

# Philosophy of Cognitive Science

## Syllabus

**Instructor:** Brian McLoone (School of Philosophy)

**Course Type:** Elective

**Academic Hours:** 24 (8 meetings, 3 hours each)

**Meeting Info.:**

Monday: September 2 – October 14 (A-407)

10:30 – 11:50 (lecture); 12:10 – 1:30 (seminar)

Wednesday: October 16 (A-404)

15:10 – 16:30 (lecture); 16:40 – 18:00 (seminar)

**Email:** brianbmcloone@gmail.com (or bmcloone@hse.ru)

**Course website:** brianmcloone.com/teaching

**OH:** Wednesdays, 15:00-17:00, room A-207

**Final Exam:** October 25, from 12:00-13:30 in room A-407

### *Course Description*

Cognitive science is an interdisciplinary field that draws from anthropology, computer science, linguistics, philosophy, and psychology to explain how the mind works. This course seeks to provide students with an overview of the field, with a focus on those issues that are of particular relevance to philosophy. To do this, we'll look some of the most important philosophical debates that have taken place within cognitive science over the past fifty years. Some of these debates are "settled" (or, at least, people have moved on), while others are not. Topics include (but are not limited to): intentionality; weak and strong AI; consciousness; reductionism; conditional semantics; evolution and cognition; animal cognition; and innateness. There are no prerequisite for the course.

### *Learning Objectives*

The goal of this course is to provide students with a general understanding of some important philosophical issues within cognitive science and to allow students to appreciate how results from cognitive science can inform traditional philosophical debates about the mind.

### *Learning Outcomes*

Students will learn to critically read advanced philosophical and scientific literature to discuss controversial, nuanced issues with peers in a sophisticated manner.

## Course Plan and Readings

(\* indicates required reading, while \*\* indicates suggested reading. All readings are available from the HSE library or the course website.)

### Day 1: History of Cognitive Science (02/09)

\*Miller, George (2003) "The Cognitive Revolution: A Historical Perspective," in *Trends in Cognitive Sciences* 7(3): 141-144.

### Day 2: Symbol Manipulation and Intentionality (09/09)

\*Searle, John (1980) "Minds, Brains, and Programs," in *Behavioral and Brain Sciences*, 3: 417-457.

\*\*Rey, Georges (2003) J.M. Preston and M.A. Bishop (eds.) *Views Into the Chinese Room: New Essays on Searle and Artificial Intelligence*. Oxford University Press, pp. 201-225.

### Day 3: Consciousness (16/09)

\*Baars, Bernard J. (2017) "The Global Workspace Theory of Consciousness: Predictions and Results," in S. Schneider and M. Velmans (eds.) *The Blackwell Companion to Consciousness*. John Wiley and Sons, pp. 229-242.

\*\*Dennett, Daniel (2001) "Are We Explaining Consciousness Yet?," in *Cognition*, 79(1-2): 221-237.

### Day 4: Reductionism (23/09)

\*Fodor, Jerry A. (1974) "Special Sciences (Or: The Disunity of Science as a Working Hypothesis)," in *Synthese*, 28(2): 97-115.

### Day 5: Conditional Semantics (30/09)

\*von Fintel, Kai (2012) "Subjunctive Conditionals," in G. Russell and D.G. Fara (eds.) *The Routledge Companion to Philosophy of Language*. Routledge, pp. 466-477.

### Day 6: Innateness (07/10)

\*Spelke, Elizabeth and Katherine D. Kinzler (2017) "Core Knowledge," in *Developmental Science*, 10 (1): 89-96

\*\*Samuels, Richard. (2004) "Innateness in Cognitive Science," in *Trends in Cognitive Sciences*, 8: 136-141.

## **Day 7: Evolutionary Psychology (14/10)**

\*Cosmides, Leda (1989) “The Logic of Social Exchange: Has Natural Selection Shaped How Humans Reason? Studies with the Wason Selection Task,” in *Cognition* 31(3): 187-276.

\*\*Buller, David (2003) “Evolutionary Psychology: The Emperor’s New Paradigm,” in *Trends in Cognitive Sciences* 9(6): 277-283.

## **Day 8: Animal Minds (16/10)**

\*Hurley, Susan (2003) “Animal Action in the Space of Reasons,” in *Mind and Language*, 18(3): 231-257.

### *Grading System*

A student can achieve a maximum of 100 points for this course: 20 points for participation; 10 points for in-class quizzes; and 70 points for the final exam. I’ll then convert this score to a 10-point scale and round to the nearest integer (e.g., 85/100 becomes 9/10). Your “qualitative” score is based on the following scale: 0-3 (“fail”); 4-5 (“sufficient”); 6-7 (“good”); and 8-10 (“excellent”).

*Participation:* I expect each student to talk at least once during each class meeting. Doing so will result in a participation grade of 16/20. To achieve a participation grade higher than this, your comments, questions, and criticism should be more frequent and should be high quality.

*Quizzes:* Quizzes will be given randomly 3-4 times throughout the course, at the beginning of class, and will consist of 5 basic questions about the required reading for that day. The quizzes are designed to be easy if you have done the reading but hard if you have not. Your overall quiz score will be your average quiz score, on a 10-point scale. There are no make-up quizzes, but I will drop your lowest quiz grade.

*Final Exam:* There will be a final exam on October 25 from 12:00-13:30 in room A-407. The exam will include multiple choice and short answer questions, and it will cover material from the required readings and from lectures.

### *Examination Type*

One final exam and a collection of in-class quizzes (see above).

### *Method of Instruction*

For most class meetings, there will be a required reading and a recommended reading. Every student is to have *thoroughly read* the required reading before the class meets. Typically, during the lecture I will present some background content to contextualize the reading. Then, during the seminar, we’ll discuss the reading in a more casual, discussion-based format.

### *Accommodations*

If you require accommodations of *any* sort, please let me know after class, over email, or during office hours, preferably within the first week class.