

SCIMS: Summary of the 2nd Seminar Session on March 14, 2008 I

Intro (*the first 3 pages were written on the 14th, page 4 on March 19*)

Today we were eleven: me, Beni, Dario, Diana, Izabela, Iwo, Natalia, Neven, Peter, Richard, and Sebastian. Ulrike and Lena have told me they are no longer able to participate, but I will keep them in the mailing group since they continue to be interested in what we are doing.

I have sent invitations to part of the staff of the IÜD, the Romanische Seminar, the Germanistische Seminar, the Philosophische Seminar and the Computer Linguists. And to Beni, who is a computer linguist and who indeed showed up and contributed a lot!

I have announced to people that I take *applications till the end of March*. So continue to spread the message; I'm attaching the latest version of the poster. Our future schedule as far as it is already fixed:

- Saturday, March 15, 11 AM to 4 PM, break from ca. 13:15 to 13:45
- Friday, March 21, 1 to 3 PM
- Friday, March 28, 1 to 3 PM
- Friday, April 4, 1 to 3 PM

We need to discuss the weekly dates and possible block seminar dates for the time after the semester begins (on April 8, if I remember well)

The Plan for Saturday, March 15

Two people will probably be unable to come before 12. So the first hour should basically be devoted to *remaining questions* from today and also, I would suggest, a short discussion of the *analysis of the gerund* I gave in my last summary.

The rest of the block should be devoted to a very straight discussion of chapter 2 along the text. *Please do have a look at the handout Adger himself produced for this chapter.*

Some Remarks on the March 14 Session I

Let me start with a few remarks about two of the questions we were discussing towards the end, namely, 1) *methodological* minimalism vs. *substantive* minimalism, and 2) the *architecture of the linguistic system*. *You will find ore remarks on a central question we discussed on p. 4.*

a) Minimalism

Methodological minimalism was summarized well by the medieval philosopher *William of Occam* (1288 – 1347): “Entities should not be multiplied without reason,” or, for short: “no superfluous entities.”

Since scientific theories consist of such “entities” *and* the postulated relations between them, and extended version of Occam’s maxim will add to this, “no superfluous relations.” Slightly rephrased in linguistic terms, we thus have the EOP (Extended Occam Principle): *“Minimize the number of entities and of the rules holding between them.”*

So if linguists try to follow that principle, this is no specificity of linguistics. Whether it’s physics, chemistry, biology, or linguistics, *you try to keep your theory as simple as possible*. The law of gravity, $g = 9,81 \text{ m/s}^2$, would be one example for this, but the same is true for all sorts of other

laws. There is no simpler formulation of the law of gravity than the one given above, and the same holds, presumably, for other laws.

On the other hand, there is the realm of *empirical facts*: **Reality may not be simple**. To give an example, for a while it was thought that the number of elementary particles reduces to neutrons, positrons, and electrons, but to the dismay of some physicians, there turned out to be many more.

But even if reality turns out not to be simple, our theories should still give the simplest possible description of it.

Suppose we have an arbitrary array of facts – “data” – we want to give an accurate description of. Regardless of whether these facts are relatively simple or messy and convoluted, if we can get away with the postulation of *n entities instead of n+1*, we settle for n, and if we can get away with only n rules, we keep it at that and don't postulate n+1.

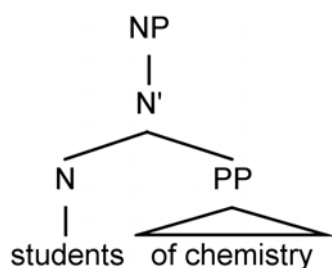
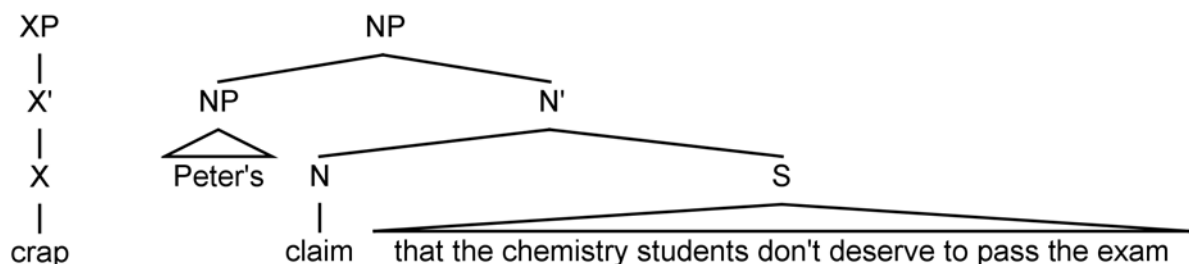
The question of substantive minimalism is the question of the *relative simplicity of the facts themselves*. One question that arose in generative grammar in the 1960s and 1970s was, how many rules do you have to have to describe a particular language? The answer was, invariably, very many – and significantly, *too many to be learnable* for the child learner in the time available to him or her. In a way, that was the driving force behind a search for *substantive minimality*, that is, simpler actual systems that might be learnable.

Now some of these many rules would concern the makeup of phrases such as NP, VP, AP, AdvP, PP, and so on – each phrase did not have just one, but several rules to describe how it could look like. The attempt to get rid of that problem led to the development of *X-bar-theory*, which basically say that all phrases are made up of the same elements: **head, complement, and specifier**.

So instead of different rules for each phrase you had one format for all of them:

- 1) $XP \rightarrow (\text{Specifier}) + X'$
- 2) $X' \rightarrow X + (\text{Complement})$

The bracket around “Specifier” and “Complement” says that these are optional. Whether they are present and if so, what they are, is determined by the element X itself (we will shortly discuss in class how these are different):



I will skip over many details of the concrete implementation of this proposal here; the point is that we are making a substantive claim about the organization of the linguistic system.:

Particular rules for NP, VP etc are just illusions and don't really exist in the syntax; what actually exists is much simpler, namely, the X-bar format which is *valid for all phrases*.

Later on, this X-bar format was elevated into *a principle*, that is, the X-bar format didn't have to be learnt, but was now considered to be part of the Language Acquisition Device LAD, also called UG.

So this would be an example for a move towards *substantive minimalism*:

The claim the system itself linguists tried to describe was simpler as had been assumed before.

Architectural questions

This was the last question we addressed: How does the linguistic system as a whole look like? I was talking about phonology, morphology, and the lexicon, in addition to syntax, and Iwo, rightly in my view, objected that morphology and phonology should – at least partly – be treated within the lexicon, since the *items contained in the lexicon, words*, are made of morphemes and of course have phonetic features.

So if we say that *a language is a system that relates sound and meaning*, this already starts with individual words and the system that contains them, the lexicon. As we know from de Saussure, words themselves are sound-meaning relations. Syntax serves to structure these sound-meaning relations into larger sound meaning relations.

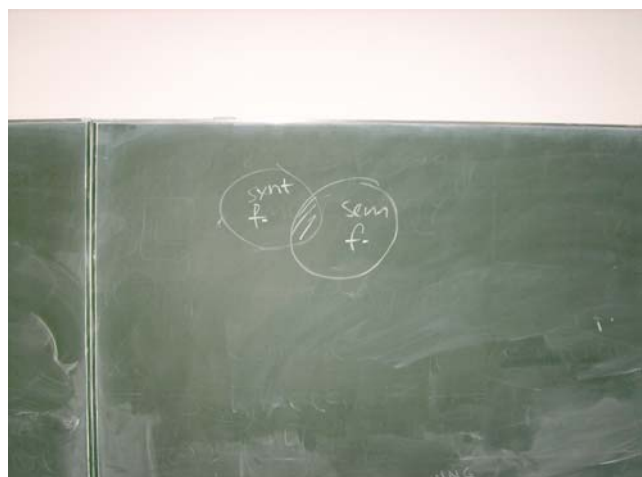
For our purposes, doing syntax, we can abstract away from most of *phonology* (with certain exceptions, which we will talk about), as well as from (much of, with similar exceptions) *derivational morphology*. For the moment, let's constrain our architectural considerations to the proposition:

Syntax takes the particular sound-meaning relations called word out of the lexicon and forms larger sound meaning relations called phrases, clauses, and sentences from these.



A sound-meaning configuration made up of individual sound-meaning units, with Peter already absent from the lexicon and Diana simulating an empty category

We will explore the meaning of this enigmatic drawing while discussing chapter 2



Some Remarks on the March 14 Session II

I am adding these additional notes on March 19. For March 14, we had planned to take up 4 questions, namely, the two treated above (minimalism and the architecture of the system) and the question of the $+/-N$, $+/-V$ featural system as well as the so-called *argument of the “poverty of the stimulus” (POS)*.

I still had very little to say about the feature system since I’m still studying the literature. But a preliminary assessment would be that even though this particular system is often mentioned, it seems to be *rarely put to productive use* in analysis.

The other very important question we discussed was POS argument. POS is often said to be the argument in favor of the “nativist position.” In order to evaluate it, we thus first to have an idea about *what that nativist position is*, and on closer inspection, it turns out that the concept is quite elusive. In a sense, everyone is a nativist since no one in the world assumes *that there is NO genetically fixed (“innate”) mechanism* that enables us to learn language.

For that reason, Chomsky even goes as far as calling it a “very curious debate, with one side vigorously attacking the nativist position and no one defending it” (I’m quoting from memory), but that is hyperbole: many linguists or philosophers (Chomsky specialist James McGilvray) explicitly defend a thesis they themselves call nativist.

All the same, the important point to behold is that everyone assumes some innate component in language acquisition. *The real question is what this component consists of.* Just keeping to the question of syntax, it could, in principle, consist of the *generalization mechanisms* postulated by empiricist philosophers, of *neural networks* that do *statistical learning* in some way, or, for example, in a *system of principles and parameters* of the sort assumed in some currents of generative grammar.

If we call that innate component *LAD* (for “language acquisition device”), the task we are faced is thus to develop *concrete hypotheses about LAD* that are *compatible with the data* we know.

Of course, relating data to a theory is no easy task. In particular, there is no general way or rule how to do this. But by now we have rich data from a huge variety of languages that at least tell us something about how LAD might look like. If there are phenomena that are *universally found*, these phenomena are good candidates for being part of LAD. Conversely, if there are phenomena that are *never found*, it was probably LAD that has factored them out.

To give just three examples: 1) *Verbs (V)* and *nouns (N)* are found in every known language. 2) There are *no known verbs that take more than three semantic (or theta) roles*. The core scheme for ditransitive verbs can be described by the multiple question “*who₁ did what₂ to whom₃*” asking about the players that are required by the verb, whereas additional possible players, denoted by the questions “when,” “where,” “why,” and “how” are simply *not part of the equation* (if they are, as in “I filed the book *onto the shelf*,” where a location is given, another player has to go). 3) Syntactic operations refer to hierarchical structure, not linear order (as you see, this is both a positive and a negative universal).

Now what the POS argument boils down to is that the data that the language learner has constitute *too poor a stimulus* for him or her to explain the universals found in language without the additional contribution of LAD. Obviously, this hypothesis has to be checked from case to case, looking both at the supposed universal and the data available to the language learner. Two classical cases of where what is learnt cannot have been in the data are 1) the *systematic “mistakes”* children make, and 2) the *possible mistakes the never make*, such as using rules that refer to linear order instead of hierarchical structure. **Much more about all this will be said as we go along.**