

Courses ISC100J, ISC800J and ISC900J

The other minds problem: animal sentience and cognition

Summer School in Cognitive sciences, June 26 – July 6, 2018.

Université du Québec à Montréal (UQAM)

Room: DS-R510

Professor: Stevan Harnad

Syllabus

Course designation

This course explores variable topics in cognitive sciences.

Course description

Since Descartes, philosophers know that there is no way to know for sure what — or whether — others feel (not even if they tell you). Science, however, is not about certainty but about probability and evidence. The 7.5 billion members of the human species can tell us what they are feeling. But there are 9 million other species on the planet, from microbes to mammals, with which humans share biological and cognitive ancestry, but not one other species can speak: Which of them can feel — and what do they feel? Their human spokespersons — the comparative psychologists, ethologists, evolutionists, and cognitive neurobiologists who are the world's leading experts in "mind-reading" other species -- will provide a sweeping panorama of what it feels like to be an elephant, ape, whale, cow, pig, dog, chicken, mouse, fish, lizard, lobster, snail: This growing body of facts about nonhuman sentience has profound implications not only for our understanding of human cognition, but for our treatment of other sentient species.

Objective and Evaluation

1. A 20-page term Paper on a topic related to the themes of the summer school (50%)
 - Assessment criteria:
 - Do you understand the issues addressed in your paper? Are the key concepts well defined? Do you justify your remarks? Do the arguments support your thesis? Does the essay have a clear and coherent structure? Is your main thesis well stated and highlighted? Do you state clearly what you are trying to demonstrate in your paper? Is your style simple, easy to read and understand? Do you illustrate your thesis with examples? Do you present the views of other researchers?
2. On the Summer School blog post comments and pose questions on most if not all the lectures (20%)
3. Attendance: 10%
4. Active participation in afternoon Panel discussion (20%)

Language of Submission

Students in this course have the right to submit any written work to be graded in English or in French.

Course schedule

Tuesday, June 26, 2018

- 9:00 Joshua Plotnik - Thoughtful trunks: Application of elephant cognition for elephant conservation
- 11:00 Gordon Burghardt - Probing the Umwelt of Reptiles
- 14:00 Jon Sakata - Audience effects on communication signals

- 16:00 PANEL
- 19:30 Kristin Andrews - Ways other minds know other minds.

Wednesday, June 27, 2018

- 9:00 Sarah Brosnan - How do primates feel about their social partners?
- 11:00 Alexander Ophir - The cognitive ecology of monogamy
- 14:00 Gregory Berns - Decoding the dog's mind with awake neuroimaging
- 16:00 PANEL
- 19:30 Jonathan Birch - Animal Sentience and the Precautionary Principle

Thursday, June 28, 2018

- 9:00 To be confirmed
- 11:00 Sarah Wooley - Neural mechanisms of preference in female songbird
- 14:00 Simon Reader - Animal social learning: Implications for understanding others DS-R510
- 16:00 PANEL
- 19:30 Steven M. Wise, JD - Nonhuman personhood

Friday, June 29, 2018

- 9:00 John Ratcliffe - To be a bat
- 11:00 Mike Ryan - "Crazy love": Nonlinearity and irrationality in mate choice
- 14:00 Tomoko Ohyama - Action selection in a small brain (*Drosophila maggot*)
- 16:00 PANEL
- 19:00 Mario Cyr - Polar Bears

Saturday, June 30, 2018

- 9:00 Colin Chapman - Why Do We Want to Think People Are Different?
- 11:00 Vladimir Pravosudov - Chickadee spatial cognition
- 14:00 Jonathan Balcombe - The sentient world of fishes
- 16:00 PANEL
- 19:30 Malcolm MacIver: Computer simulation of the evolution of land vision

Monday, July 2, 2018

- 9:00 Suzanne Held (and Michael Mendl) - Pig cognition and why it matters
- 11:00 Larry Young - The neurobiology of social bonding, empathy and social loss in monogamous voles
- 14:00 Lori Marino - Who cetaceans are
- 16:00 PANEL
- 19:30 Anik Boileau - *Title to be confirmed*

Tuesday, July 3, 2018

- 9:00 Andrew Adamatzky - Slime mould: cognition through computation
- 11:00 Frantisek Baluska (and Stefano Mancuso) - What a Plant Knows and Perceives
- 14:00 Arthur Reber - A novel theory of the origin of mind: Conversations with a caterpillar and a bacterium
- 16:00 PANEL
- 19:30 *To be confirmed*

Wednesday, July 4, 2018

- 9:00 James Simmons - Now what is it like to be a bat?
- 11:00 Debbie Kelly - Spatial cognition in Food-Storing
- 14:00 Steve Phelps - Social Cognition across species
- 16:00 PANEL
- 19:30 Louis Lefebvre - Animal innovation: from ecology to neurotransmitters

Thursday, July 5, 2018

- 9:00 Michael Hendricks - Integrating action and perception in a small nervous system
- 11:00 Reuven Dukas - Insect emotions: mechanisms and evolutionary biology
- 14:00 Lars Chittka - Cognition in bees - behavioural capacities and neuronal models
- 16:00 PANEL
- 19:30 **Adam Shriver - *Title to be confirmed*

Friday, July 6, 2018

- 9:00 Carel ten Cate - Avian capacity for categorization and abstraction
- 11:00 Jennifer Mather - Do squid have a sense of self?
- 14:00 Steve Chang - Neurobiology of Monkeys Thinking About Other Monkeys
- 16:00 PANEL
- 19:30 **Colin Allen - *Title to be confirmed*