Reanalysis

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1. Overview

This is a research-oriented seminar. The goal is to look at a variety of constructions from different empirical domains for which it has often been argued that some form of syntactic reanalysis should be postulated, and to investigate to what extent these approaches can be given a principled implementation from a minimalist perspective. Phenomena that will figure prominently in the discussion include (a) grammatical-function changing (dative shift, passive, applicative, anti-passive, causative, etc.); (b) displacement (*was für* split, bridge verbs, extraction from DP, *that*-trace effects, etc.); (c) the syntax of infinitives (restructuring); (d) exceptional case marking (S-bar deletion); (e) *tough*-constructions.

For all these cases, it has been argued that syntactic structures can be subject to reanalysis, in the sense that existing structures are deleted or modified in some way. The basic premise here is that there is evidence for *two* (or more) structures for a single sentence. In frameworks where strict structure preservation holds, like *Government-Binding Theory* (Chomsky (1981)), or *Principles and Parameters Theory* (Chomsky & Lasnik (1993)), it is virtually impossible to express reanalysis. The only options here would seem to be the postulation of a simultaneous presence of more than one structure (see Haegeman & Riemsdijk (1986), Sadock (1991), Pesetsky (1995)), or to somehow assign reanalysis to the lexicon. The first option is a drastic step that should arguably be avoided if possible for conceptual reasons. The second option is empirically problematic because it cannot accomodate the hypothesis that two structures are present with a single sentence.

The *Minimalist program* (Chomsky (1995; 2001; 2008; 2013)) envisages a core operation Merge, which is formally a *generalized transformation* in the sense of Chomsky (1975). Given Merge, structure preserveration cannot hold in the strict sense for very deep reasons: In Merge-driven syntactic derivations, structural representations

change all the time, by definition. The hypothesis that I would like to pursue in this colloquium is that this opens up the possibility of addressing reanalysis in a similar way, by postulating an elementary operation that is the opposite of Merge since it does not build structure but rather removes structure: Cut.

2. Preamble: Complementizer-Trace Effects

A recent reanalysis approach to complementizer-trace effects in English (Chomsky (2014))

(1) *Complementizer-trace effects (Chomsky & Lasnik (1977))*
- a. Who$_1$ do you think [$_\alpha$ that Mary likes t$_1$] ?
- b. Who$_1$ do you think [$_\beta$ Mary likes t$_1$] ?
- c. *Who$_1$ do you think [$_\alpha$ that t$_1$ likes Mary] ?
- d. Who$_1$ do you think [$_\beta$ t$_1$ likes Mary] ?

2.1. Predecessors

Precedessors of Chomsky's new analysis: Gazdar (1981), Grimshaw (1997). Basic assumptions (slightly anachronistic):

- SpecT is filled by the subject DP in English.
- Movement from SpecT across a complementizer (like *that*) (fatally) violates a constraint because of the category α that is present with complementizers. (This is the Generalized Left Branch Condition in Gazdar (1981), and a proper government requirement in Grimshaw (1997)).
- There is less structure in contexts without a lexical complementizer; and extraction from β is unproblematic.
- It is independently ensured that β rather than α shows up in (1-bd). In Gazdar's approach, α is S and β is VP. In Grimshaw's approach, α is CP and β is TP or VP.
- Structural reanalysis is brought about by a designated metarule in Gazdar (1981), and by an optimality-theoretic competition that ensures minimality of structural representations in Grimshaw (1997).
- Thus, in both these approaches, there is some kind of structural reanalysis, but, crucially, it is not sequential.

(2) *Gazdar's approach*:
- a. *Generalized Left Branch Condition*:
  *[$_{\alpha/\beta}$ σ/β ...]
  where α and σ are any node labels, and β = DP.

b. *Subject Termination Metarule*:
$[_{\alpha}$ X $\Sigma_{[-C]}$/DP ...$] \Longrightarrow [_{\alpha}$ X $VP_{[+fin]}$ ...$]$
where X contains at least one major category symbol, where α is anything and where Σ ranges over sentential categories.

(3) *Grimshaw's approach* (based on Deprez (1991)):

a. T-Gov:
A trace is governed. (C and V can both do this.)

b. T-Lex-Gov:
A traces is lexically governed. (V can do this, C can't.)

c. Op-Spec:
A wh-phrase must be in a wh-specifier position.

Tableau 1: Object movement

Candidates	Op-Spec	T-Gov	T-Lex-Gov
☞ O_1: who$_1$ ... V [$_{CP}$ that [$_{VP}$ Mary likes t$_1$]]			
☞ O_2: who$_1$ ... V [$_{VP}$ Mary likes t$_1$]			
O_3: ... V [$_{CP}$ that [$_{VP}$ Mary likes who$_1$]]	*!		
O_4: ... V [$_{VP}$ Mary likes who$_1$]	*!		

Tableau 2: Subject movement

Candidates	Op-Spec	T-Gov	T-Lex-Gov
O_1: who$_1$ ... V [$_{CP}$ that [$_{VP}$ t$_1$ likes Mary]]			*!
☞ O_2: who$_1$ ... V [$_{VP}$ t$_1$ likes Mary]			
O_3: ... V [$_{CP}$ that [$_{VP}$ who$_1$ likes Mary]]	*!		
O_4: ... V [$_{VP}$ who$_1$ likes Mary]	*!		

Side remark:
Why does this qualify as an optimality-theoretic analysis? No constraints are violated by any of the optimal candidates. The answer comes from adjunct movement.

(4) *Adjunct movement without complementizer-trace effects*:

a. When$_1$ do you think [$_{CP}$ that they will see them t$_1$] ?

b. When$_1$ do you think [$_{IP}$ they will see them t$_1$] ?

2.2. Chomsky's (2014) Approach

Background:
Chomsky (2013) on labelling.

(5) *Assumptions about labelling*:

a. When X merges with YP, X provides the label.

Tableau 3: Adjunct movement

Candidates	Op-Spec	T-Gov	T-Lex-Gov
☞ O_1: when$_1$ ...V [$_{CP}$ that [$_{TP}$ they will see them t$_1$]]		*	*
☞ O_2: when$_1$ ... V [$_{TP}$ they will see them t$_1$]		*	*
O_3: ... V [$_{CP}$ that [$_{TP}$ they will see them when$_1$]]	*!		
O_4: ... V [$_{TP}$ they will see them when$_1$]	*!		

b. When XP merges with YP, a label cannot be provided for the new constituent. However, there must be some label. Two options arise:

(i) XP moves; then YP provides the label. (Traces/copies do not count.)

(ii) XP and YP agree on some feature that provides the label.

(6) *Extended Projection Principle*:

a. [$_{T'}$ T [$_{vP}$ [$_{DP_1}$ John] v [$_{VP}$ likes Mary]]] (internal Merge) →

b. [[$_{DP_1}$ John] [$_{T'}$ T [$_{vP}$ t$_1$ v [$_{VP}$ likes Mary]]]] (labelling) →

c. [$_{\phi P}$ [$_{DP_1}$ John] [$_{T'}$ T [$_{vP}$ t$_1$ v [$_{VP}$ likes Mary]]]]

(7) *Complementizer-trace effects*:
*Who$_1$ do you think [$_{CP}$ that [$_{TP}$ t$'_1$ [$_{vP}$ t$_1$ likes Mary]]] ?

Analysis in Chomsky (2013, 15):
If *who*$_1$ moves from the embedded SpecT position, there is nothing left in SpecT that agrees with T, and the projection cannot be labelled. (Implicit auxiliary assumption: Perhaps because of the EPP requirement of T, this XP-YP projection cannot be labelled by movement of XP.) So *who*$_1$ must stay in SpecT. But then, since CP is a phase, subsequent movement of *who*$_1$ on a later cycle will invariably violate the Phrase Impenetrability Condition (PIC, Chomsky (2001)).

Open question in Chomsky (2013):
Why is subject movement without a complementizer possible?

(8) *Subject movement without C*:
Who$_1$ do you think [TP t$'_1$ [vP t$_1$ likes Mary]] ?

Suggestion in Chomsky (2014):
C is eliminated in the course of the derivation here, after it has transferred its features to T, including phase status. Therefore, the subject wh-phrase does not have to move to a local SpecC position. When it eventually moves into the matrix clause, the labelling of TP cannot be undone. (Phase heads have memory.)

(9) *Order of operations* according to Chomsky (2014):

a. Inheritance: C transfers its features to T.

b. Internal Merge of the subject DP in SpecT (because of EPP).

c. Labelling: [$_{\phi P}$ who [$_{T'}$ T ...]
d. C $\rightarrow$ ø
e. Transfer: (a) ϕP becomes a phase. (b) vP is transferred.

Hornstein's (2014) assessment:
"This story requires that *that* is deleted rather than not present at all. Were it never present, C could not transfer its features to T, and T has no features of its own. [...] Thus, to make this work, we need deletion operations in the syntax. A question that arises is how similar the operation deleting *that* is to more run of the mill ellipsis operations. The latter are generally treated as simply dephoneticization processes. This will not suffice here. It must be that getting rid of phonetic content *requires* that all features of C lower to T."

Note:
Whatever the merits of this analysis, it is clear that we are dealing with a prototypical case of syntactic *reanalysis*: First, C is present (and active, and available for syntactic operations/constraints), and then, C is gone (hence invisible for subsequent operations/constraints). All of this happens to one syntactic object. This is different from the Gazdar/Grimshaw approaches where the smaller (complementizer-less) structure is independently generated; and it is radically different from most other approaches to complementizer-trace effects where the CP structure as such is maintained even if C is not phonologically realized.

Outlook:
Reanalysis in derivational approaches to syntax:

1. There is some derivational stage Σ_i where
   [$_\alpha$ ... [$_\beta$ ...] ...]
2. There is some derivational stage Σ_j, j>i where
   [$_{\alpha'}$ ... [$_\beta$ ...] ...], and α' ($\neq\alpha$) has the same structural relation to β as α.

Hypothesis: $\alpha(')$, β have to be extremely local (Strict Cyclicity)

References

Chomsky, Noam (1975): *The Logical Structure of Linguistic Theory*. Plenum Press, New York.

Chomsky, Noam (1981): *Lectures on Government and Binding*. Foris, Dordrecht.

Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge, Mass.

Chomsky, Noam (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.

Chomsky, Noam (2008): On Phases. In: R. Freidin, C. Otero & M. L. Zubizarreta, eds., *Foundational Issues in Linguistic Theory*. MIT Press, Cambridge, Mass., pp. 133–166.

Chomsky, Noam (2013): Problems of Projection, *Lingua* 130, 33–49.

Chomsky, Noam (2014): Lecture 4. Class Lectures, MIT, May 19, 2014 (31:00-48:00). Available from: http://whamit.mit.edu/2014/06/03/recent-linguistics-talks-by-chomsky/.

Chomsky, Noam & Howard Lasnik (1977): Filters and Control, *Linguistic Inquiry* 8, 425–504.

Chomsky, Noam & Howard Lasnik (1993): Principles and Parameters Theory. In: J. Jacobs, A. von Stechow, W. Sternefeld & T. Vennemann, eds., *Syntax. Ein internationales Handbuch zeitgenössischer Forschung*. Vol. 1, de Gruyter, Berlin, pp. 506–569.

Gazdar, Gerald (1981): Unbounded Dependencies and Coordinate Structure, *Linguistic Inquiry* 12, 155–184.

Grimshaw, Jane (1997): Projection, Heads, and Optimality, *Linguistic Inquiry* 28, 373–422.

Haegeman, Liliane & Henk van Riemsdijk (1986): Verb Projection Raising, Scope, and the Typology of Rules Affecting Verbs, *Linguistic Inquiry* 17(3), 417–466.

Hornstein, Norbert (2014): Final Comments on Lecture 4. Faculty of Language Blog, Monday, August 4, 2014.

Pesetsky, David (1995): *Zero Syntax*. MIT Press, Cambridge, Mass.

Sadock, Jerry (1991): *Autolexical Syntax*. Chicago University Press, Chicago.