NOTES ON SESSION 11 (12.01.2009)

On the agenda for that session was Chomsky's BPS chapter four called *"PHRASE MARKERS IN A MINIMALIST FRAMEWORK"*. We already talked about some of the aspects the session before that, especially with regard to the structure presented in tree (4) on page 398. With

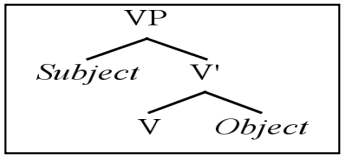
XP = {x, {{z, {z, w}}, {x, {x, y}}}},

the, in Chomskyan terms "informal" representation in (4), is made maximally explicit. In a rough equation, what formally was known as the **node** of a tree is now called a **term**, in the sense that the term is part of the formal representation, not the informal. Let us say that (4) is created via the operation *Merge*, the next question would naturally follow: How could one take account of the operation *Move*? For this, Chomsky assumes the PREDICATE-INTERNAL SUBJECT HYPOTHESIS (PISH) and shows how from there particular movement operations can arise. Now what was PISH, again?

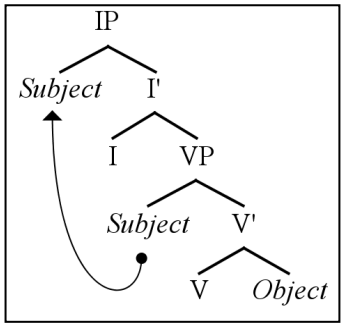
In UndMin: 81, we find:

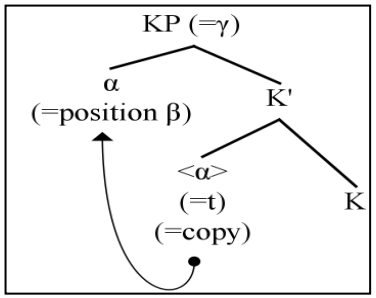
> If we assume that all Θ-roles associated with a head H are assigned within projections of H, then it is reasonable to think that external arguments are generated in the specifier of the lexical head with which they enter into a Θ-relation. Let's refer to this hypothesis as the *Predicate-Internal Subject Hypothesis (PISH)*.[1]

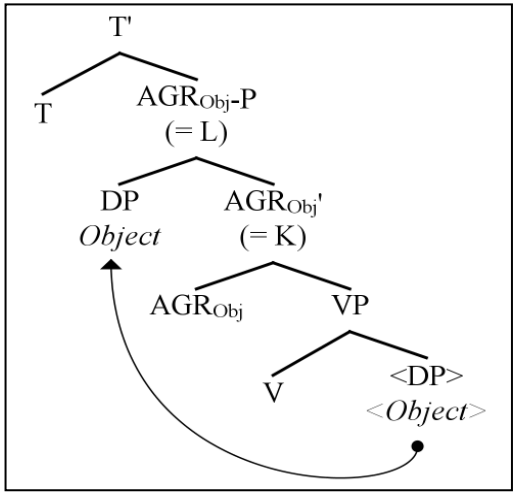
A PISH structure would look like given in the following:



The arguments in favour of this structure shall not concern us here – with Chomsky we assume it. If now [SPEC, VP] = *Subject* is raised to, say, receive its inflection at the I-node, this process is called **substitution** by Chomsky. What happens concretely is in the next graph:







Further (inflectional) elements are added and the operation *Move* takes place. Chomsky phrases this in a more opaque manner in that mathematical rigidity are his foundational pillars. The whole tree is called ∑, and the terms are called K and α. A graph would look like the one below.[2] I tried to include all of Chomsky's different labels for the particular terms in the phrase marker. With every operation, they seem to change their names – again, one wants to say, for the sake of consistency it is not totally thought through. Anyway, what appears to be important is that ***substitution opens intermediate projections***. Also of importance is that α only moves to satisfy its own properties. This is Greed in the technical sense:

GREED:
Move raises α to a position β only if morphological properties of α itself would not otherwise be satisfied in the derivation. (BPS: 400)

So much to creating [SPEC, K] via **substitution**. There is, however, another operation called **adjunction** that differs from substitution. But just for the sake of the substitution operation, let me conflate (10a), (10b) and (11) (BPS: 401-2). The graph is given next to this:

[1] The footnote tells us that this hypothesis came up as early as 1982.

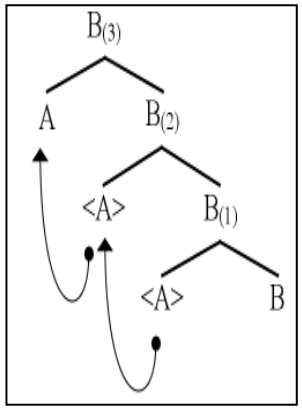
[2] α here does not start out from any kind of specifier position. I decided to let it start out from there because order is not relevant to this kind of depiction. α could readily start out from the "right" position causing no problems.

In fact, this is just what happened in *Subject* raising to [SPEC, IP], only that it is now standard *Object* raising to [SPEC, AGR_{Obj}]. It is just too unfortunate that Chomsky makes his trees sometimes look like normal adjunction structures. He numbers the affected labels which make them look like a two-segment category. His notation just does not makes the fact crystal clear that there is a fundamental difference between ***categories in substitution*** and ***segments in adjunction***. So here we turn to **adjunction**.

The central point of difference seems to be in the following:

> Adjunction differs from substitution, then, only in that it forms a two-segment category rather than a new category [e.g. γ]. Along these lines, the usual properties of **segments vs. categories**, **adjuncts vs. specifiers**, are readily formulated. (BPS: 402, my emphasis)

If we return to the abstract representation including K, the adjunction looks like this:



This is what Chomsky describes on page 402. Only that I here took the freedom to make this adjunction into a **three-segment category**. The heads in this case are all $B_{(3), (2), (1)}$. If we now want to describe the whole tree – Chomsky uses the label Q – in a formal manner, then the label is not simple any more but an ordered set of the labels of B. It follows for this three-segment category:

$Q = \{<b_{(1)}, b_{(2)}, b_{(3)}>, \{A, B\}\}$.

Note that the bracketed numbers are just a tracking device introduced by me. I am actually nor sure whether the ordering given in Q is correct. Note also that for an n-segment category, notation is easy:[3]

$Q = \{<b_{(1)}, \ldots, b_{(n)}>, \{A, B\}\}$.

The terms of Q remain A and B.

Doing this, one question came up: ***Can the segment chain (nothing to do with "copy chain") be disrupted? Could, e.g., $B_{(2)}$ later be taken out of the tree and moved to some other position higher in the tree?*** We were not sure, but I suggested that thereby maybe problems might arise[4] that have to do with the domains formed by the three segments.

Some further probes into chapter five were made. Introducing five amounts to the very general leading question of how one could restrict movement and/or only allow the movements that do not lead the derivation to crash. Now, what Chomsky attacks is the so-called STRUCTURE-PRESERVING HYPOTHESIS (SPH) by a person named Emonds. If I remember correctly, what Emonds says is that, for instance, **SPEC projections are there all along, prior to any substitution movement**. Remember that substitution would create SPEC slots "on the move", so to speak – we would like to have it done via derivation "online".

Another point is that we should closely look into the **features of pre-spell-out and post-spell-out syntactic movement processes** (especially BPS: 405). We already saw that post-spell-out covert syntax can do more that overt syntax: For instance, I think Benni reminded us of the EXTENSION CONDITION not holding in covert post-spell-out syntax. ***Now, what are really the substitution and adjunction differences in covert and overt syntax?*** A though question, but surely at least answerable in a table-like fashion.

[3] I just wanted to try this out, not knowing whether it can be relevant in any interesting sense. At least formally it seems to be doable.

[4] Note the hedgy style.