PHL 363
Philosophy and Cognitive Science
S1 External 2015
Dept of Philosophy

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General Information

Unit convenor and teaching staff
Unit Convenor
Dr. Rachael Brown
rachael.brown@mq.edu.au
Contact via rachael.brown@mq.edu.au
Rm 726, Building W6A
Tuesdays, 2-3pm or by appointment

Credit points
3

Prerequisites
39cp or admission to GDipArts

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 http://students.mq.edu.au/student_admin/enrolmentguide/academicdates/

Learning Outcomes

1. Acquire a coherent and advanced knowledge of the methodology, concepts and arguments of cognitive science and philosophy.
2. Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
3. Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.

4. Analyze and critically evaluate philosophical arguments.

5. Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.

6. Reflect individual performance to identify opportunities for improvement.

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

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
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</thead>
<tbody>
<tr>
<td>Weekly Mini-Papers</td>
<td>50%</td>
<td>Weekly</td>
</tr>
<tr>
<td>Research Paper Plan</td>
<td>5%</td>
<td>Week 10 or 13/05/15</td>
</tr>
<tr>
<td>Research Paper</td>
<td>45%</td>
<td>05/06/15</td>
</tr>
</tbody>
</table>

Weekly Mini-Papers

Due: Weekly
Weighting: 50%

In preparation for each seminar (weeks 2-12), students will write a short (maximum 300 word) mini-paper presenting their considered reflections on the assigned readings. Topics and guidelines for these papers will be posted on iLearn.

Instructions for Internal Students: Internal students will bring a printed copy of their mini-paper to seminar each week to be submitted at the end of class. During class students will have a chance to reflect on their mini-paper and add comments. Papers will not be accepted late and will not be accepted without attendance at class. Papers will be returned graded with feedback at seminar the following week.

Instructions for External Students: External students will post their mini-paper to their personal blog on iLearn before midday each Wednesday. Students may add comments to their blog post subsequent to Wednesday's seminar. Papers will not be accepted late. Grades and feedback will be provided to students on iLearn before the seminar the following week.

Grading: Students will receive a grade out of 10 for each paper submitted. If a student does not submit a mini-paper they will be graded 0 out of 10 for that week. The final grade for this assessment will be the average of the 7 best of these grades.

This Assessment Task relates to the following Learning Outcomes:
• Acquire a coherent and advanced knowledge of the methodology, concepts and arguments of cognitive science and philosophy.
• Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
• Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
• Analyze and critically evaluate philosophical arguments.
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• Reflect individual performance to identify opportunities for improvement.
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Research Paper Plan
Due: **Week 10 or 13/05/15**
Weighting: 5%

Students will produce a detailed plan of the research paper for peer review. An planning worksheet will be provided on iLearn.

**Submission Instructions for Internal Students:** Students will bring their plan to seminar in week 10 for peer discussion and feedback.

**Submission Instructions for External Students:** External students will post their essay plans to the external students forum and provide feedback on at least one other plan.

**Grading:** Pass/Fail.

This Assessment Task relates to the following Learning Outcomes:
• Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
• Analyze and critically evaluate philosophical arguments.
• Reflect individual performance to identify opportunities for improvement.

Research Paper
Due: **05/06/15**
Weighting: 45%

Students will write a research paper of 3000 words which provides a careful critical examination, based on reasons, argumentation and evidence, of a set topic. A list of topics will be made available on iLearn in week 6, and the research paper must answer one of these set questions.
Submission: Turnitin submission on iLearn
Grading: Students will receive a grade out of 100 for the paper.

This Assessment Task relates to the following Learning Outcomes:
  • Acquire a coherent and advanced knowledge of the methodology, concepts and arguments of cognitive science and philosophy.
  • Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
  • Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
  • Analyze and critically evaluate philosophical arguments.
  • Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.
  • Reflect individual performance to identify opportunities for improvement.
  • Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

Delivery and Resources
Seminars will be held Wednesdays from 12-2pm in Rm232, C5A.

The unit website is available through iLearn (http://ilearn.mq.edu.au). It contains essential resources for the unit, and you are expected to log in on a regular basis.

Unit Schedule

<table>
<thead>
<tr>
<th>Week (Date)</th>
<th>Seminar Topic</th>
<th>Work Due This Week</th>
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</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
<td></td>
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</tr>
<tr>
<td>1 (25/2)</td>
<td>Introduction to course, What is cognitive science?</td>
<td></td>
</tr>
<tr>
<td>2. THEORIES OF COGNITION</td>
<td></td>
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<tr>
<td>2 (4/3)</td>
<td>The mind as a classical computer</td>
<td>Week 2 Mini-Paper</td>
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<tr>
<td>Week</td>
<td>Topic</td>
<td>Assignment</td>
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<tr>
<td>3 (11/3)</td>
<td>Is computation enough?</td>
<td>Week 3 Mini-Paper</td>
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<tr>
<td>4 (18/3)</td>
<td>Alternative 1: Connectionism</td>
<td>Week 4 Mini-Paper</td>
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<tr>
<td>5 (25/3)</td>
<td>Alternative 2: Embodied Cognition</td>
<td>Week 5 Mini-Paper</td>
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<tr>
<td>6 (1/4)</td>
<td>Alternative 3: Extended Cognition</td>
<td>Week 6 Mini-Paper</td>
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<tr>
<td></td>
<td><strong>SEMESTER BREAK</strong></td>
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<tr>
<td>7 (22/4)</td>
<td>Explanation in cognitive science</td>
<td>Week 7 Mini-Paper</td>
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<tr>
<td>8 (29/4)</td>
<td>What can functional neuroimaging tell us about the mind?</td>
<td>Week 8 Mini-Paper</td>
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<tr>
<td>9 (6/5)</td>
<td>Are you a killjoy or a romantic? Investigating animal minds</td>
<td>Week 9 Mini-Paper</td>
</tr>
<tr>
<td>10 (13/5)</td>
<td>Case Study: Place cells, navigation and memory</td>
<td>Week 10 Mini-Paper, Research Paper Plan</td>
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<tr>
<td></td>
<td><strong>3. COGNITIVE SCIENCE, VALUES AND SOCIETY</strong></td>
<td></td>
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<tr>
<td>11 (20/5)</td>
<td>Case study: Are there gender differences in the brain?</td>
<td>Week 11 Mini-Paper</td>
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<tr>
<td>12 (27/5)</td>
<td>Case Study: What is it to be mentally disordered?</td>
<td>Week 12 Mini-Paper</td>
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</table>
Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Disruption to Studies Policy: http://www.mq.edu.au/policy/docs/disruption_studies/policy.html The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/student_conduct/

Results

Results shown in iLearn, 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 eStudent. For more information visit ask.mq.edu.au.

Student Support

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

Learning Skills

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

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Enquiry Service

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

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

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/. When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Acquire a coherent and advanced knowledge of the methodology, concepts and arguments of cognitive science and philosophy.
- Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
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- Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.
- Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

Assessment tasks

- Weekly Mini-Papers
- Research Paper Plan
- Research Paper
Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systematically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

**Learning outcomes**

- Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
- Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
- Analyze and critically evaluate philosophical arguments.
- Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.
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- Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

**Assessment tasks**

- Weekly Mini-Papers
- Research Paper Plan
- Research Paper

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

**Learning outcomes**

- Acquire a coherent and advanced knowledge of the methodology, concepts and arguments of cognitive science and philosophy.
- Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
• Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
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• Reflect individual performance to identify opportunities for improvement.
• Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

**Assessment tasks**

• Weekly Mini-Papers
• Research Paper Plan
• Research Paper

**Creative and Innovative**

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

**Learning outcomes**

• Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
• Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
• Analyze and critically evaluate philosophical arguments.
• Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.
• Reflect individual performance to identify opportunities for improvement.

**Assessment tasks**

• Weekly Mini-Papers
• Research Paper Plan
• Research Paper

**Effective Communication**

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to
read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

**Learning outcomes**

- Synthesize and analyze information from a variety of sources concerning foundational concepts and arguments in cognitive science and philosophy.
- Articulate clearly and coherently philosophical arguments in written and oral form to a variety of audiences.
- Analyze and critically evaluate philosophical arguments.
- Apply acquired knowledge and skills in the context of philosophical and cognitive science scholarship.
- Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

**Assessment tasks**

- Weekly Mini-Papers
- Research Paper Plan
- Research Paper

**Commitment to Continuous Learning**

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

**Learning outcomes**

- Reflect individual performance to identify opportunities for improvement.
- Understand and critically evaluate evidence from a broad range of disciplines including cognitive science, psychology and neuroscience.

**Assessment tasks**

- Weekly Mini-Papers
- Research Paper Plan
- Research Paper
Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

**Learning outcome**

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

**Assessment tasks**

- Weekly Mini-Papers
- Research Paper