What is supersemantics? – *Philippe Schlenker*

Schlenker (2018) wants to extend the formal machinery of formal semantics to a variety of representational systems.

The **basic 'motto'** of every formal semanticists is that 'the meaning of a sentence corresponds to the conditions under which that sentence is true'. The idea behind Schlenker's approach is that, for instance, 'the meaning of a picture corresponds to the condition under which that picture is true'. In particular, he discusses the case of iconic semantics, gestures, pictorial semantics and music semantics.

In general, we appreciated this unorthodox way of thinking and the examples that he discusses.

We then considered the *complexity* of these different representational systems. As people interested in languages, we normally consider language to be something unique to humans, and in this sense more complex than other representational systems. However, if we just consider visual narratives, we immediately understand the combinatoric complexity of such cases is extremely greater, and yet we are able to process it coherently.

We observed that Schlenker uses the same notions that we normally adopt in formal semantics to deal with other, possibly more complex, representational systems. We believe that there was a kind of **terminological** issue here. To appreciate this, let us consider another example, which Schlenker does not discuss. It has been shown (e.g. Giraud and Poppel 2012) that cortical (theta) oscillations are highly correlated with the syllabic structure of words in sentence production tasks. Does this mean that we can use the formal tools or notions commonly adopted in phonology to deal with brain oscillations? Probably not, what we need is a general theory which tries to link coherently the ontologies posited by the difference disciplines. So, Schlenker's approach, trying to look at different phenomena with the notions that we use for modelling spoken language, might be misguided in this sense.

In this regard, we considered the case of **sign languages**. Our questions were concerned with possible links with spoken languages. For instance, does it make sense to think about compositionality in sign languages? What about ungrammaticality judgements, is there something equivalent in sign languages? Are sign languages more complex than spoken languages, and how to measure complexity in this case?

As regards grammaticality, signs might have different functions: a grammatical status (like raising eyebrows as interrogative markers) or a paralinguistic role (e.g. expressing disapproval by frowning one's forehead). There seems to be no-clear 'ungrammaticality feeling' in the case of sign languages. As regards its expressive power, it was noted that order can be more flexible and this allows to express in a more succinct way something that in spoken languages would have required a very complex expression. In this sense, the notion of **simultaneity** plays an important role. Standard measure of complexity of formal languages (e.g. Kracht 2003 – The mathematics of language ; Jaeger & Rogers 2012) do agree that natural spoken language is mildly context sensitive. However, the syntactic rules upon which complexity is measured assume that only one sign (i.e. word or morpheme) can be

computed with another at a certain step. This is clearly not the case for sign languages. Is it possible to come up with a notion of complexity suitable for sign languages and its simultaneity?

The importance of written languages was also discussed, especially given Schlenker's typology of iconic enrichments:

(10) Typology of iconic enrichments (after Schlenker, to appear d)

	External enrichments (= syntactically eliminable)		Internal enrichments (= syntactically ineliminable)	
	No separate time slot: **Co-speech/co-sign gestures**	Separate time slot: **Post-speech/post-sign gestures**	No separate time slot: **Iconic modulations**	Separate time slot: **Pro-speech/pro-sign gestures**
Speech	I will [image] punish my enemy.	I will punish my enemy — [image].	The talk was loooooong.	My enemy, I am going to [image]
Sign	IX-arc-b NEVER [image] [SPEND MONEY]	IX-arc-b NEVER SPEND [image] MONEY]ᵦ — [image].	POSS-1 GROUP GROW_ [image]	[currently unclear]
Meaning	cosuppositions (= presuppositions of a special sort)	supplements	at-issue or not, depending on the case	at-issue, with an additional non-at-issue component in some cases

Written languages are the product of culture, a way of communication which does not require an interaction between speakers. Even so, we considered the case of appositions, which have been shown to play an important role in a multi-dimensional approach to meaning. We noted that this kind of dimensionality distinction is still marked in written languages, by means of commas, signalling the importance of this dimension of meaning.

Lastly, the case of **music semantics** was discussed. Mick, a student of philosophy, participated in our reading group and shared with us his current line of research. In particular, based on previous work by Larson, he is trying to come up with some minimal and primitive elements which can be compositionally combined to give rise to enriched musical meanings. Mick also observed that Schlenker mentions early work on semiotics and Peirce theory of signs, but he does not discuss it in detail. A good reference here is the work by Daniel Everett. (For instance, in this recent article (https://link.springer.com/article/10.1007/s10816-020-09480-9). He tries to show that according to his definition of language, the origin of languages should be traced to homo erectus. However, there is a section where he summarizes his view of Peirce's semiotics and provides some valuable references.)