

NOTES ON SESSION 10 (05.01.2009)

We embarked on the initial stages of discussing Chomsky's article called *Bare Phrase Structure* from 1994 (BPS). In a somewhat follow-up article to Chomsky (1993), this article spells out some of the vagueness left behind in 1993 – so it really can be seen as being in line with the thinking of the 1993 article.

Starting off the text, Chomsky outlines some of the historical background on which his current (1994) reasoning is based. As usual, the first couple or so pages are a more or less familiar and one would even say “easy” read – if this phrase may be applied here at all – and the following pages take off tied to an exponential curve of complexity.

Ever since the earliest approaches to **Generative Grammar**, one of the central problems was to resolve the tension between **descriptive** and **explanatory adequacy**. Recall that a theory of language is descriptively adequate if it accounts for the phenomena of a particular language and explanatorily adequate if it explains how knowledge of that particular language arises in the mind of a speaker-hearer (cf. BPS: 386). In another phrasing, Chomsky says that

“[to] attain explanatory adequacy, a theory of language must characterize the **initial state** of the language faculty and show how it **maps experience** to the state attained” (BPS: 387, my emphasis).

The descriptively adequate theory of language describes the final state of an individual grammar of a given language; the explanatorily adequate theory of language describes the initial state of a universal grammar and how this initial state is mapped onto an individual grammar.¹ For reasons relating to the poverty of stimulus argument and

¹ Or vice versa, I believe. The question being how experience is mapped onto the initial state and from there a final state grammar is produced.

the comparatively rapid speed of language learning, the working hypothesis is that the **initial state is non-null**. As far as the generative paradigm is concerned, the null initial state hypothesis would not be able to account for the rich linguistic output of a child. There must be something which is, via experience, triggered and then becomes highly prolific.

One of the corner stones of the generative view on language is that there is only one single computational system for human language called C_{HL} . C_{HL} is not concerned with the variability of semantic fields and more general questions of the lexicon. What the **I-Lexicon** (Michael) does is of no concern to C_{HL} . But then one could pose the question (Neven) of why we normally take the Lexicon and the Syntax together and equate it with the **Faculty of Language (FL)**?² Could we not just leave the Lexicon all to itself and work with the much more relevant Numeration (Num)? The Lexicon is always idiosyncratic, whereas C_{HL} appears to be uniform across the board.

The broad design of the Minimalist Program (MP) has become familiar by now, I think: Y-model with PF-LF split after spell-out, corresponding to overt and covert syntax, respectively. C_{HL} is taken to be highly derivational being subject to bare output conditions of the relevant interfaces. So much for the broad design features of the MP.

The broad design of the C_{HL} itself is presented in the following chapter. Crucial here is Num and its being indexed. Let's have a look at (1):

- (1) (a) Jim kicks Jack.
 (b) Jack kicks Jim.
 Num = {kicks₁, Jim₁, Jack₁}

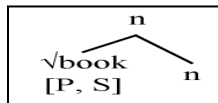
² I leave aside here the famous distinction of FL(N) and FL(B), sticking more or less to the first.

At first I thought it a problem to have one and the same Num leading to two distinct utterances of two distinct propositions. But then nothing is wrong with this state of affairs: Both **correspond to the fixed reference set A (cf. BPS: 393) and are the optimal realizations of the given interface conditions**. So there should be no problem here. Now on to (2):

(2) I_p saw the man_q [with binoculars]_{p/q}.

This sentence is ambiguous, and this ambiguity should be reflected in Num. How is at the moment not clear to me since in both readings *with binoculars* is an instrumental adjunct or something of this sort. It could become even more confusing: What if two distinct Numerations could yield one and the same output? Andreas and I could not think of an example – maybe in a coherent syntactic theory such a thing should be impossible.³

Now on to some more notes on the nature of Num and the lexical entries contained therein. According to Chomsky, each lexical entry within Num has the form {P (= phonological features), S (= semantic features), F (= formal features)}. Now, during the course of the derivation, all the features are eliminated; that means that, e.g., the nominal feature [\pm N] is interpreted at LF and then deleted *at* LF.⁴ Let me stick here to the formal nominal feature [N]. In an emended approach called **Distributed Morphology**, the assumption is upheld that lexical entries are **barest roots** marked by $\sqrt{\quad}$. It roughly has the form {P, S} and F is attributed to it via a Merge operation. So the bare root $\sqrt{\{P, S\}}$ is merged with n , v or a . This could look like the following: The lexical item *book*



³ It is trivial to say that in diverging views on the syntactic system and hence the way Num is built up such a phenomenon *is* possible. One assumes n and the other does not, that would be it: different Numerations, same output.

⁴ The phrasing is always a difficult task: *at* and *by* are certainly right, but do not really capture the ongoing, e.g., at LF. Here, our Lexicon seems to be at least slightly “imperfect”.

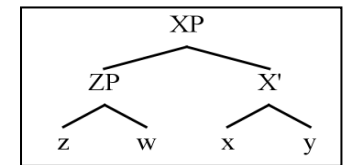
receives its categorial status via merge with the functional head n ; this is an adjunction operation. So much for the formal features. As it stands at the moment, P and S features are inherent to the lexical entry and are not assigned to it via a merge operation – thinking differently is not ridiculous but rather far-fetched.⁵

Via the operation Merge, Phrase Markers are built. Now, typically, Phrase Markers have Heads that project. The relations are given in the following graph:

$ZP = \{z, \{z, w\}\}$,

$X' = \{x, \{x, y\}\}$,

$XP = \{x, \{\{z, \{z, w\}\}, \{x, \{x, y\}\}\}\}$.



This is the maximally explicit formulation with all the terminal elements and labels. I believe the bracketing should be correct. For understandable reasons, often the abbreviated forms are used. The question now was whether it is **just notational convenience to shorten the given sets or if there is more to it?** The question came up since the derivation later on can not “look into” its own history, so to speak and normally builds on the topmost label. The whole derivational history is not always present to the computation.

⁵ How to implement merger operations of P and S features remains a mystery – the crystal around which concepts grow of necessity?