Semantics and Generative Grammar (LING 610): Syllabus

By Tom 7

Cartoon above by Tom Murphy (http://www.cs.cmu.edu/~tom7)

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Instructor: Seth Cable
E-mail: scable@umass.edu
Course Website: http://people.umass.edu/scable/LING610-FA23/

1. General Overview

- One of mankind’s most distinctive and consequential cognitive capacities is our ability to form an unlimited number of novel, meaningful linguistic expressions.
  - This course introduces students to the formal study of one facet of this capacity: the cognitive system that computes the meanings of these expressions.

- Throughout the semester, students will be trained in the tools and techniques of formal semantic theory, as well as certain basic results of the field.

- Students will develop experience with a particular formal semantic system (Heim & Kratzer 1998), largely by learning how such a system can be adjusted and expanded to cover ever larger domains of linguistic phenomena.
  - Through this, students will gain a better understanding of how the human mind is able, through language, to express an infinite variety of thoughts and experiences.

- Students will also gain a better understanding of how to ask and answer ‘semantic questions’, not only regarding their own language, but also ones for which they themselves are not speakers.
2. Course Requirements

2.1 Lecture Attendance

There is no official requirement that students attend a certain number or percentage of lectures in order to pass the course. However, given the special difficulty of this material, it is unlikely that students will pass the course without regularly attending and participating in the class lectures.

2.2 Problem Sets

The only work you will be required to do for this course – and so the only method for gauging your understanding of the course material – will be a series of ten problem sets.

- These problems sets will be assigned on a Thursday and due the following Thursday.
- Answers to the problem sets will be discussed in class on the date they are due, and so late assignments will not be accepted (except in very extreme circumstances).
- Problem sets must be typed up and submitted as PDFs via email to me prior to the start of the class on which they are due.
- Students are permitted – indeed, encouraged – to work together on the problem sets.
  - However, each person must write up their own work, using their own words
  - In addition, students who work together should make a note on each of their submitted solutions of who they worked with.
- We will have your assignments corrected and graded within one week.

2.3 A Note on the Grading

Yosho Miyata (https://yoshomiyata.wixsite.com/mysite-35/) will be helping me to correct and grade your assignments. However, any and all questions regarding the grading should come to me, not Yosho.

3. Course Readings

All readings for the course – both required and optional – will be posted on the course Moodle. Most of the required reading for the course will be excerpts from the following textbooks:

4. Rough Outline of Course Content (Subject to Change)

4.1 Unit 1: Foundations

4.1.1 The Conceptual Foundations of Formal Semantics

- The overarching program of ‘formal semantics’
- The principal of compositionality
- The different dimensions of meaning (assertion, presupposition, implicature)
- Analyzing (part of) meaning via ‘truth conditions’

**Required Reading:**
- Chierchia & McConnell-Ginet: 1-33
- Heim & Kratzer: 1-3
- Larson 1995: 361-368
- Partee 1995: 311-316

4.1.2 The Formal Foundations of Formal Semantics

- Basics of set theory
- Basics of functions

**Required Reading:**
- Heim & Kratzer: 3-11

**Suggested Reading:**
- Chierchia & McConnell-Ginet: 529-540
- Partee et al.: 3-36

4.1.3 The Formalization of “Meaning”

- Intensions and extensions
- First steps towards a compositional semantics
- Computing extensions of complex phrases
- Deriving truth conditions

**Required Reading:**
- Heim & Kratzer: 13-26
- Chierchia & McConnell-Ginet: 53-73, 99-104

4.2 Unit 2: Expanding the Basic System

4.2.1 Semantic Types and Lambda Notation

- The system of ‘semantic types’
- Transitive verbs, and functions that return functions
- The lambda notation for functions

**Required Reading:**
- Heim & Kratzer: 26-29, 34-39

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4.2.2 Logical Connectives and Interpretability

- Sentence-level disjunction
- Sentence-internal negation, and functions taking functions as argument
- VP-level conjunction
- Interpretability and well-formedness
- The ‘Theta-Criterion’: Syntax or Semantics?

Required Reading: Heim & Kratzer: 43-58

4.3 Unit 3: Nouns, Adjectives, and Modification

4.3.1 Common Nouns and Adjectives

- Semantically vacuous words
- The semantics of (common) nouns and adjectives, in predicate position

Required Reading: Heim & Kratzer: 61-63

4.3.2 Adjectival Modification

- The rule of ‘Predicate Modification’
- The semantics of adjectival modification: intersective vs. subsective adjectives

Required Reading: Heim & Kratzer: 63-73
Suggested Reading: McNally 2013

4.3.3 Adverbial Modification and Events

- Semantic puzzles concerning adverbs
- Solution to the puzzles by assuming verb phrases are predicates of events
- The rule of ‘Event Identification’
- Representing ‘theta-roles’ in our formal semantic theory
- The semantics of the ‘little’-v head

Required Reading: NONE

4.4 Unit 4: The Semantics of DPs

4.4.1 The Semantics of Definite DPs

- Definite determiners (the) as functions that return entities
- Modelling presuppositions in our formal semantic theory

Required Reading: Heim & Kratzer: 73-85
4.4.2 The Semantics of Quantificational DPs

- Quantificational DPs (some man, every man) as second-order properties
- Quantificational determiners (some, every) as relations between predicates
- Formal properties of quantificational determiners and their effect on grammar
- The presuppositions of quantificational determiners

Required Reading: Heim & Kratzer: 131-135, 140-177 (Chapter 6)

4.5 Unit 5: Conversational Implicature

4.5.1 Conversational Implicature: The Basics of the Gricean Theory

- Distinguishing conversational implicature from conventionalized meanings
- The Gricean theory of conversational implicature

Required Reading: Chierchia & McConnell-Ginet: 25-28, 239-255

Suggested Reading: Gamut 1991: 195-219

4.5.2 Applying the Gricean Theory to Linguistic Puzzles

- Applications of the Gricean theory of conversational implicature
- Problems for the Gricean theory of conversational implicature

Required Reading: Chierchia & McConnell-Ginet: 25-28, 239-255

Suggested Reading: Gamut 1991: 195-219

4.6 Unit 6: Pronouns and Movement Structures

4.6.1 Pronouns, Variable Assignments, and Pronominal Gender

- The semantics of deictic (‘free’) pronouns
- Variable assignments
- The semantics of pronominal gender features

Required Reading: Heim & Kratzer: 239-245

4.6.2 The Semantics of Movement Structures

- The syntax of ‘movement structures’
- First case-study: Topicalization
- The rule of ‘Predicate Abstraction’

Required Reading: Heim & Kratzer: 86-115
4.6.3 The Semantics of Relative Clauses

- Second case-study in ‘movement structures’: Relative clauses
- Using ‘Predicate Abstraction’ to analyze English head-external relative clauses
- Other ‘relativization’ strategies across languages

Required Reading: Heim & Kratzer: 86-115

4.7 Unit 7: Pronominal Binding and Covert Movement

4.7.1 Pronominal Binding and Pronominal Gender

- Reflexive pronouns and Principle A
- Capturing pronominal binding via the rule of ‘Predicate Abstraction’
- Constraints that pronominal gender places on possible binders
- Predicting those constraints in our formal theory

Required Reading: NONE

4.7.3 Covert Movement

- The puzzle of quantificational DPs in non-subject position
- Two solutions to the puzzle: covert movement (Quantifier Raising) and in-situ interpretation (Type Shifting)

Required Reading: Heim & Kratzer: 178-189

4.7.4 Pronouns Bound by Quantificational DPs

- The phenomenon of ‘quantificationally bound’ readings of pronouns
- Capturing ‘quantificationally bound’ readings in our formal theory
- Predictions of our theory of pronominal gender for quantificational binding

Required Reading: NONE

4.7.5 Covert Movement vs. In-Situ

- Arguments for and against ‘covert movement’ and ‘in-situ interpretation’
- More on the syntax of covert movement

Required Reading: Heim & Kratzer: 193-230
5. Important Dates

- Monday 9/18  Last Day to Drop with No Record
- **Tuesday 10/10**  NO CLASS (Monday Schedule on a Tuesday)
- Monday 10/31  Last day to drop with a W (Undergrad) or DR (CPE and Graduate)
- **Thursday 11/23**  NO CLASS (Thanksgiving Break)
- **Thursday 12/7**  Final Lecture
- Thursday 12/21  Final Grades Submitted

6. Classroom Policies Relating to COVID-19

- Please be vigilant about yourselves and any symptoms of viral infection that you may be experiencing. **Many of us live with partners or children who are immunocompromised or who are currently too young to be vaccinated against COVID.** We all applaud and deeply appreciate those who put the health and risks of others above personal considerations and conveniences.

- If anyone is at all feeling at any of the range of symptoms that we all now understand to be associated with COVID and **is unable to test before class**, please come to class wearing a KN95 mask.

- If anyone has received a positive COVID test, please let me know ASAP and then do not come to class. If I’m informed ahead of time, I can broadcast the lecture by Zoom.

- I have designed the course to be a ‘hybrid’ between an in-person and an online course, allowing for maximum flexibility during these continually complex and evolving times.
  - All course handouts, readings, assignments, and other materials will be transmitted via the course Moodle or the course website.
  - **Anyone unable to attend class in person can view the lecture live via Zoom, using the Zoom link available on the course Moodle.**

- **In addition, if I am ever feeling symptomatic or receive a positive COVID test, then we will not hold in-person class.** Depending on the severity of my symptoms, we will hold class remotely, over Zoom. The Zoom link we will use in these circumstances can be found on the course Moodle.
7. **Student Rights and Responsibilities**

7.1 **Accommodation Statement**

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements. For further information, please visit Disability Services ([https://www.umass.edu/disability/](https://www.umass.edu/disability/)).

7.2 **Academic Honesty Statement**

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent ([http://www.umass.edu/dean_students/codeofconduct/acadhonesty/](http://www.umass.edu/dean_students/codeofconduct/acadhonesty/)).

7.3 **Title IX Statement**

In accordance with Title IX of the Education Amendments of 1972 that prohibits gender-based discrimination in educational settings that receive federal funds, the University of Massachusetts Amherst is committed to providing a safe learning environment for all students, free from all forms of discrimination, including sexual assault, sexual harassment, domestic violence, dating violence, stalking, and retaliation. This includes interactions in person or online through digital platforms and social media. Title IX also protects against discrimination on the basis of pregnancy, childbirth, false pregnancy, miscarriage, abortion, or related conditions, including recovery. There are resources here on campus to support you. A summary of the available Title IX resources (confidential and non-confidential) can be found at the following link: [https://www.umass.edu/titleix/resources](https://www.umass.edu/titleix/resources). You do not need to make a formal report to access them. If you need immediate support, you are not alone. Free and confidential support is available 24 hours a day / 7 days a week / 365 days a year at the SASA Hotline 413-545-0800.