PSYC 3012 - Cognition, Language & Thought

Unit of Study Code: PSYC3012

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Format of Unit: 2 x 1 hour lectures/week x 13 weeks
1 x 2 hour tutorial for 10 weeks

Credit Point Value: 6 Credit Points

Prerequisites: Intermediate Psychology units including
PSYC (2013 or 2113) and at least one other Intermediate Psychology unit from
PSYC (2011 or 2111), PSYC (2012 or 2112), PSYC (2014 or 2114).

Assessment: Classwork:
- Performance in class debate in Week 4 (5% of total)

- Written prac exercise based on debate material (10% of total mark).
  Due Date: BEFORE 4pm, Monday 13th April 2015 (Week 6)

- Prac report*: 2000 word prac report (30% of the total mark)
  Due Date: BEFORE 4pm, Friday May 15th 2015 (Week 10).

- Practical class attendance and participation (5% of the total mark)
  NB: It is a requirement to pass the course that you attend a minimum of 80% of
  prac. IT IS YOUR RESPONSIBILITY TO ATTEND THE PRAC YOU ARE ENROLLED IN
  TO BE MARKED AS PRESENT. i.e. Tutors cannot be expected to notify other tutors
  to confirm your attendance if you do not attend your enrolled prac.

Final Examination*: (50% of the total mark)
Multiple choice and short-answer questions based on lectures, set readings and
material from practical classes

*Completion of these assessments is compulsory to pass this unit. Students who fail to complete any of these
components will receive an Absent Fail, regardless of their marks in other assessments.

NB It is very important that you read the general administrative guidelines for submission of written work,
penalties for late work, assessment criteria, procedures for applying for extensions and special consideration in the
Undergraduate Student Guide available on eLearning or via the link below:
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Note that students who apply for and are granted either special arrangements or special consideration for
examinations in units offered by the Faculty of Science will be expected to sit any replacement assessments in the two
weeks immediately following the end of the formal examination period. Later dates for replacement assessments may
be considered where the application is supported by appropriate documentation and provided that adequate
resources are available to accommodate any later date.
Unit of study general description:

This unit extends the theories and methods of investigating memory and attentional processes discussed in PSYC2013 to consider a number of domains of higher cognitive processing. The first part of the course will focus on language processing and consider the processes involved in spoken language perception and comprehension, and reading. The remainder of the course will deal with the cognitive processes involved in categorisation reasoning and decision-making. The practical program will expose students to a variety of the research methods used to investigate higher cognitive processes, develop their understanding of how these methods can be used to investigate hypotheses about mental processes and consider applications of cognitive research to real-world problems and issues.

Graduate Attributes and Student Learning Outcomes for Cognition Language and Thought (PSYC3012)

This course is structured around the graduate attributes associated with the scientist-practitioner model, the basis for the training of psychologists in Australia and internationally. Graduate Attributes are the generic skills, abilities and qualities that students should acquire during their university experience and the School of Psychology is committed to providing an environment to promote these skills. In addition, this unit of study will provide students with generalised and transferable skills that will also be useful in careers outside psychology.

The following graduate attributes and student learning outcomes will be developed through lectures, practical classes and assessment activities. They will be assessed in the two written assessments, participation in practical classes and in the final examination.

1: Knowledge and Understanding of cognitive psychology and psycholinguistics

Display basic knowledge and understanding major concepts, theoretical perspectives, empirical findings, and historical trends in cognitive psychology and psycholinguistics

Student learning outcomes:
(i) To stimulate an interest in the contribution of cognitive psychologists to understanding the cognitive processes involved in adult language abilities, skilled behaviour and reasoning.
(ii) Ability to describe, explain and evaluate research studies examining the influence of basic word recognition skills on skilled reading.
(iii) Ability to describe a number of developmental language disorders, and to understand the principles of skilled behaviour that differentiate experts from novices in a range of areas from motor skills to reading to reasoning.

2: Research Methods in cognitive psychology and psycholinguistics

Understand, apply and evaluate basic research methods in cognitive psychology and psycholinguistics, including research design, data analysis and interpretation, and the appropriate use of technologies.

Student learning outcomes:
(i) To develop a critical understanding of the major methods of research in these areas.
(ii) To critically assess major theories and research findings in these areas.
(iii) To interpret statistical analyses.
(iv) Use basic web-search, word-processing, database, spreadsheet, and data analysis programs.
(iv) Understand issues in the design and conduct of basic studies to address psychological questions: formulating research questions; undertaking literature searches; critically analyse theoretical arguments and empirical studies; form testable hypotheses; operationalise variables; choose an appropriate methodology; make valid and reliable measurements; analyse data and interpret results; and write research reports.

3: Critical Thinking Skills in cognitive psychology and psycholinguistics

Respect and use critical and creative thinking, sceptical inquiry, and the scientific approach to solve problems related to thought and behaviour.

Student learning outcomes:
(i) Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, and intellectual engagement.
(ii) Evaluate the quality of information, including differentiating empirical evidence from speculation.
(iii) Evaluate issues and behaviour using different theoretical and methodological approaches.
(iv) Use reasoning and evidence to recognise, develop, defend, and criticise arguments and persuasive appeals.
4: Values in cognitive psychology and psycholinguistics
Value empirical evidence; act ethically and professionally; understand the complexity of sociocultural, linguistic and international diversity and the complexity of research with cognitively/linguistically impaired populations

Student learning outcomes:
(i) Recognise and respect social, cultural, linguistic, spiritual and gender diversity.
(ii) Use information in an ethical manner (e.g., acknowledge and respect the work and intellectual property rights of others through appropriate citations in oral and written communication)
(iii) Be able to recognise and promote ethical practice in research, including research with populations with cognitive impairment.
(iv) Promote evidence-based approaches to understanding behaviour.

5: Communication Skills in cognitive psychology and psycholinguistics
Communicate effectively in a variety of formats and in a variety of contexts

Student learning outcomes:
(i) Write a standard research report using American Psychological Association (APA) structure and formatting conventions.
(ii) Write effectively in a variety of other formats (e.g., essays, experimental designs and hypotheses) and for a variety of purposes (e.g., informing, analysing, arguing).
(iii) Demonstrate effective oral communication skills in various formats (e.g., debate, group discussion, class presentation) and for various purposes.
(iv) Collaborate effectively, demonstrating ability to: work with groups to complete projects within reasonable timeframes; manage conflicts appropriately and ethically.

6: Learning and the application of cognitive psychology and psycholinguistics
Understand and apply psychological principles to personal and social issues.

Student learning outcomes:
(i) To develop an awareness of the applications of the theories and research findings in cognitive psychology and psycholinguistics.
(ii) Apply psychological concepts, theories, and research findings to solve problems in everyday life and in society.
(iii) Understand major areas of applied cognitive psychology and psycholinguistics

Evidence of learning:

Assessment will include a 2000 word prac report based on an experiment done in tutorials, a written prac exercise, performance in verbal prac exercises, and active participation in tutorials. At the end of semester, a multiple-choice and short-answer examination will assess knowledge of the entire course focusing particularly on lecture material and assessable readings, but which will include some material exclusively covered in tutorials.
Psycholinguistics

Issues in speech perception; theories of lexical organization and retrieval.

Language comprehension: syntax and morphology; processing of sentences, text and discourse

Developmental language dysfunctions: implications of Autism, Williams Syndrome and Specific Language Impairment for understanding the relationship between language and other cognitive abilities.

Issues in skilled visual word recognition and reading: differences between spoken and written language; dual route, interactive and connectionist theories of lexical retrieval; word recognition and reading comprehension

Specific Reading Disability: diagnosis, causes, implications for understanding success and failure in learning to read and for methods of reading instruction

Analogy, categories and concepts.

Theories of similarity, analogy, and knowledge representation: What does what we find similar, and how we compare things reveal about how we think and what we know?

Categories and concepts: How are categories represented? How are they learned? How are they used in reasoning? And how does this vary across individuals and cultures?

Applications to education: How can research on analogical reasoning and category learning be utilized to improve learning and reasoning the classroom?

Skilled behaviour, expertise and reasoning

Cognitive determinants of skilled behaviour: attention, automaticity and control; declarative and procedural memory; stages of skill acquisition; implicit learning

Expertise: How do experts and novices differ? the role of representation and working memory in expertise; talent vs practice as the basis of expertise; theories of skill acquisition; how do you become an expert?

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<thead>
<tr>
<th>WEEK (beginning)</th>
<th>LECTURES</th>
<th>TUTORIALS</th>
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<tbody>
<tr>
<td>1 (2/3)</td>
<td>Course overview and administrative issues 1. Introduction to psycholinguistics (SA) 2. Spoken language recognition (SA)</td>
<td>NO TUTORIALS</td>
</tr>
<tr>
<td>2 (9/3)</td>
<td>3. Spoken language recognition (SA) 4. Sentence comprehension (SA)</td>
<td>PRAC REPORT DATA COLLECTION INSTRUCTIONS FOR DEBATE</td>
</tr>
<tr>
<td>3 (16/3)</td>
<td>5&amp;6. Developmental language dysfunctions (SA)</td>
<td>• Speech perception and word recognition demos • Debate preparation</td>
</tr>
<tr>
<td>4 (23/3)</td>
<td>7&amp;8. Theories and issues in skilled reading (SA)</td>
<td>CLASS DEBATE PRESENTATION • Developmental disorders</td>
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<tr>
<td>5 (30/3)</td>
<td>9&amp;10. Reading development, reading disability: implications for teaching reading (SA)</td>
<td>Teaching reading</td>
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<td><strong>NON-TEACHING WEEK</strong></td>
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<td>6 (13/4)</td>
<td>Written DEBATE CRITIQUE DUE Monday 13th April 11. Similarity &amp; knowledge representation. 12. Introduction to categorisation</td>
<td>DATA RETURN AND REPORT INSTRUCTIONS Categorisation</td>
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<td>7 (20/4)</td>
<td>13. Induction with categories and analogies. 14. Different kinds of categories</td>
<td>Bilingualism and cognition</td>
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<td>8 (27/4)</td>
<td>15. Learning categories. 16. Applications to education</td>
<td>Connectionist models</td>
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<tr>
<td>9 (4/5)</td>
<td>17 &amp; 18. Introduction to skilled behaviour (BB)</td>
<td>Implicit learning &amp; Skill</td>
</tr>
<tr>
<td>11 (18/5)</td>
<td>21. Basic concepts in reasoning (BB) 22. Theories of Reasoning (BB)</td>
<td>Reasoning 1</td>
</tr>
<tr>
<td>12 (25/5)</td>
<td>23. Determinants of expertise (BB) 24. Theories of skill acquisition and expertise (BB)</td>
<td>Reasoning 2</td>
</tr>
<tr>
<td>13 (1/6)</td>
<td>25. Theories of reasoning (BB) 26. Integrating reasoning and skill (BB)</td>
<td>NO TUTORIALS</td>
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SA=Sally Andrews; BB=Bruce Burns; MG=Micah Goldwater
REFERENCES FOR LECTURE MATERIAL

Textbook:

(In particular Chapters 9-12 & 14)

Lecturers will recommend additional references for specific lecture topics in their lectures Additional references related to practical class work will be provided in practical classes

If you want to check definitions of linguistic terms:
PSYC3012 Assessment Summary

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<tr>
<th>What?</th>
<th>When?</th>
<th>When Returned?</th>
<th>% Assessment</th>
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<tbody>
<tr>
<td>Class Debate</td>
<td>Week 5 (30\textsuperscript{th} March-2\textsuperscript{nd} April) in tutorials – you must attend your allocated tutorial</td>
<td>On-time submissions returned 4PM Monday, 11\textsuperscript{th} May*</td>
<td>5%</td>
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<tr>
<td>Practical Exercise</td>
<td>Online before 4pm Monday, 13th April</td>
<td>*NB – this is the last possible date and time for submission of the assignment with or without extensions</td>
<td>10%</td>
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<tr>
<td>Practical Report (2000 word Essay)</td>
<td>Online before 4pm Friday, 15th May</td>
<td>On-time submissions returned 4PM Friday 12\textsuperscript{th} June*</td>
<td>30%</td>
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<tr>
<td>Participation and attendance</td>
<td>Throughout semester</td>
<td>*NB – this is the last possible date and time for submission of the assignment with or without extensions</td>
<td>5%</td>
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<tr>
<td>Exam</td>
<td>During exam period at the end of semester</td>
<td>University Final Results Release Date</td>
<td>50%</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>100%</strong></td>
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