Seth Cable
Fall 2020

Seminar in Advanced Semantics (Linguistics 591S)

Syllabus

Meeting Times: Tuesday, Thursday 2:30-3:45
Location: Fully Remote Class (Private, Emailed Zoom Link)

Course Website (Handouts/Assignments): http://people.umass.edu/scable/LING591S-FA20
Course Moodle (Readings): https://moodle.umass.edu/course/view.php?id=69319

Course Instructor: Seth Cable (scable@umass.edu)

1. General Overview

This course builds upon the training and background received in Linguistics 510 Introduction to Semantics, and introduces undergraduate students to some more advanced topics and issues in formal semantic theory. Students will gain a broadened understanding of semantic theory, its formal tools, and the variety of natural language phenomena they can insightfully analyze. In addition, students’ engagement with the field of semantics will be deepened, through critical discussion of primary sources, as well as through the completion of a final research project.

The first two-thirds of the course will introduce students to certain foundational issues and results in extensional and intensional semantics, notably: (i) the semantics of movement structures, (ii) the semantics of pronominal binding, (iii) the semantics of quantificational DPs in non-subject position, and ‘covert’ movement, (iv) the semantics of propositional attitude sentences, and (v) de re / de dicto ambiguities. Following this, the selection of topics will depend partly on student interests, but could include (v) the semantics of plural nominals, (vi) the semantics of modal auxiliaries, (vii) the semantics of tense and aspect, and/or (viii) the semantics of questions.

Prerequisites: Linguistics 510
2. Course Requirements

2.1 Lecture / Discussion Attendance

Registered students are required to attend the lecture/discussion sessions on Tuesdays and Thursdays. Due to the on-going global health crisis, these sessions will be held entirely on-line, via Zoom. The link to the Zoom meeting space will be emailed separately to the class email list.

Both personal experience and a growing body of research suggests that on-line meetings are not ideal for the presentation of new information. Consequently, I will make sure that the handout/notes for a given lecture/discussion are available on the day of the preceding lecture/discussion. This will give students time to review that material prior to the actual day of its live presentation. Ideally, this will help to stimulate both student questions and discussion of the material, as well as their own comprehension of it during the lecture/discussion.

2.2 Problem Sets (80% of the Final Grade)

There will be five problem sets, collectively worth 80% of the final grade for the course. These problem sets will be assigned during the first half of the course, leaving the second half for students to work on their final paper (Section 2.3).

Problem sets will be assigned on a Thursday and due the following Thursday. In addition, each problem set will be discussed on the Thursday on which it is due. Please type up and email these assignments to Seth Cable prior to the start of the lecture/discussion on the due date (scable@umass.edu).

Students are permitted to work together on the problem sets. However, each person must write up their own work themselves, using their own words. In addition, students who work together should each make a note on their submitted assignments of who they worked with.

Additional, In-Class Problems:
Each problem set will also contain an additional problem or question that will be solved together in class on the day the assignment is due. Students should not submit a solution to this problem/question, but instead should simply spend some time thinking about it prior to the due date for the assignment.

2.3 Final Paper (20% of the Final Grade)

Students must submit a ‘squib-length’ (approximately 10-page) final paper. The primary requirement for this paper is that it relate to some topic or issue touched upon in class. One possibility is that it could discuss some semantic phenomenon, as well as a possible analysis for it. Alternately, it could also be a critical discussion of some reading or set of readings.

Students are encouraged to meet with me as soon as possible to discuss potential ideas for the final paper. I will also work with students to schedule regular meetings where we can discuss their paper and its development.
The final papers will be due by midnight on **Friday, December 11**. Students should speak with me about ideas for the final paper by **Friday, October 16**. (I am very willing to continue helping students with their paper after the final day of class on **November 20**).

### 3. Course Readings

There is no textbook that must be purchased for this course. However, the material covered in the lecture/discussion sessions will be based upon readings that students are encouraged (but not required) to consult. These ‘enrichment’ readings are available on the course Moodle.

Many of the materials in this class will be based upon the following two introductory texts on semantics:


Again, no reading from these works will be required. However, if you wish to consult these texts, the key portions of Heim & Kratzer (1998) have been scanned and are posted to the course Moodle. The second textbook, Heim & Von Fintel (2011), can be freely downloaded at the link above.

### 4. Overview of Topics

In this section, I will provide a brief overview of the various topics that will be covered or might be covered in this class. The first six topics are all ones that I aim for us to cover. The preferences of the students will determine which (if any) of the last four topics are covered.

#### 4.1 Review of the Basics of Extensional Semantics

We’ll begin in the first week by briskly reviewing the essentials of extensional semantics. These lectures will mainly be focused upon various foundational concepts, especially (i) the distinction between ‘extension’ and ‘intension’, and (ii) how a system that computes ‘extensions’ can (in principle) deliver a theory of natural language meaning. The purpose of these review lectures is two-fold:

(i) Students will be (re-)introduced to the specific formalism that we will employ throughout the semester (based upon Heim & Kratzer 1998)

(ii) Foundational assumptions will be presented in a way that facilitates our introduction to intensional semantics later on in the semester.
4.2 The Semantics of Movement Structures and Relative Clauses

Movement structures – or ‘filler-gap dependencies’ – are a fundamental feature of human language, and are found across a wide variety of languages and constructions (questions, relative clauses, topicalization). Students will be introduced to one leading method for semantically interpreting these structures: the special rule of ‘Predicate Abstraction’ introduced by Heim & Kratzer 1998. We will then examine how this rule can be used to give a semantic analysis for English relative clauses (e.g. ‘a man who John knows’).

4.3 The Semantics of Pronominal Binding

In Linguistics 510, students were introduced to a semantic analysis for so-called ‘free’ or ‘referential’ pronouns, which refer to specific individuals (e.g. ‘Mary likes him’; <‘him’ = John>). However, pronouns can also receive so-called ‘bound’ readings, where they don’t refer to any particular individual, but instead range over a whole set of entities (e.g. ‘Every boy likes himself’, or ‘No boy hates his mother’). In this unit, we will see how the semantic rule of Predicate Abstraction can be used to capture these bound readings of pronouns. We will also examine how pronominal gender features do (and do not) interact with the semantics of binding.

4.4 Quantificational DPs in Non-Subject Position and ‘Covert Movement’

Quantificational DPs like ‘every boy’ or ‘no cat’ were also introduced in Linguistics 510, where they were analyzed as functions of type <et,t>. As successful as this analysis is, however, it immediately runs into problems with sentences where a quantificational DP is not the subject of the sentence (e.g. ‘John likes every dog’). We will examine the problems raised by such structures, as well as one prominent solution to these problems: the hypothesis that DPs can move ‘covertly’.

4.5 Our First Encounter with ‘Intensional Semantics’: Propositional Attitude Sentences

Having built up a rich toolbox of ideas within a purely ‘extensional’ semantics, we will then spend the second half of the course exploring areas where this kind of semantic system is just not enough. We will begin by examining the semantics of verbs like believe, say, and know. We will see how some very basic puzzles surrounding these verbs force us to develop a theory of ‘intensional’ semantics, where meanings are computed from the intensions (not extensions) of expressions.

4.6 The ‘De Dicto / De Re’ Ambiguity

Sentences in which nominal expressions lie within the scope of intensional operators (e.g. ‘Dave thinks Sue married a linguist’) have long been known to exhibit a key ambiguity, classically referred to as the ‘de re / de dicto’ ambiguity. We will examine this ambiguity, and we will see how certain facts lead us to suppose that natural language sentences contain ‘hidden pronouns’ that refer to other ‘possible worlds’.
As noted above, student interest will determine which (if any) of the following topics are covered in this course.

### 4.7 The Semantics of Plural Nominals

A rather obvious feature of nouns in English is that they can be either singular or plural (*dog, dogs*). In Linguistics 510, however, only singular nouns are considered, raising the obvious question of how plural morphology on nouns should be interpreted. In this unit, students will be introduced to certain foundational ideas in the semantic theory of number-marking, as well as a variety of curious puzzles regarding the meanings of sentences that contain plural DPs.

### 4.8 The Semantics of Modal Auxiliaries

The analysis of modal auxiliaries in languages like English (*e.g.* *may, might, can, must*) has been a major force in the development of semantic theory. We will develop three major aspects of what remains a widely-adopted approach to their meaning:

a. Modal auxiliaries as quantifiers over possible worlds.
b. The ‘modal base’ as a contextually-defined parameter of the meaning of modals
c. The ‘ordering source’ as a second contextually defined parameter of meaning.

We will also see how this treatment of modal auxiliaries lays the groundwork for a highly influential theory of the syntax/semantics of conditional constructions.

### 4.9 The Semantics of Tense and Aspect Morphology

In languages with tense systems, verbal morphology serves to indicate whether a given event occurs within the past, present, or future of the time of speaking. We will explore the ways in which formal semantic theory can analyze these morphemes. As we will see, the path towards an understanding of these morphemes truly begins with an understanding of how *embedded* tenses operate (*e.g.*, ‘Mary said that Bill was/is dancing.’).

In addition to tense, many languages also exhibit a system of (grammatical) aspect, which interacts with tense in crucial ways. Roughly speaking, aspect indicates whether an event is on-going, completed, initiated, *etc.*, with respect to a particular topical time (*e.g.* ‘Bill ate a sandwich’ vs. ‘Bill was eating a sandwich’). We will explore the ways in which formal semantic theory can analyze such aspectual systems, and the ways in which they interact with tense.

### 4.10 The Semantics of Questions

Our semantic theory has been developed largely to handle declarative sentences like ‘Mary smokes’. But, declaratives are of course not the only meaningful type of sentence in natural language. For example, interrogatives like ‘Does Mary smoke?’ or ‘Who smokes?’ also have a meaning that we should want our semantic theory to accurately model and predict. However, given
that interrogatives do not have truth-values, they therefore also do not have truth-conditions, and so it is not trivial to incorporate them into our semantic theory.

In this unit of the course, we will explore the ways in which interrogatives have been approached by formal semantic theory. As we will see, the path towards such a theory again begins an understanding of how embedded interrogatives affect the truth-conditions of larger, declarative sentences (e.g. ‘Bill knows who smokes’; ‘Bill knows whether Mary smokes’).

4. Important Dates

Due to the global health crisis, no holidays will be observed on campus between the first and final days of classes.

- Tuesday 8/25: First Lecture
- Monday 9/7: Last day to drop class without any record
- Friday 10/16: Last day to drop with a W (Undergrad) or DR (CPE and Graduate)
  Talk with me about ideas for final paper
- Thursday 11/19 Last lecture
- Friday 12/11 Final Paper Due
- Monday 12/14 Final Grades Submitted