

NOTES ON SESSION 4 (17.11.2008)

We went on being mind-boggled by Chomsky's 1993 text. Just to be jumping ahead a bit: We finally reached page 24. After four sessions and so many thoughts that went into all this!

Recall what Chomsky's programmatic article is all about: *finding arguments that would render an abandonment of Deep- and Surface-Structure possible*. On page 19, Chomsky starts out with questioning the interface level of D-Structure. Fortunately, this is also taken up by Hornstein et al. (2005), especially in the chapter labelled *Rethinking D-Structure*. Since Chomsky just assumes and presupposes the reader to be familiar with the general principles of **Government and Binding Theory (GB)**, some of his arguments simply do not get across when such a background is not present. Let me therefore take a closer look at *Understanding Minimalism* (UndMin).

D-Structure in GB

“Substantively, DS can be described as the level where lexical properties meet the grammar, so to speak” (UndMin: 48). The two grammatical modules that are most relevant there are **Theta Theory** and **X'-Theory**. **Recursion** also holds in DS. Phrased differently, DS is responsible for the fact that we can have infinitely long sentences (in principle) and that we can (again in principle) have infinitely many embedding structures. Theta Theory is a bit more tricky, but essentially phrased, it accounts for the semantic relations (**Θ-roles** etc.) that are given and determined in DS. The X'-format should be trivial by now.¹

Counter Arguments against DS

One of the weaker counter arguments against DS is that one can have Recursion without the necessity of locating it within DS. It is simply replaced by the operation *Merge* in a more Minimalist setting. Hornstein et al. write: “[...] let's just assume that Merge takes two syntactic objects and forms a new syntactic constituent out of them” (UndMin: 49). Once upon a time, recursion must have been captured without any mention of DS.² In some sense, we now

¹ I just wanted to use the word “trivial” at least once in relation to the things we do. Of course, it is always relative.

² This must have been something like the *LSLT* or something along this more mathematical train of thought.

seem to return to this earlier stage – although with more modern (i.e. Minimalist) implications.

One of the much stronger arguments comes from so-called **raising** and **control constructions**. The defining difference is essentially:

Control versus Raising

The subject of a control structure is understood as playing a semantic role with respect to both the control and the embedded predicate, whereas the subject of a raising structure is interpreted as playing only a role associated with the embedded predicate. (UndMin: 50)

This abstractly could look like (1) for a control structure and like (2) for a raising construction.

- (1) [_{Matrix} Θ_i ... [_{Embedded} Θ_i ...]]
 (2) [_{Matrix} Ø(Δ) ... [_{Embedded} Θ ...]]

In (1) there are two Θ-positions associated with the subject and in (2) there is only one such position, which can nicely be demonstrated via filling out the matrix empty category with an expletive expression *it*. If we now take a look at the DS representation of a control structure in (3), a problem immediately springs to our mind:

- (3) [_{Matrix} Θ_i ... [_{Embedded} PRO-Θ_i ...]]

Why should we postulate such a thing as PRO? Answer: “Because traces are by definition produced by movement and DS is taken to precede all movement operations” (UndMin: 52). In (2) we have to assume an empty “whatsoever” into which later at SS, the subject of the embedded clause is moved.

The Minimalist view now assigns semantic (i.e. Theta-Criteria) completely to LF. Because of the **Projection Principle** it can be argued that:

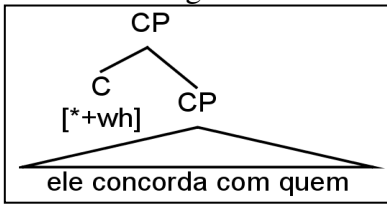
In particular, the thematic relations encoded at DS are a subset of the ones encoded at LF. [...and that] the Theta Criterion holds at the conceptually required level of LF. (UndMin: 54)

Put a bit sloppily, the Projection Principle requires that Θ-information be preserved throughout the course of the derivation. What now seems to happen is that this information is carried up and away until it reaches LF, rendering the semantic argument in favour of DS invalid. The thing simply being that you cannot move an element into an argument (i.e. Θ-related position). In DS, this was solved by inventing PRO, in MP, this can be solved by TRAP (UndMin: 54). Θ-positions are assigned under Merge, never under Move.

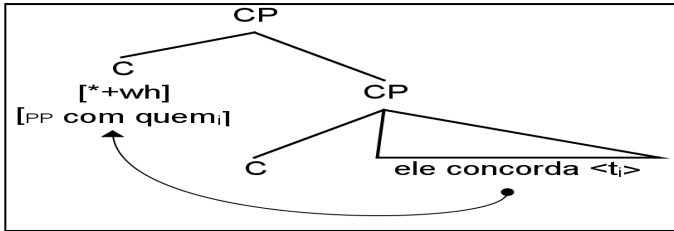
Note that only because Θ-related issues are connected strictly to Merge, this does not mean that we could not have the operation Move interspersed. Interesting pieces of evidence here come from operator movements in relative clause constructions.

Movements, Mergings, K, K¹ and K*

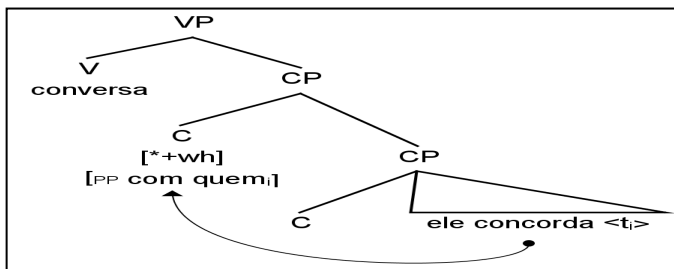
Let me dwell on UndMin: 61, (88) a bit. (88a) should look something like the first tree.



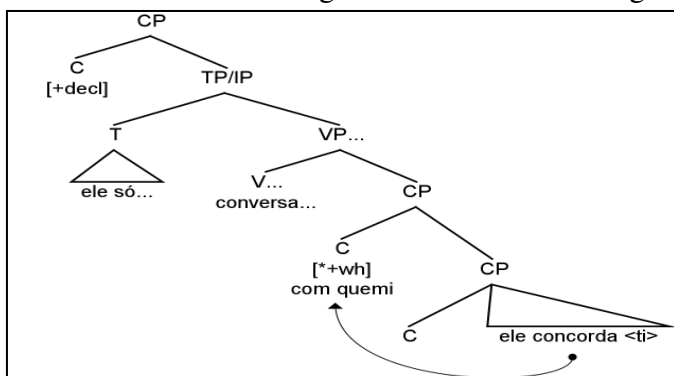
This stands basically for *he agrees with who* in English. In (88b), the PP *com quem* moves and satisfies the strong *wh*-Feature on the CP head C. Looking something like this: The whole tree is enlarged by the application of



the operation Move. Recall that movement into argument position is not possible, and as far as I can see the C head is not an argument position, but here starts what we called in one session the “discourse domain”. Now the V *conversa* is merged yielding the next structure:



Further merging applications result in the last tree as shown here: The resulting CP translated into English



is: *He only talks with who he agrees (with).*³

What we here do is that we essentially extend root syntactic objects. The so-called **Extension Condition** is mentioned on page 63: “Overt applications of Merge and Move can only target root syntactic

³ I am actually not sure about the preposition in brackets. Hornstein et al. believe the bracketed version to be the canonical one (?).

objects.”⁴ It is now exactly this which Chomsky means when he writes about K, K¹ and K* on pages 22-3. The crudest level of “down-to-earthness” would be to say that *thereby slots are created into which syntactic object can be moved*. Chomsky only does this using the notions of **generalized transformations** (GT) and **phrase markers** (K) – for some weird reason of mathematical explicitness.⁵ What Chomsky actually means on page 22 will later become known as **cyclicity**. This means that if you want to move a syntactic object, take the deepest embedded one and apply the operation Move. As mentioned, this applies to so-called root syntactic elements. “[...] a root syntactic object is a syntactic tree that is not dominated by any syntactic object” (UndMin: 62).⁶

The next time, we should be looking into arguments that question the validity of S-Structure – again with the help of UndMin.

⁴ What would happen in covert instances of movement, e.g. covert movement in LF? Does this condition hold there, too? It would really be nice if we, during the course of the SRC could mention this once.

⁵ Dear Noam, don't take it personally.

⁶ Maybe we could exemplify this further.