PHIL 6370 Fall 2018-2019

# Philosophy of Cognitive Science: Cognitive Ontology

## **Course Description**

This class will focus on cognitive ontology, with special attention to cognitive constructs such as innateness, concepts, memory, emotion, and implicit bias. We will be particularly concerned with how to determine whether or not such constructs correspond to natural kinds. Readings will be drawn from the current work on the general topic of cognitive ontology, as well as from recent literature on particular case studies of cognitive constructs, in both philosophy and the cognitive sciences. On the one hand, we will be tackling the issue of the basic furniture of the mind-brain, with some attention to various views about the relationship between psychological kinds and neural kinds. But we will also be interested in these constructs in their own right, not just as potential candidates for cognitive kinds. The first few weeks will be devoted to cognitive ontology in general, the next few weeks will be focused on specific cognitive categories, and the last few weeks of the course will be left open for us to jointly choose some additional cognitive categories to discuss.

## **Course Requirements**

Weekly Comments and Class Participation (20%): As of Week 2 (Sept 17), comments on each week's readings will be due by 11:00 am each Monday morning before the seminar, on the Moodle discussion board. Comments should be approximately 300 words and take up some issue related to the readings; they are meant to raise questions and elicit discussion, not necessarily convey a polished argument or objection. Late comments will not be accepted and a comment cannot be fully credited unless you are present at the relevant class session. You have the option of skipping two weekly comments.

*Expository Presentation* (10%): After the first couple of weeks, presentation of the material will be shared between myself and other seminar members. The presentation schedule will be settled by the second meeting, based on preferences submitted at the first meeting.

*First draft of a term paper* (25%): This will be a paper of 2500 words, due on November 16, on a topic chosen from a list of topics that will be distributed around the middle of the semester. Based on comments on this first draft, students will be expected to revise and expand their papers.

*Presentation in mini-conference* (10%): During the final session of the course, we will have a series of brief conference-style presentations on topics related to the course content (these will be based on your term papers). Each of you will give a presentation based on the term paper and each of you will also be assigned the task of commenting on another student's paper. Papers should be distributed in advance to allow time for comments to be formulated.

*Term paper* (35%): This will be a paper of 5000 words, a revised version of the first draft, due on December 21.

### **Reading Schedule**

All readings should be available via the library; if you have trouble finding any of the readings, please contact me. Readings marked with an asterisk (\*) are required; other readings are recommended.

## Week 1 (Sept 10): Introduction

Gold, J., & Gold, I. (2012). The "Truman Show" delusion: Psychosis in the global village. *Cognitive neuropsychiatry*, 17(6), 455-472.

## Week 2 (Sept 17): Cognitive Ontology (1)

- \*Anderson, M. L. (2014). *After phrenology: Neural reuse and the interactive brain.* Cambridge, MA: MIT Press, Chapter 1.
- \*Barack, D. L. (forthcoming). Cognitive recycling. *The British Journal for the Philosophy of Science*.

## Week 3 (Sept 24): Cognitive Ontology (2)

- \*Price, C. & Friston, K. 2005. Functional ontologies for cognition: The systematic definition of structure and function. *Cognitive Neuropsychology 22(3)*, 262–275.
- \*Klein, C. 2012. Cognitive ontology and region- versus network-oriented analyses. *Philosophy of Science*, *79*(*5*), 952-960.
- Burnston, D. C. 2016. Computational neuroscience and localized neural function. *Synthese*, *193(12)*, 3741-3762.

#### Week 4 (Oct 1): Cognitive Ontology (3)

- \*McCaffrey, J. B. (2015). The brain's heterogeneous functional landscape. *Philosophy of Science*, 82(5), 1010-1022.
- \*Poldrack, R. A., & Yarkoni, T. (2016). From brain maps to cognitive ontologies: informatics and the search for mental structure. *Annual review of psychology*, *67*, 587-612.
- Khalidi, M. A. (2017). Crosscutting psycho-neural taxonomies: the case of episodic memory. *Philosophical Explorations*, 20(2), 191-208.

### [Oct 8: No Class – Reading Week]

## Week 5 (Oct 15): Memory

\*Michaelian, K. (2010). Is memory a natural kind?. *Memory Studies, 4(2),* 170-189.

\*De Brigard, F. (2014). Is memory for remembering? Recollection as a form of episodic hypothetical thinking. *Synthese*, *191*(2), 155-185.

Michaelian, K. (2011). Generative memory. *Philosophical Psychology*, *24*(3), 323-342. Robins, S. K. (2016). Misremembering. *Philosophical Psychology*, *29*(3), 432-447.

## Week 6 (Oct 22): Innateness

\*Griffiths, P. E. (2002). What is innateness?. The Monist, 85(1), 70-85.

\*Samuels, R. (2007). Is innateness a confused concept?. In Carruthers, P., Laurence, S., & Stich, S. P. (Eds.). *The innate mind* (Vol. 3). Oxford University Press.

Mameli, M., & Bateson, P. (2011). An evaluation of the concept of innateness. *Philosophical Transactions of the Royal Society of London B: Biological Sciences, 366*(1563), 436-443.

Khalidi, M. A. (2016). Innateness as a natural cognitive kind. *Philosophical Psychology*, 29(3), 319-333.

## Week 7 (Oct 29): No Class

Work on first paper drafts, schedule meetings with MAK

## Week 8 (Nov 5): Emotion

- \*Griffiths, P. (2004). Emotions as natural and normative kinds. *Philosophy of Science*, 71, 901-911.
- \*Lindquist, K. A., Wager, T. D., Kober, H., Bliss-Moreau, E., & Barrett, L. F. (2012). The brain basis of emotion: a meta-analytic review. *Behavioral and brain sciences*, *35*(3), 121-143.
- Izard, C. E. (2007). Basic emotions, natural kinds, emotion schemas, and a new paradigm. *Perspectives on psychological science*, 2(3), 260-280.
- Prinz, J. (2004). Which emotions are basic? In D. Evans and P. Cruse (Eds.), *Emotion, Evolution, and Rationality*, Oxford: Oxford University Press.

## Week 9 (Nov 12): Concepts

- \*Hampton, J. A. (2006). Concepts as prototypes. In B. H. Ross (Ed.), *The psychology of learning* and motivation: Advances in research and theory. Amsterdam: Elsevier.
- \*Camp, E. (2009). Putting Thoughts to Work: Concepts, Systematicity, and Stimulus-Independence. *Philosophy and Phenomenological Research*, 78:2, 275-311.
- McCaffrey, J. (2015). Reconceiving conceptual vehicles: Lessons from semantic dementia, *Philosophical Psychology*, 28:3, 337-354.
- McCaffrey, J., & Machery, E. (2012). Philosophical issues about concepts. *Wiley Interdisciplinary Reviews: Cognitive Science*, 3(2), 265-279.

### Week 10 (Nov 19): Implicit Bias

- \*Pearson, A. R., Dovidio, J. F., & Gaertner, S. L. (2009). The nature of contemporary prejudice: Insights from aversive racism. *Social and Personality Psychology Compass*, *3*(3), 314-338.
- \*Machery, E. (2016). De-Freuding Implicit Attitudes. In M. Brownstein and J. Saul (Eds.), *Implicit Bias and Philosophy*. Oxford University Press.
- Amodio, D. M. (2014). The neuroscience of prejudice and stereotyping. *Nature Reviews Neuroscience*, 15(10), 670-682.
- Del Pinal, G., & Spaulding, S. (2018). Conceptual centrality and implicit bias. *Mind & Language*, 33(1), 95-111.

#### Week 11 (Nov 26): Addiction

- \*Kincaid, H., & Sullivan, J. A. (2010). Medical models of addiction. In Ross et. al. (eds) *What is addiction*? (Cambridge, MA: MIT Press), 353-376.
- \*Pober, J. M. (2013). Addiction is not a natural kind. *Frontiers in psychiatry*, *4*, 123.

### Week 12 (Dec 3): Conference-style presentations

Details will be circulated

### Academic Honesty

All students are expected to abide strictly by standards of academic honesty. Please familiarize yourselves with the <u>University Senate policy on academic honesty</u> if you haven't done so already.

## Accessibility

Students with health-related, learning, physical, psychiatric, or sensory disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss their concerns with me *as soon as possible* so that appropriate arrangements can be made. Please also consult with <u>Student Accessibility Services</u>.

### Moodle

All registered students will be automatically added to the course's Moodle site, so please make sure that you can access Moodle and if you have any problems, please contact technical support (askit@yorku.ca). Readings won't be posted on Moodle, since they should all be readily available from the Library, but if there is any problem accessing any of them, we may post them there. Also, discussion forums will be set up on Moodle as of the second week of class.