

**Mind and Medicine**  
**(HPS 612)**  
**Prof. E. Machery**  
**Spring 2007**  
[machery@pitt.edu](mailto:machery@pitt.edu)

**Class Meetings**

12.00-12.50 am, Monday & Wednesday  
Room: CL G24

**Recitation:**

**Catherine Stinson** ([ces35@pitt.edu](mailto:ces35@pitt.edu))

M 4.00-4.50 pm CL 121  
M 5.00-5.50 pm CL 121  
W 2.00-2.50 pm CL 317  
Th 1.00-1.50 pm CL 119

**Elizabeth Irvine** ([emi6@pitt.edu](mailto:emi6@pitt.edu))

M 1.00-1.50 pm CL 135  
M 2.00-2.50 pm CL 135  
T 12.00-12.50 pm CL 129  
W 10.00-10.50 pm CL 119

**Office Hours**

1017 CL  
2:00-4:00 pm, Monday, or by appointment

**Course Description/Goals**

Famous scientists such as Steven Pinker suggest that human behavior and human cognition should be explained on the basis of the theory of evolution. These views have been applied to a large range of human emotions, desires and actions—from altruism and happiness to psychiatric diseases to health to taboos to rape. These claims have been echoed in the popular media. We have been told that humans are by nature violent and xenophobic, that men and women are by nature unfaithful, that men have evolved to be extremely jealous, that women have evolved to desire males with a high social-status, that there are some innate differences between men and women, and so on, and so forth. This course is designed as a critical introduction to the issues raised by these claims about evolution, psychology, and human nature. The impact on medicine and psychiatry of this evolutionary approach to the mind will also be discussed in detail. The goal of this class is to provide students with a critical understanding of the sensational claims made about human nature on the basis of the theory of evolution. Previous knowledge of biology and

of psychology is *not* needed for this class. Key notions and theories in both fields will be introduced progressively.

## CourseWeb

We will use Blackboard for course announcements and to post the lectures notes (powerpoint slides). The slides will usually be posted on BB before the class. *It is your responsibility to check the site on a regular basis.*

## Texts

### *Mandatory*

Pinker, S. 1997. *How the Mind Works*. Norton.\*

Other mandatory readings will be available either on line (see links in the course schedule) or in the electronic reserve (**ER**).

### *Of interest*

Buss, D. 2004. *Evolutionary Psychology. A New Science of the Mind*. Allyn and Bacon.\*

\* These books should have been ordered by the Campus Bookstore and should be available for purchase there.

## Assessment

Your grade will be based on your participation in the recitations, your 2 short assignments, the mid-term exam and the final exam.

In determining your final grade, work will be weighed as follows:

<i>Participation</i>	13%
<i>Assignment 1</i>	14%
<i>Assignment 2</i>	15%
<i>Midterm exam</i>	25%
<i>Final exam</i>	33%

Grading scale for the final grade:

97.0 – 100 A+	73.0 – 76.9 C+
92.0 – 96.9 A	69.0 – 72.9 C
89.0 – 91.9 A–	65.0 – 68.9 C–
85.0 – 88.9 B+	61.0 – 64.9 D+
81.0 – 84.9 B	56.0 – 60.9 D
77.0 – 80.9 B–	50.0 – 55.9 D–
	Below 49.9 F

If you have any question concerning your grades (assignments, exams), please, contact first your TA, Catherine Stinson ([ces35@pitt.edu](mailto:ces35@pitt.edu)) or Elizabeth Irvine ([emi6@pitt.edu](mailto:emi6@pitt.edu)).

## Lecture

The class will mostly be a lecture, based on the readings. You should read carefully the assigned readings. You are invited to ask any question you want during the lecture.

Attendance is mandatory and will be checked.

### **Recitation Participation**

Everyone is expected to take part in the discussion during recitation. You should have read carefully the assigned readings. You are advised to take notes on the readings, singling out the main propositions as well as the arguments for these propositions. You should also write down the questions you may have, since even after a second reading, you may not entirely understand the readings. Participation in class discussions enables you to gain a better appreciation of the material, a better understanding of the problems and solutions, and more confidence in your abilities as a scholar and communicator.

Your participation grade will be based on your participation during recitation.

Attendance is mandatory and will be checked.

### **Assignments**

You are expected to write 2 short (circa **1200** words) assignments (**02/14** and **03/26**).

Topics will be given during the term.

Assignments should be typed and double-spaced. They should be printed and given to your TA.

No late assignment will be accepted.

### **Midterm Exam**

The midterm exam will be held on **02/28** in the regular lecture room during the regular lecture period. This exam will consist of a small number of questions based on the lectures and the readings. No notes or texts will be permitted. I will provide you with a list of possible questions about two weeks before the exam. If you are unable to attend the midterm exam, you need to offer evidence for extreme circumstances (such as a note by your physician).

### **Final Exam**

The final exam will be held during the Examination Period. The final exam will consist of a small number of questions based on the lectures and the readings. Two-thirds of the questions will be about the second half of the class; one-third of them will survey the first part of the course. As with the midterm, no notes or texts will be permitted, but I will provide you with a list of possible questions.

### **Attendance**

Attendance is mandatory and will be checked at the beginning of each class. Unexcused non-attendance of 4 classes (lecture *and* recitation) will strongly reduce your participation grade.

**Academic integrity**

Cheating and plagiarism will **NOT** be tolerated. (The university's policy on academic integrity can be found at <http://www.fcas.pitt.edu/academicintegrity.html>).

**Special needs**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 216 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

**COURSE SCHEDULE**  
(Subject to revision as the semester proceeds)

**Wednesday 01/03**

Topic: Syllabus

**Monday 01/08 & Wednesday 01/10**

Topic: A Case Study: Female Orgasm

**Monday 01/ 15 Martin Luther King's Day No Class**

**Wednesday 01/17, Monday 01/22 & Wednesday 01/24**

Topic: Evolutionary Psychology: Principles

Reading: Pinker, Chapter 1.

**Monday 01/29 & Wednesday 01/31**

Topic: Evolution of Intelligence

Readings: Pinker 1997, Chapter 3.

Byrne, R. 2000. Evolution of primate cognition. *Cognitive Science* 24: 543-570.

**Monday 02/05 & Wednesday 02/07**

Topic: Evolution of Reasoning: Cheater-Detection

Readings: Pinker 1997, Chapter 5, 299-338.

Cosmides., L. and Tooby, J. 1992. Cognitive adaptations for social exchange. In J. Barkow et al. eds., *The Adapted Mind*, OUP (163-228).

**Monday 02/12 & Wednesday 02/14**

Topic: Evolution of Reasoning: Reasoning under Uncertainty

Readings: Pinker 1997, Chapter 5, 338-362.

Gigerenzer, G. and Hoffrage, U. 1995. How to improve Bayesian reasoning without instruction: Frequency formats. *Psychological Review* 102: 684-704.

**Wednesday 02/14: Deadline for the first assignment**

**Monday 02/19 & Wednesday 02/21**

Topic: Evolution of Emotions

Readings: Pinker 1997, Chapter 6

Nesse, R.M. 1990. Evolutionary explanations of emotions. *Human Nature* 1: 261-289.

**Monday 02/26**

Topic: Evolution of Morality

Hauser, M. 2006. The liver and the moral organ. *Social Cognitive and Affective Neuroscience* 1:214-220.

### **Wednesday 02/28 MID-TERM EXAM**

### **March 4-11 Spring break**

### **Monday 03/12**

*Topic:* Evolution of Familial Love: The Case of Stepparents

*Readings:* Pinker, Chapter 7, 425-460

Daly, M. and Wilson, M. 1988. Evolutionary social psychology and family homicide. *Science* 242: 519-524.

### **Wednesday 03/14**

*Topic:* Incest Taboo

*Readings:* Pinker 1997, Chapter 7, 425-460.

Lieberman, D., Tooby, J., and Cosmides, L. 2003. Does morality have a biological basis? An empirical test of the factors governing moral sentiments relating to incest. *Proceedings of the Royal Society B: Biological Sciences* 270: 819-826.

### **Monday 03/19 & Wednesday 03/22**

*Topic:* Evolution of Mate Choice

*Readings:* Pinker 1997, Chapter 7, 461-520.

Buss, D. 1989. Sex differences in human mate preferences. *Behavioral and Brain Sciences* 12: 1-14.

### **Monday 03/26 Deadline for the second assignment**

*Topic:* Evolution of Mate Choice: Jealousy

*Readings:* Buss, D. et al. 1992. Sex differences in jealousy. *Psychological Science* 3: 215-255

### **Wednesday 03/28**

*Topic:* Evolution of Music

*Readings:* Pinker 1997, Chapter 8.

Fitch, T. 2006. The biology and evolution of music: A comparative perspective. *Cognition* 100: 173-215.

### **Monday 04/02**

*Topic:* Evolutionary Theory and Psychiatry

*Readings:* Cosmides, L. and Tooby, J. 1998. Toward an evolutionary taxonomy of treatable conditions. *Journal of Abnormal Psychology* 108: 453-464.

### **Wednesday 04/04**

*Topic:* Anxiety

*Readings:* Marks, I. and Nesse, R. 1994. Fear and fitness: an evolutionary analysis of anxiety disorders. *Ethology and Sociobiology* 15: 247-261.

**Monday 04/09**

*Topic:* *Depression*

*Readings:* Price, J. et al. 1994. The social competition hypothesis of depression. *British Journal of Psychiatry* 164: 309-315.

**Wednesday 04/11**

*Topic:* *Post-Partum Depression*

*Reading:* Hagen, E. 1999. The functions of postpartum depression. *Evolution and Human Behavior* 20: 325-359.

**Monday 04/16**

*Topic:* *Sociopathy 1*

*Readings:* Blair, J. A cognitive developmental approach to morality: Investigating the psychopath. *Cognition* 57: 1-29.

**Wednesday 04/18**

*Topic:* *Sociopathy 2*

*Readings:* Mealey, L. 1995. The sociobiology of sociopathy. *Behavioral and Brain Sciences* 18: 523-541.