Spring 2014, LING-232 Semantics B, TuTh 10 am-11:45 am

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Office hours: Tu 1:45 pm-3:15 pm & by email appointment

One of the main goals of the course is to give participants the technical skills to understand the Montagovian solution to the problem of compositionality – that is, to understand how the meaning of a natural language expression is a function of the meanings of its subexpressions and the way they are syntactically put together. To put it differently, we will learn the basics of rigorously designing a syntax-semantics interface in the Montagovian tradition.

Other, related goals are as follows:
- to be able to read technical formal semantics literature by the end of the quarter
- to understand the (overwhelming) similarities and (slight) differences between static and dynamic semantics, and to understand how dynamic semantics can be couched in classical, static type logic to preserve both the Montagovian solution to the compositionality problem and the main insights of the dynamic view of meaning and interpretation
- (we will get to do only part of this) to see how functional programming – particularly with Haskell – is basically lambda calculus that can be executed, and to see how easily and directly semantic analyses can be implemented in Haskell, and sharpened / tested in the process

The materials will include, but will not be limited to: chapters from the textbook *Introduction to Montague Semantics* (Dowty, Wall & Peters 1981), chapters from Kamp & Reyle's 1993 *Discourse Representation Theory* textbook, various journal articles, extensive handouts etc. They will probably be made available on Dropbox – more info by email.

A lot of learning will happen in class: once the basic formal tools and the fundamental conceptual understanding of formal semantics are firmly in place, we will start every lecture with a natural language semantics puzzle and explore various solutions to it in class (and possibly in hw assignments). The emphasis will be on:

- the multiple, crucial decision points we always reach when accounting for natural language semantics phenomena; these decision points are the most important parts of the analysis
- how important it is to master a variety of formal tools and frameworks so that you are able to explore in detail and properly evaluate various alternative accounts
- how unimportant the formal tools and frameworks are, i.e., the ways in which the formal tools are just tools: they should not drive the empirical and theoretical investigation, and technical details – once they are in place – should make room for the proper evaluation of a proposed analysis or range of analyses
- this evaluation should be driven by and emphasize the big theoretical picture and the empirical details – since this is what we, as scientists **studying language**, care about; but the analyses and the evaluation should be formally correct (in addition

to being charitable and open minded) since this is an essential part of what makes us **scientists**.

Evaluation:

At the beginning of every class (unless otherwise specified), a student will present a 10-15 minute summary of the material introduced in the previous class. You can use the blackboard for that. If the instructor determines that using the blackboard is conducive to an insufficient level of task involvement on the part of the presenter and / or the audience, the presenter will have to prepare a short handout (2-4 pages). Handout or not, the audience should be prepared to answer questions about the reviewed material that are asked by the presenter and / or the instructor.

There will be several homework assignments. Their due date will be determined when they are handed out. The assignments will consist of problems in the textbook, or they will ask you to follow up on various strands of analysis based on the in-class discussions. You are encouraged but not required to start solving the problems in the Dowty et al textbook as soon as we are done covering the relevant material.

Typed assignments are preferable, but handwritten assignments are also acceptable. Just please make sure that the text, formulas etc. are clearly written. I strongly prefer assignments that are succinct. If your assignments are too verbose, I might ask you to rewrite them before I read through them. I will sometimes ask you to write up derivations in minute detail, but I will explicitly say so ahead of time.

The review presentations and the assignments will require you to know both the material covered in lectures and the material in the assigned readings. These are related but are not identical, making **attendance absolutely essential**.

You will also be required to write **a fairly short (approx. 10 pages) final paper**. The format of the paper should strictly follow the *Sinn und Bedeutung* guidelines available here (except for the number of pages):

- https://sites.google.com/site/sub18bc/proceedings

You will need to hand in **a 2-page abstract of your final paper** (again, strictly following the SuB guidelines – see here: https://sites.google.com/site/sub18bc/call-for-papers) **by the end of the 8th week of classes**.

If we have time (we probably won't), we'll take a quick look at the functional programming language Haskell with the goal of understanding why doing formal semantics and programming in Haskell is in many important respects (but not all...) the same kind of endeavor. Because of this, implementing formal semantics analyses in Haskell – and testing and sharpening them in the process – is particularly straightforward and enlightening.