma V_\beta] \Rightarrow [V_\alpha V_\beta V_\gamma]$
a. Optional: $V_\beta = V_M$ and V_γ is not branching and V_α is not part of a bigger verb cluster
b. Obligatory: elsewhere
- (5) *Inversion in Standard German*:
a. $[V_\alpha [V_\gamma V_\delta V_M] V_A] \Rightarrow [V_\alpha V_A [V_\gamma V_\delta V_M]]$ (obl)
b. $[V_\alpha [V_\gamma [V_\delta V V_M] V_M] V_A] \Rightarrow [V_\alpha V_A [V_\gamma V_M [V_\delta V V_M]]]$
(obl at top level, otherwise optional)

- (6) *Inversion in West Flemish, Zurich German*:
 $[V_\alpha V^i_\gamma V_{M/A}] \Rightarrow [V_\alpha V_{M/A} V^i_\gamma]$ (obl)
- (7) das er en arie singe chöne_M wele_M hät_A
that he an aria sing can want has
a. das er en arie hät wele chöne singe
b. das er hät en arie wele chöne singe
c. das er hät wele en arie chöne singe
d. das er hät wele chöne en arie singe
- (8) a. das er sini chind mediziin studiere laa_{MCaus} wil_M
that he his children medicine study let wants
b. das er sini chind mediziin wil laa studiere
c. das er sini chind wil mediziin laa studiere
d. *das er sini chind wil laa mediziin studiere*
e. das er wil sini chind mediziin laa studiere
f. *das er wil sini chind laa mediziin studiere*
g. *das er wil laa sini chind mediziin studiere
- (9) *Evers' rule of verb raising*:
... V_1]_S V_2 ...
a. ... e_1] [$V_1 V_2$] ... (German)
b. ... e_1] [$V_2 V_1$] ... (Dutch)
- (10) das er em Karajan en arie vorsinge chöne wil
that he the_{dat} Karajan an_{acc} aria sing for can wants
a. (i) (*dass er em Karajan en arie chöne [vorsinge] wil
(ii) (*das er em Karajan chöne [en arie vorsinge] wil
(iii) (*das er chöne [em Karajan en arie vorsinge] wil
b. (ia) das er em Karajan en arie wil chöne vorsinge
(ib) das er wil em Karajan en arie chöne vorsinge
(iia) das er em Karajan wil chöne en arie vorsinge
(iib) das er wil em Karajan chöne en arie vorsinge
(iia) das er wil chöne em Karajan en arie vorsinge
(iib) das er wil chöne em Karajan en arie vorsinge
- (11) *das er em Karajan will en arie chöne vorsinge*

2. Reanalysis by Removal: A New Approach

2.1. Background: Cut Operations

Assumption (Epstein & Seely (2002), Müller (2011)):

In a strictly local derivational approach with cyclic LF and PF spellout, there are neither syntactic reasons for postulating traces/copies/occurrences (they would not be accessible by syntactic constraints anyway), nor semantic reasons for postulating traces/copies/occurrences (semantic interpretation also applies cyclically).

Consequence:

Movement leaves nothing in the original position, and tree pruning applies (see Ross (1967)). From this perspective, it becomes necessary to postulate an operation Cut that takes an item out of the structure before it remerges it at the root. (Cf. the first step of sideward movement in Nunes (2004), Hornstein (2009).)

(12) *A typology of structure-manipulating operations:*

- a. Merge
- b. Cut
- c. Move = Cut + Merge

Prediction:

There should be instances of bare structure-removing Cut; this operation is the mirror image of bare structure-building Merge (Chomsky (2001; 2008)).

Question:

Would removing existing structure not violate many fundamental constraints?

Answer:

The only relevant constraint that it must violate is the *Projection Principle* (see Chomsky (1981)). However:

(a) There is no room for the Projection Principle in current minimalist analyses anymore.
 (b) The Projection Principle has always been a conceptually unattractive constraint since it qualifies as *global* in Lakoff's (1971) sense. (A global constraint applies to a whole derivation; it correlates non-adjacent steps in the derivation.)

(13) *Projection Principle:*

- a. If A selects B as a lexical property, then A selects B in C at level L_i .
- b. If A selects B in C at level L_i , then A selects B in C at level L_j .

(14) *A consequence of the Projection Principle:*

- a. What₁ did John [_{VP} see what₁]?
- b. *What₁ did John [_{VP} see]?

Note:

To find out whether the Projection Principle is violated, it does not suffice to simply look at a level of representation, or at a step in the derivation – to show that (14-b) is an impossible S-structure representation, we have to know that there is an object DP within VP at an earlier derivational stage.

Observation:

There are also massive problems with the Projection Principle in Haegeman & Riemsdijk's (1986) analysis in terms of multidimensional representations/coanalysis, despite the authors' claims to the contrary (see Stechow & Sternefeld (1988)).

Background assumptions (see Heck & Müller (2007), Müller (2011), Georgi (2014), among others):

(i) *All syntactic operations are feature-driven*

(15) *Four types of features that drive operations:*

- a. Pure structure-building: Merge [•F•]
- b. Pure structure-removal: Cut [-F-]
- c. Structure-removal plus structure-building: Move [•F•]
- d. Probe features: Agree: [*F*]

(ii) *Features on lexical items are ordered*

(16) *Structure-building features of v:*

[•V•] \succ [•D•]

(17) *Last Resort:*

- a. Every syntactic operation must discharge (and delete, or render inaccessible) either $[\alpha F \alpha]$ (where α ranges over •, -, and •) or $[\ast F \ast]$.
- b. Only features at the top of a feature list are accessible.

Note:

If Cut is the mirror operation of Merge, one would expect that it ideally obeys exactly the same constraints, e.g., the Strict Cycle Condition or the Ph(r)ase Impenetrability Condition (there should be no Cut operations targetting more deeply embedded categories). Hypothesis: This is indeed the case (see Müller (2014) on the absence of passive with unaccusative verbs).

(18) *A preliminary taxonomy of Cut operations:*

- a. phrases:
 - (i) specifiers: [-D-]
Müller (2014), Murphy (2014) on standard and stacked passives, respectively
 - (ii) complements: [-V-], [-T-]
possibly an option that might be pursued for VP ellipsis and sluicing (TP deletion).
- b. heads: [-D_h-]
see the previous handout on Circassian DP shell removal (the lower part of the complement remains intact)
- c. features: [-f-]
possibly a way to make sense of impoverishment in the syntax, as in Keine (2010), Doliana (2013)

2.2. The Problem with a Movement-Based Account of Verb Projection Raising in Zurich German

Standard assumption (Evers (1975)):

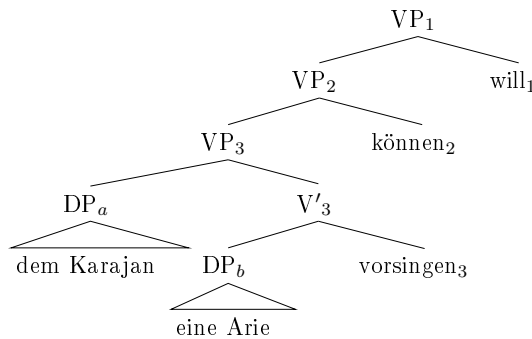
Verb raising and verb projection raising are derived by rightward movement (“adjunction”) of a verbal category. In Standard German and Dutch, this can only be a minimal, V^0 category. In Zurich German (and West Flemish), it can be any verbal projection.

- (19) Evers’ rule:
 $[\dots V_2^i] V_1 \Rightarrow [\dots t_2] [_{V'} V_1 V_2^i]$
 (where i can be any projection level)

Generalization for Zurich German:

All orders are ok where (a) the verbs are inverted and (b) the DPs maintain their basic order (dative \succ accusative).

(20) Base structure:



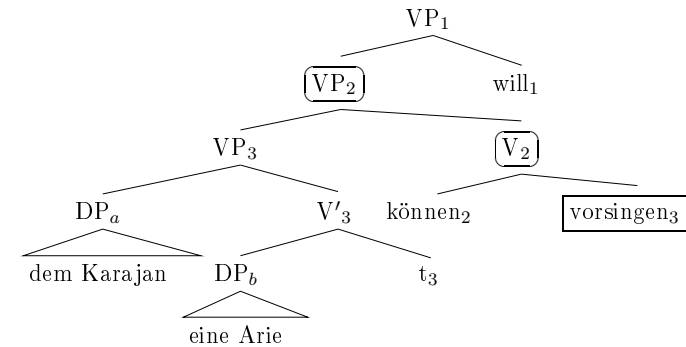
Note:

Verb (projection) raising applies cyclically, from bottom to top. Two steps need to be distinguished. First, V_3^i moves to V_2 ; and then V_2^i moves to V_1 .

Notational convention:

\boxed{X} signals that X has moved; \boxed{X} signals that X can move on the next cycle.

- (21) Intermediate stage, version I: $\boxed{V_3}$ movement



- (22) Continuations of intermediate stage, version I:

- a. $\boxed{V_2}$ moves:
 dem Karajan eine Arie will können vorsingen
 b. $\boxed{VP_2}$ moves:
 will dem Karajan eine Arie können vorsingen

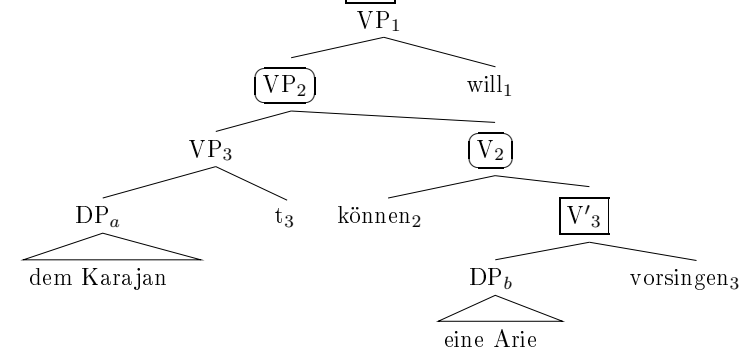
Note:

The string “ DP_b - $können_2$ - $vorsingen_3$ ” is not a constituent (let alone one of type V_2^i). Therefore, (23) cannot be generated.

- (23) The problematic example:

dem Karajan will eine Arie können vorsingen

- (24) Intermediate stage, version II: $\boxed{V'_3}$ movement



- (25) Continuations of intermediate stage, version II:

- a. $\boxed{V_2}$ moves:
 dem Karajan will können eine Arie vorsingen
 b. $\boxed{VP_2}$ moves:

will dem Karajan können eine Arie vorsingen

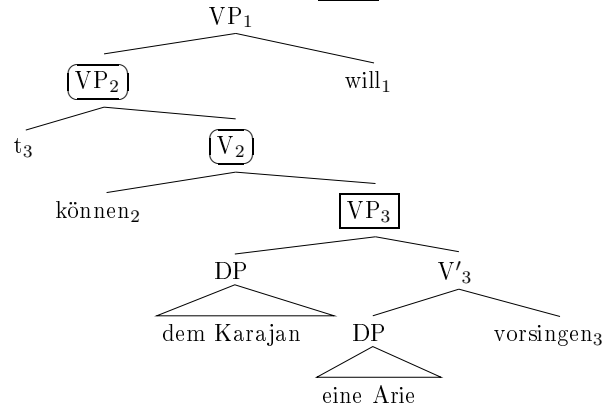
Note:

In (24), there is a substring “können₂–eine Arie”, and since only a V_3^i category can be moved in the final step, there is no way to change the order of these two items and produce the problematic example.

(26) *The problematic example again:*

dem Karajan will eine Arie können vorsingen

(27) *Intermediate stage, version III: VP_3 movement*



(28) *Continuations of intermediate stage, version III:*

a. V_2 moves:

will können dem Karajan eine Arie vorsingen

b. VP_2 moves:

will t₃ können dem Karajan eine Arie vorsingen

Note:

Again, the problematic example cannot be derived for systematic reasons.

(29) *The problematic example once more:*

dem Karajan will eine Arie können vorsingen

2.3. Solution

Observation:

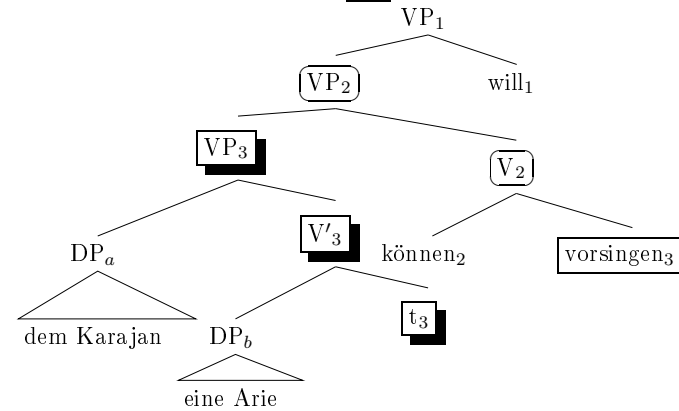
The problematic example can be derived if V_2 carries out a(n optional) Cut operation in the intermediate structure in I that removes V_3 , and hence also V'_3 and VP_3 , but leaves the embedded structure intact.

Two technical issues:

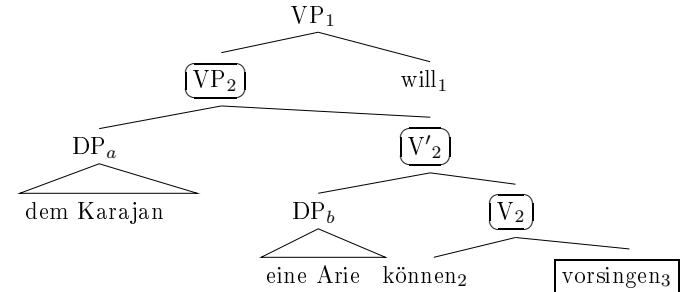
- The Cut feature on V_2 would seem to have to be $[-V_h-]$, and it must be ordered on V_2 after $[\bullet V \bullet]$, which triggers V_3 raising. Thus, when Cut is carried out, there is no V_3 left anymore (which is a good thing, because V_3 is clearly pronounced). However, if movement does not leave a trace, then what exactly does Cut cut? Suggestion: No V'_3 counts as the minimal item sought for by $[-V_h-]$.

- What is new here (as opposed to, say, the Cut approach to Circassian D(P) deletion) is that after the Cut operation has been carried out, there are *two* items (rather than one) that need to be reattached. Since there is no additional special operation involved here, they will have to reassemble in the pre-Cut order.

(30) *Intermediate stage, version Ia: V_3 movement plus V_3^i removal*



(31) *Continuation of stage Ia: V_3^i removal by Cut*



Note:

Now subsequent movement of V'_2 yields the problematic example.

- (32) *The problematic example finally derived:*
dem Karajan will eine Arie können vorsingen

Note:

Given Haegeman and van Riemsdijk's assumptions, Cut operations will also be active in verb (projection) raising constructions so as to effect clause union (CP, TP deletion).

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