

## Seminar Title: Origins of Meaning

Meeting Times: Monday 12.45-2.45 pm EST

Meeting Place: Sever 201

Pre-recordings of key parts will be made available.

Office Hours: Flexible.

We will decide them together in order to maximize your participation.

**NOTE:** I plan to have a 'zoom hang out' occasion *before* the seminar starts. It is scheduled on:

**Thursday August 19 at 1 pm EST** [to join click here](#)

## General Description

Birds produce sophisticated songs. Do bird songs mean anything? They do, in some way. They serve, for example, as predator warnings or mating calls. Humans too, like birds, can produce music. What can we convey to each other through music? The standard answer is: rich emotions. A symphony can move us deeply. But for effective day to day communication (or, say, to develop a scientific theory, etc.), we need languages with words and sentences, i.e. the kind of languages which is unique to our species.

How do languages work? Why are they so distinctly human in the natural world?

These questions lead to others like:

Is language a creation of our intelligence, i.e. we speak, because we are smart? Or the other way around: we are smart because we have language, through which we can give shape to our thoughts, reason, discover, etc.?

Do all languages, in spite of looking so diverse, share a common structure? For example, in English words fall into categories: *cat* is a noun, *meow* is a verb. Do all languages have nouns and verbs?

A fairly recent turning point in addressing these fundamental questions has been to view language as a computational device. This is enabling us to build powerful models of how languages are structured so as to empower us with the ability to create meaning; which, in turn, is shedding light, more and more, on who we are.

## Prerequisites

An interest in language and mind, and no fear of formal methods or the desire to overcome such fear.

Here is a short presentational video for the course:

## Texts

Baker, M. (2001) *The Atoms of Language*, Basic Books, New York, N.Y.

The text and all other readings (as detailed below) and videos are available through the class website.

## Coursework

Coursework comprises

- Weekly class meetings,
- Readings, Class Presentations
- Three (easy) problem sets,
- Choice between a 6 - 8 pp. final essay or a 4<sup>th</sup> problem set

In addition with regular office hours, in connection with the problem set due dates, there will be additional (optional) meetings covering background tailored to specific subgroups of students.

- The overall objective is the acquisition of critical awareness of how natural languages actually work and of some of the main ways in which the language faculty is being modeled within linguistics and cognitive science.
- Special emphasis on Morphology, Syntax, Semantics, Pragmatics and their interfaces.

## Grading

The grade in the course is computed roughly as follows:

- Problems sets: 60%
- Final essay: 20 %
- Class/office hours activities: 20%

To achieve SAT one must reach 70% of the aggregate full score.

## Grading policies

Assignments are generally handed out one week before their due date and they will be due at 11:59 pm on their due date. They should be submitted as a PDF directly to the instructor. (If you prefer to handwrite your answers, you can scan in your paper version for submission. The libraries have good scanners for this purpose. Phone camera photos are not sufficiently high quality; please do not submit such.)

For students who make a good faith effort to hand in all of the assignments, we will drop the lowest assignment grade.

## Late assignment policy

All assignments are due on the indicated due date by 11:59 pm unless otherwise indicated. Occasionally, extraordinary circumstances may make it impossible for you to submit your assignments on time. For this reason, we provide five “late days” for your assignments. For each day an assignment is turned in late, up to three per assignment, you will be charged one of your allotted late days. For example, if an assignment is due on Tuesday at 11:59 pm, it can be turned in by 11:59 pm on Wednesday charging one late day, Thursday charging two, Friday charging three, but will receive no credit thereafter. *After three days, we will not accept late homework and will stop charging late days*; that is, only three late days will be charged for unsubmitted work or work submitted exceptionally late. If you turn in an assignment late without sufficient late days remaining, the assignment will not earn any credit. However, we recommend that you turn in such assignments anyway as we may consider them in allocating final grades in borderline cases.

We are acutely aware of the exceptionality of the times we are going through and we will make every effort to adjust to special circumstances.

## Laptop/phone/camera policy

During our time together we should try to optimize our interactions. Working at a distance can be super distracting. We should individuate together ways of minimizing factors of distraction (including, e.g., putting our phones in a different room, cleaning up our desktops of irrelevant windows, and the like).

We should also keep our cameras on, to the extent that it is at all possible. Only by seeing each other we can get some sense of how the discussion is going, how well we are grasping what is going on, etc.

## Academic integrity and collaboration policy

The seminar, like all courses at Harvard College, operates under the salutary spirit of the [Harvard College Honor Code](#). That spirit is especially important in considering collaboration on course work. Students are encouraged to discuss all aspects of the course work “ readings, problem sets, final projects ” with each other; talking together can be a useful method for working out difficulties in solving the problems and in improving your understanding of the concepts. Indeed, we will provide opportunities for this kind of interaction in our classes. However, except where explicitly stated otherwise, *all assignments should be completed individually*. It goes without saying that all individually submitted work should be the student’s own. Please see the section on [Plagiarism and Collaboration in the Handbook for Students](#).

If in doubt about where the line is between appropriate discussion and undue collaboration or appropriation of others’ work, please talk to the instructor.

## Preview

Here is a preview of why language matters.

## Schedule of Classes and Assignments

The slides and sometimes a prerecording of key parts of the class will be distributed in advance, and students are strongly encouraged to view them beforehand. Each class will have three components. In the first component, a team of two of you will summarize the previous class and the assigned reading and will lead a discussion on open problems. In the second component, the instructor will introduce the new material and provide a framework for discussing it. The third component will involve drills and discussion.

A tentative schedule of classes (subject to change) follows.

### Class 1

Natural languages/artificial languages

Readings:

Baker (2001), Chapter 1, pp. 1-19

### Class 2

What are words?

Readings:

OSU *Language Files*, Morphology, pp.147-173

Baker (2001,) Chapter 2, pp 19-51

### Class 3

What are sentences?

The concept of recursion.

Readings:

OSU *Language Files*, Syntax, pp. 194-230

Baker (2001), Chapter 3, pp. 51-85

### Class 4

Formal languages and algorithms

Readings:

S. Shieber Formal Modelling Notes (in Files --> Readings) pp. 1-16

Baker (2001), Chapter 4, pp. 85-123

### ***1<sup>st</sup> problem set***

### Class 5

The beauty of syntax

Readings:

S. Shieber Formal Modelling Notes (in Files --> Readings) pp. 16-34

Baker (2001), Chapter 5, pp. 123-157

### Class 6

Language variation and linguistic universals

Readings:

Baker (2001), Chapters 6, 7 pp. 157-235

## **Class 7**

What is meaning?

Readings:

Chierchia and Mc Connell-Ginet (2000), *Meaning and Grammar*, MIT Press, Chapter 1, pp. 1-52

## **Class 8**

How meanings “fit together”

The compositionality of language

Readings:

Chierchia (2006) “Formal Semantics”, in K. Brown (ed) *The Encyclopedia of Languages and Linguistics*, pp. 564-572

Shieber's notes on Logic pp. 34-41

## **2<sup>nd</sup> Problem Set**

## **Class 9**

Logical Form

Readings:

Chierchia's Notes on Set Theory

Meaning and Grammar Chapter 2 "Denotation, Truth and Meaning" pp. 53- 86

## **Class 10**

Layers of meaning.

How stratified is the interpretation of an utterance?

Readings:

Grice (1975) “Logic and conversation”, reprinted in P. Cole (ed) *Syntax and Semantics*, Vol 3, Academic Press, NY, pp. 41-58

Aristotle, Metaphysics IV, *The principle of non contradiction*, translated by W.D. Ross, pp. 8-16

## **Class 11**

Determiners between meaning and use

Readings:

Chierchia (2006) “Formal Semantics”, in K. Brown (ed) *The Encyclopedia of Languages and Linguistics*, pp. 564-579

## **3<sup>rd</sup> problem set**

## **Class 12**

Language and Logic.

Discussion of of the movie: 'Is the man who is tall happy'?

General discussion of the relation between Logic and the Language Faculty.

Readings:

Vision of the movie "Is the man who is tall happy" by M. Gondry with N. Chomsky.

Chierchia, "Language, thought and reality after Chomsky"

[https://scholar.harvard.edu/files/chierchia/files/chierchia\\_2007\\_chomsky.pdf](https://scholar.harvard.edu/files/chierchia/files/chierchia_2007_chomsky.pdf)