

LING 341 - Semantics

TTh 2:40-4:00, PHYSICS 121

Course Syllabus

Spring 2008

Matt Pearson

office: Vollum 313
phone: ext. 7618 (503-517-7618)
email: pearsonm@reed.edu
hours: Tues 4:00-6:00, Wed 2:00-3:00 (or by appointment)

PREREQUISITES

LING 323 'Introductory Syntax' (or equivalent), or permission from the instructor, is required to take this course. For students who have previously taken LING/ANTH 311 'General Linguistics', the Introductory Syntax course may be taken concurrently with Semantics.

TEXTBOOKS

- Allwood, Jens, Lars-Gunnar Andersen, and Östen Dahl (1977) *Logic in Linguistics*. Cambridge University Press. [recommended]
- Cann, Ronnie (1993) *Formal Semantics: An Introduction*. Cambridge University Press. [required]
- Portner, Paul H. (2005) *What is Meaning? Fundamentals of Formal Semantics*. Blackwell. [required]

These books are all available for purchase in the bookstore. In *Course Outline and Readings* (see below), they are referred to as 'Allwood, et al.', 'Cann', and 'Portner', respectively. Allwood et al. provides some useful background on those aspects of set theory and formal logic which it is useful for semanticists to know about; while Cann and Portner provide introductions to formal linguistic semantics. Portner offers a very elementary overview of the major concepts and research questions, and largely avoids formal notation; while Cann provides a more thorough and technical discussion. Chapters from these books will be supplemented by additional readings, available either on print reserve, e-reserve, or from me.

CONTENT AND FOCUS OF THE COURSE

Semantics is the branch of linguistics which deals with the relationship between the form and meaning of *linguistic expressions* (morphemes, words, phrases, sentences, etc.). Despite how the term "semantics" is sometimes used in everyday conversation, linguistic semantics does not deal (directly) with the nature of truth, nor with how people reason and communicate ideas, nor with mental states like knowing, believing, and intending, nor with the finer points of word interpretation (such issues we generally leave to the philosophers, psychologists, and lawyers). Instead, linguistic semantics, like morphology, syntax, and phonology, is concerned with finding out about *mental grammar*, the system of abstract principles which underlies our ability to use human language—in this case, those principles related to our ability to interpret expressions.

The basic project of formal semantics is to develop *formal models* of mental grammar to account for how the meaning of an expression of natural human language is built up from the meanings of its component parts (*compositionality*). These models are tested on how well they predict native speaker intuitions about relations such as *entailment*, *presupposition*, and *ambiguity*. Formal models in semantics are couched in a notationally explicit calculus, or *metalanguage*. A large part of this course will involve looking at fragments of metalanguage for semantics (derived in part from work in syntax, mathematics, and

especially formal logic), and exploring the ways they can be used to say things about natural language expressions. We will also look at various related issues, such as word meaning and the interface between semantics and syntax.

Many linguists distinguish semantics from another area of study related to meaning, namely *pragmatics*. Pragmatics deals with how speakers use language to perform different kinds of communicative tasks—making assertions, asking questions, issuing commands, promising, etc.. Grossly speaking, pragmatics explores how people ‘mean things’ by the expressions they use, rather than what the expressions themselves ‘mean’. Other linguists treat pragmatics as a sub-field of semantics. Although we will have a number of things to say about pragmatic issues in this course, our primary focus will be on semantics narrowly defined—that is, the ‘propositional content’ of expressions, irrespective of how those expressions are used to communicate particular ideas in particular contexts.

Lectures and discussion will be based on the textbook chapters, supplemented with outside readings. We will also do a number of in-class exercises, both to practice the formalisms we will be learning, and to explore how they can be applied to various problems in the data. The written work for the course will consist of periodic problem sets, plus a final exam.

EXPECTATIONS AND POLICIES

Students will be expected to complete all assigned readings, attend every class meeting, and participate in discussion on a regular basis. Students may also be asked to lead the discussion or present supplementary material in class. In addition, students will be required to complete regular problem sets (see below), and a comprehensive take-home exam.

Grading basis:	participation	15%
(<i>approximate</i>)	problem sets	60%
	final exam	25%

Written work must be turned in on time if you wish to receive full credit and comments. Late assignments will be penalized 10% of total possible points for each day they are late, unless you receive an extension from me in advance. Late work will not be accepted for credit if turned in after the assignment has been handed back, or discussed in class, whichever comes first. Moreover, late assignments will probably receive minimal comments, and may not be returned to you in a timely fashion.

There will be a total of 5 problem sets. Dates when assignments will be handed out and collected are given below (these dates are tentative; I will notify you of any changes as we go along). Problem sets will be handed out and due on Thursdays, approximately every 2-3 weeks.

	<i>handed out on Thursday</i>	<i>due in class on Thursday</i>
PS 1	February 5	February 14
PS 2	February 14	February 28
PS 3	February 28	March 13
PS 4	March 27	April 10
PS 5	April 10	April 24

Please *type* your assignments. Written work may be submitted in either hardcopy or electronic versions. Hardcopy versions should be submitted in class on the date due. Electronic versions should be submitted as email attachments before the beginning of class on the date due. You may submit an attachment in PDF (preferred) or Word for Windows. Word for Macintosh is also acceptable as long as you stick to non-specialized fonts.

Note that problem sets are *not* assigned with the expectation that you will be able to complete them without help. It is perfectly acceptable to consult with me *before* an assignment is due if you are having

trouble working it out. As in all my classes, you are encouraged – indeed, expected – to work on assignments together, so long as you write up your answers *in your own words*. So find yourself a study partner (or two, or three) as soon as you can!

COURSE OUTLINE AND READINGS

The following outline lists the topics which I intend to cover, and the approximate order in which we will cover them, together with numbered reading assignments for each unit (readings are required unless otherwise indicated). This outline is subject to change, depending on how quickly we get through the material.

You will notice that I have not included any dates. It makes more sense to me to set the pace of the course as we go along, rather than trying to stick to a predetermined schedule. I will let you know in class which reading assignments you should be working on for the following week.

(N.B.: There are readings by two authors with the same last name, John Lyons and Christopher Lyons. Make sure you don't confuse them!)

I. *Dimensions of Meaning*

What is meaning? – Meaning and communication – Meaning relations (entailment, presupposition, implicature, etc.) – Compositionality – Truth-conditional approaches to meaning – 'Speaker meaning' versus 'semantic meaning' – Sense and denotation; extension and intension

- (1) **Portner**, chapter 1 'The fundamental question', pp. 1-27.
- (2) **Cann**, chapter 1 'Introduction', pp. 1-26.
- (3) **Grice**, 'Meaning', *Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, and Psychology*, ed. Steinberg and Jakobovits, pp. 53-59. <[B840 .S82 / reserve folder / e-reserve](#)>
- (4) **Ziff**, 'On H.P. Grice's account of meaning', *Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, and Psychology*, ed. Steinberg and Jakobovits, pp. 60-65. <[B840 .S82 / reserve folder / e-reserve](#)>
- (5) **Chierchia and McConnell-Ginet**, chapter 1 'The empirical domain of semantics', *Meaning and Grammar: An Introduction to Semantics*, pp. 1-52. <[P325 .C384 2000](#)>
- (6) **Keenan**, 'Two kinds of presupposition in natural language', *Studies in Linguistic Semantics*, ed. Fillmore and Langendoen, pp. 45-52. <[P325 .S85 / reserve folder / e-reserve](#)>
- (7) **Chierchia and McConnell-Ginet**, chapter 2 'Denotation, truth, and meaning' (sections 1, 2, 3.1, 4), *Meaning and Grammar: An Introduction to Semantics*, pp. 53-73, 99-110. [you may read the rest of section 3 (pp. 73-98), or you may skim it, or skip it altogether; the formalisms presented in this section will be properly introduced in later readings] <[P325 .C384 2000](#)>

II. *An Elementary Compositional Semantics for Natural Language*

Formal precursors: Basic set theory, propositional logic and predicate logic – Developing an (extensional) model-theoretic semantics: Arguments and predicate saturation – Phrase structure rules and their translations – Basic interpretive rules for predicates and logical connectives – Semantic types and function application – Modification – Lambda notation

- (8) **Allwood, et al.**, chapter 2 'Set theory', pp. 3-14; chapter 3 'Inference and logical analysis of sentences', pp. 15-25. <[P106 .A4213 1977](#)>
- (9) **Portner**, chapter 2 'Putting a meaning together from pieces', pp. 28-39; chapter 3 'More about predicates' (through section 3.5), pp. 40-54. [section 3.5 (pp. 49-54) is recommended, but will not be discussed in class]
- (10) **Allwood, et al.**, chapter 4 'Propositional logic', pp. 26-57; chapter 5 'Predicate logic' (through section 5.1), pp. 58-61. <[P106 .A4213 1977](#)>

- (11) **Cann**, chapter 2 'Predicates and arguments', pp. 27-53.
- (12) **Cann**, chapter 3 'Negation and coordination', pp. 54-81.
- (13) **Portner**, chapter 3 'More about predicates' (cont.), pp. 54-60.
- (14) **Portner**, chapter 4 'Modifiers', pp. 61-77.
- (15) **Cann**, chapter 4 'Type theory', pp. 82-111.
- (16) **Cann**, chapter 5 'The lambda operator', pp. 112-149.

III. (Noun) Phrase Semantics, Scope, and Quantification

Reference – Definiteness and specificity – Quantification in predicate logic – Quantification in English and other natural languages – C-command, binding, and scope – Quantification and syntactic structure: QR and Logical Form – Stage- vs. individual-level predication and the semantics of bare plurals – The semantics of pronouns: Variables and coreference – Donkey anaphora and e-type pronouns

- (17) **Portner**, chapter 5 'Complexities of referring expressions', pp. 78-111.
- (18) **Lyons, J.**, chapter 7 'Reference, sense, and denotation', *Semantics* volume 1, pp. 174-229. [focus on the first five sections (pp. 174-223)] <P325 .L96 v.1>
- (19) **Lyons, C.**, chapter 1 'Basic observations', *Definiteness*, pp. 1-46. [the final two sections (pp. 41-46) are optional] <P299 .D43 L97 1999 / reserve folder / e-reserve>
- (20) **Allwood, et al.**, chapter 5 'Predicate logic' (cont.), pp. 61-95. <P106 .A4213 1977>
- (21) **Portner**, chapter 6 'Quantifiers', pp. 112-131.
- (22) **Cann**, chapter 6 'Quantification', pp. 150-196.
- (23) **May**, chapter 1 'Logical form as a level of linguistic representation', *Logical Form: Its Structure and Derivation*, pp. 1-30. <P158 .M38 1985 / reserve folder / e-reserve>
- (24) **Carlson**, 'A unified analysis of the English bare plural', *Formal Semantics: The Essential Readings*, ed. Portner and Partee, pp. 35-74. <P325 .F676 2002 / reserve folder / e-reserve>
- (25) **Evans**, 'Pronouns', *Semantics: A Reader*, ed. Davis and Gillon, pp. 435-455. <P325 .S3798 2004>
- (26) **Heim**, 'File change semantics and the familiarity theory of definiteness', *Formal Semantics: The Essential Readings*, ed. Portner and Partee, pp. 223-248. <P325 .F676 2002 / reserve folder / e-reserve>

IV. Lexical Meaning and Inference

More on inference relations and natural language – Lexical semantics – Meaning postulates – Lexicalization patterns

- (27) **Cann**, chapter 7 'Inference', pp. 197-232.
- (28) **Talmy**, 'Lexical typologies', *Language Typology and Syntactic Description, vol. III: Grammatical Categories and the Lexicon* (2nd edition), ed. Shopen, pp. 66-168. <P204 .L33 2007 v.3>

V. Meaning and Context: Places, Times, Intentions, and Possible Worlds

Deixis – Tense and aspect – Modal logic and quantification over possible worlds – Modality in natural language – Sense and reference/denotation again – Intensional semantics and referential opacity

- (29) **Levinson**, chapter 2 'Deixis', *Pragmatics*, pp. 54-96. <P99.4 .P72 L48 1983 / reserve folder>
- (30) **Portner**, chapter 7 'Extensional vs. intensional contexts', pp. 132-136.
- (31) **Portner**, chapter 8 'Tense, aspect, and modality' (through section 8.2), pp. 137-153.

- (32) **Cann**, chapter 8 'Time, tense and aspect', pp. 233-262.
- (33) **Portner**, chapter 8 'Tense, aspect, and modality' (cont.), pp. 154-160.
- (34) **Allwood, et al.**, chapter 7 'Modal logic', pp. 108-124. <P106 .A4213 1977>
- (35) **Portner**, chapter 9 'Propositional attitudes', pp. 161-175.
- (36) **Cann**, chapter 9 'Possible worlds', pp. 263-281.
- (37) **Cann**, chapter 10 'Intensional semantics', pp. 282-322.

VI. *Meaning and Discourse: Semantics Meets Pragmatics*

Entailment versus implicature – Conversational implicatures – Scalar implicatures and quantification
 – The semantics and pragmatics of presupposition – The projection problem

- (38) **Portner**, chapter 10 'The pragmatics of what's given', pp. 176-198.
- (39) **Portner**, chapter 11 'The pragmatics of inference', pp. 199-205. [optional]
- (40) **Grice**, 'Logic and conversation', *Syntax and Semantics* volume 3: *Speech Acts*, ed. Cole and Morgan, pp. 41-58. <P1 .S9 v.3 / reserve folder / e-reserve>
- (41) **Levinson**, chapter 3 'Conversational implicature', *Pragmatics*, pp. 97-166. <P99.4 .P72 L48 1983 / reserve folder>
- (42) **Chierchia and McConnell-Ginet**, chapter 6 'Indexicality, discourse, and presupposition' (sections 3 and 4 only), *Meaning and Grammar: An Introduction to Semantics*, pp. 349-389. <P325 .C384 2000>