

## Remarks on Session (#20)

Since Michael's handout is truly optimal I can here only speak of some of the problems we faced when working on 4.3 through to 4.4.3.

One question immediately posed was: **Why are intermediate projections not visible at the interfaces?** Here, visibility at PF was mainly what was at stake. My rather bold answer was that there is no more any intermediate projection (cf. CT: 249). Bar levels never occur in formal notations. Bar levels are ancillary informal notations. I do not know whether this satisfies Michael's inquisitive mind.

Another opaque thing to us was the **"copy into-nation"** example on page 252. Chomsky refers the reader to pages 125-6 of chapter one of *the Minimalist Program*. The example is identical to (16) (a).<sup>1</sup> The **"parallelism requirement"** now states that the same conditions hold for Bill as for John. This means that the pronoun of the non-deleted version refers to Bill and that the NP *a cat* be of non-specific nature – clearly an LF phenomenon to Chomsky. But it should also be clear that the deletion of the bracketed material in (16) (a) is a PF-related process. So, Chomsky writes:

"[T]he bracketed phrase has a distinguished low-flat intonation. That property, we assume, is determined within the PF component" (CT: 126).

Essentially, this case shows to us PF and LF should interact in a much more dynamic way. A simple split at spell-out inhibits such an interaction – a first step towards multiple spell-outs?

And one more aside: Regarding F checking, we normally would like to have local checking constellations – but the most local one [H-COMP] is ruled out. Well, we are assumed to know this, but why is this so? One partial answer to this riddle could be: If Fs trigger movements and if all of the Fs can be checked (and deleted) under [H-COMP] constellations, then no movement at all would take place. This is not what we normally see in (Human) language – maybe heated Saturnian would be different.

Here, just to finish off Chomsky's elaborations on why moved elements never project, let me shortly

<sup>1</sup> Why he refers to Bill as Tom is dark to me, perhaps just a "labelling" mistake.

have a look at Uriagereka 1998: 352.<sup>2</sup> The examples are:

(i)  
[I'm afraid that [[this government]<sub>t<sub>max</sub></sub>] [I dislike t<sub>max</sub>]].

(ii)  
[[them]<sub>t<sub>max</sub></sub>] [I dislike t<sub>max</sub>]].

(iii)  
\*[the]<sub>t<sub>max</sub></sub> [I dislike [t<sub>nonmax</sub> government]]].

In (i), the CH is uniform with regard to the formal/categorial informational content of chain elements (cf. **Condition on Chain uniformity (CCU)**, Uriagereka 1998: 355). (ii) is of the same status. In (iii), however, the trace is a nonmaximal projection (a head) and if *the* was projecting, then the structure would be something like a DP, which it is not; we suspect (iii) to be a CP or something along these lines. But if *the* does not project, then it is *the*<sub>t<sub>max</sub></sub>. This breaks the uniformity to its trace which is t<sub>nonmax</sub>. This makes that fact clearer that only maximal projections can be moved elements, since nonmaximal projections, per definition, do project.

I believe more by Uriagereka is to come, but for now, let's move on to Chomsky CT - 4.4.4.

### CT - 4.4.4 Move F

As the title here intuitively suggests, this chapter outlines possibilities of letting only particular Features (Fs) from the formal feature matrix (FFM) move. As is done nicely and very helpfully in Uriagereka (1998: 250 ff.) a LI comes with three feature matrixes: *book* [<PFM>, <SFM>, <FFM>].

"The A/P interface cares about PFMs encoding sensorimotor instructions; the I/C interface cares about SFMs encoding God knows what sorts of instructions [sic!]; and FFM are relevant only to the syntax proper" (250).

In the overt part of the derivation, a F "pied-pies", so to speak additional featural information in order for the derivation to converge. This is spelled out in (26) (CT: 262). Generally, movement that takes place prior to spell-out, this means overt movement, targets more or less complete LIs. Covert movements, i.e. "invisible" movements may target a particular F from the FFM (also a notation:

<sup>2</sup> URIAGEREKA, JUAN (1998): *Rhyme and Reason. An Introduction to Minimalist Syntax*. Cambridge, Massachusetts: The MIT Press.

Especially important for our present purposes seems to be chapter five: "The Fifth Day: Chains and Their Checking Domain".

FFM[F]). In fact, Chomsky is rather explicit in that he says **covert operations target FFM[F] exclusively**. As it is said that overt movement targets whole LIs, this may become more interesting when polysynthetic languages are concerned. It could be the case that PF requires F to move overtly, while FFM may stay in situ. In morphologically rich languages this would not be an unimaginable phenomenon. In covert raising, Chomsky says that there are strong empirical reasons to assume such a thing. This boils down to (28) (CT: 265).

Now, one interesting point is also: How are Chains created? As we know, moved LIs create Chains ( $CH_{LI} = (LI, t_{LI})$ ). The idea is now that also F creates Chains ( $CH_{FFM} = (FFM[F], t_{FFM[F]})$ ). If we assume such a single FFM[F]-raising in the covert component, then some scope-related problems might be resolved. Chomsky refers to chapter 3.5 and the phrase *how many pictures of John*. We assumed that only the operator *how many* raises covertly and the rest stays in situ. Even this could be boiled down to the following:

“A natural extension of that analysis is that only the *wh*-feature raises in the covert operation, the rest of the phrase remaining in situ” (CT: 266).<sup>3</sup>

Since the problem with Chains always is that their behaviour must be governed by some principle, in this case the **Minimal Link Condition (MLC)**, it is not clear if  $CH_F$  is also subject to such a constraint. Chains are generally sensitive to the categorial statuses of the moved elements and the traces thereof, be these  $X^{\min}$  or  $X^{\max}$ . The **CCU** is essential here. **The big problem is just that Fs are not heads in the traditional sense of the word.** To my mind it would sound at least odd to say  $F^{\min}$  or  $F^{\max}$  (cf. also CT: 270).

Anyways, that Fs must match is a commonplace to us. Chomsky basically says this in that he introduces the notion of the **sublabel**. The definition is in (30) (CT: 268). Chomsky:

“When Move F raises F to target K, some sublabel of K must legitimize the operation by entering into a checking relation with F, and features of FF[F] may also enter into checking relations with sublabels of K as free riders” (CT: 269).

Iwo: FFM[F] must match. If more can match then good. As far as I can see, **Fs are both in the**

**moved element and in the target.** More on this is to come in CT 4.5 (on checking theory).

One more note on page 270. As I understand it, Chomsky would like covert F-raising to be exclusively adjunction and not substitution. The reasons I do not totally understand:

- (i) Only  $X^{\max}$  may be SPEC of K.
- (ii) F not defined for  $X^{\max}$  (as discussed above).
- (iii) Since in adjunction, the moved element always is non-projecting, this to me means  $X^{\max}$ , then why can F adjoin if not defined?

Perhaps this is some new type of adjunction? This adjunction creates some [F + Head] relation, where F is in the checking domain of category Head (cf. CT: 271).

“Assuming this, we conclude that pure feature raising – hence all covert raising – is adjunction of a feature to a head, which projects” (CT: 271).

#### **4.4.5 Covert Raising**

This part of CT could, with reservations of course, be called empirical. Since this is not the place for me to go into the examples, it shall be outlined that, speaking on the broadest basis many instances of language variation could possibly boil down to overt movement of LIs and covert movement of FF[F]. In languages where the Subject moves overtly, SVO is the result, in languages where it is done covertly, FF[F] adjoins to I/T to satisfy the EPP, resulting in VSO.

In English expletive constructions, one can interpret the expletive as satisfying the EPP overtly, while the copula's sensitivity to  $\phi$ -features is matched by a covert raising of FF[F:  $\phi$ ] of the expletive's associate. *There* then would be [SPEC, I/T] and FF[F:  $\phi$ ]<sup>4</sup> just an adjunct. This is just one instance where the assumption of covert F-raising would explicate why the copula should agree with the semantic (or logical) subject at all and why sentences such as *\*There are a book on the table* are ungrammatical.

It would be nice if we could discuss **L-relatedness** (cf. Chomsky 1995: 64) and the relevance for features of **A- and A'-positions**.

<sup>3</sup> I do not know what kind of feature raises in, say, quantificational phrases such as *all of the pictures of John*. It probably would have to be something like a universal quantifier ( $\forall$ ).

<sup>4</sup> Note that this notation does not indicate *feature valuation*, which works differently. It just says that the formal feature is a  $\phi$ -feature.