

# **PHIL3063**

# **Philosophy and Cognitive Science**

Session 1, Weekday attendance, North Ryde 2020

Department of Philosophy

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#### Disclaimer

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### **General Information**

Unit convenor and teaching staff

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Credit points

10

Prerequisites

130cp at 1000 level or above

Corequisites

Co-badged status

Unit description

The cognitive sciences have made great strides in our understanding of mind and cognition. This unit covers the philosophical foundations of cognitive science. It examines the successes of cognitive science as well as some of the problems it currently faces - such as the nature of consciousness. It also looks at the recent challenge to computational approaches to cognition from the embodied and embedded movement and examines the importance of emotion and culture to understanding the mind and cognition. Some of the topics that are likely to be covered include (but are not limited to): representation and computation; pain; embodiment and body image; emotion; memory and the perception of time; moral cognition; the extended mind. No background in psychology or science is assumed.

# Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **Learning Outcomes**

On successful completion of this unit, you will be able to:

**ULO2:** Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.

**ULO1:** Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.

**ULO3:** Analyze and critically evaluate philosophical arguments.

**ULO4:** Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.

**ULO5:** Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

### **Assessment Tasks**

#### Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult iLearn for revised unit information.

Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

### **General Assessment Information**

Unless a Disruption to Studies request has been submitted and approved, (a) a penalty for lateness will apply – two (2) marks out of 100 will be deducted per day for assignments submitted after the due date – and (b) no assignment will be accepted seven (7) days (incl. weekends) after the original submission deadline. No late submissions will be accepted for timed assessments – e.g. quizzes, online tests.

# **Delivery and Resources**

#### Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19. Please check here for updated delivery information: <a href="https://ask.mq.edu.au/account/pub/display/unit\_status">https://ask.mq.edu.au/account/pub/display/unit\_status</a>

#### Required Reading:

There will be a core texts to read for each week of the course. It is mandatory that these be read as tutorial discussions and lectures are based on these. Quiz questions will focus on the weekly readings as well. The weekly readings will be available via the Leganto service, which is accessible through the ilearn. Additional optional readings will be made available electronically on the ilearn in each week.

#### **Technology Used and Required:**

We use an iLearn website, and the Echo360 lecture recordings. Any other material you need will be available through the iLearn website. We recommend you have access to a reliable internet connection throughout the semester.

#### **Assignment Submission:**

Assignments in this course will be submitted electronically, as word documents. There is no need for a coversheet - the iLearn assignment submission (Turnitin) involves declaring your details and honesty in submitting your work. Please note, we do not accept submission by email attachment.

### **Unit Schedule**

#### Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult <u>iLearn</u> for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit\_status

| Week and lecture topic              | Description   |
|-------------------------------------|---|
| Part one                            | RESEARCH PROGRAMS   |
| 1. Introduction                     | A general introduction to the topic of Philosophy of Cognitive Science. Covering a brief history of the cognitive science and providing a precis of the rest of the course.   |
| 2.<br>Computationalism              | This week we look at the most dominant and influential research program in many of the cognitive sciences: computationalism – the claim that the mind is like a computer. This session will outline the core features of computationalism.  |
| 3. Is computationalism Enough?      | This week begins by examining some classical criticisms of computationalism by John Searle and others. This then motivates the pursuit of alternative research programs. This session looks at connectionism: the position that the mind can be modelled by artificial neural nets and distributed processing networks.   |
| 4. Embodied<br>Cognitive<br>Science | A growing movement against classical computationalism is the insistence that one must take into account take how the mind has evolved as embodied and embedded in the world. This week we will examine the philosophical arguments and empirical evidence supporting this view.   |
| 5. The Encultured<br>Brain          | Building from the previous week, this session will examine the notion of how neurocognitive systems are embodied and embedded in environments more closely. We will look at cutting edge research – including work by members of MQ – that argues that human neurocognitive systems are profoundly shaped and transformed by their cultural environments.   |
| Part Two                            | SPATIAL COGNITION   |
| 6. Spatial<br>Cognition             | This part of the course focuses on a particular case study. Spatial cognition is heavily involved in almost all everyday cognitive activity and is also an incredibly interdisciplinary topic. This allows us to explore both ontological and methodological questions in detail. This week provides a general introduction to the topic and the subsequent three weeks focus on particular problem spaces. |
| 7. Navigation and Language          | This week we explore the impact that language can have on how we think and interact with spatial reasoning. We will also explore how differing sets of cultural artefacts and techniques can also influence navigational practices  |

| Mid Semester Break (Take a well-earned break) |  |  |
|---|--|--|
| 8. Perception and<br>Memory                   | Perception and memory are two core cognitive processes. This week we examine how they are involved in spatial cognition. We will look at the concepts, such as cognitive maps and spatial updating, and how these are impacted on by differing cultural tools and techniques.  |  |
| 9. Feeling at<br>Home                         | Our interactions with our physical environment are not just analytical and informational, they are also deeply phenomenologically profound to us. In this final week on the topic of spatial cognition we examine the experience of feeling at home, how this scaffolded by various features of the world and our own bodies, and how this topic is variously studied in a highly interdisciplinary manner.                                |  |
| 10. Essay Plan<br>Week                        | Students are to submit an essay plan this week. As such, there is no seminar scheduled.  |  |
| Part Three                                    | OTHER ANIMAL MINDS   |  |
| 11. Other Animal<br>Minds I                   | Having spent much of the course examining the philosophical questions about cognitive science only in regards to humans; in this final section of the course we branch out to consider the minds of other animals. This approach is necessary to attempt to overcome and begin to articulate a non-anthropocentric approach to cognitive science   |  |
| 12. Other Animal<br>Minds II                  | We will explore both classical debates and philosophical arguments in the Western tradition, as well as examining cutting-edge research in the various cognitive sciences and biology. We discuss whether other animals have minds and particular "higher" mental faculties, such as ToM, emotions, and consciousness. Whether humans are a unique species different from all other animals, or whether we are just another kind of animal |  |
| 13. Other Animal<br>Minds III                 | What are the methodological concerns in attempting to explore these questions? What are the implications of these questions and how we answer them – not only for how we understand and treat other animals, but also for how we think about our own minds, and the field of cognitive science itself?   |  |

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://staff.m.q.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy (Note: The Special Consideration Policy is effective from 4

  December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the <u>Student Policy Gateway</u> (https://students.m q.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you

need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

#### **Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

#### Results

Results published on platform other than <a href="mailto:eStudent">eStudent</a>, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in <a href="mailto:eStudent">eStudent</a>. For more information visit <a href="mailto:ask.mq.edu.au">ask.mq.edu.au</a> or if you are a Global MBA student contact <a href="mailto:globalmba.support@mq.edu.au">globalmba.support@mq.edu.au</a>

# Student Support

Macquarie University provides a range of support services for students. For details, visit <a href="http://students.mq.edu.au/support/">http://students.mq.edu.au/support/</a>

### **Learning Skills**

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- · Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

### Student Services and Support

Students with a disability are encouraged to contact the <u>Disability Service</u> who can provide appropriate help with any issues that arise during their studies.

# Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

# IT Help

For help with University computer systems and technology, visit <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.