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: 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).

Time Commitment: 4 hours face to face per week; 8 hours private study per week (including up to 1 hour preparation for each tutorial)

Attendance
The Faculty of Science has a minimum 80% attendance requirement for a student to pass any unit of study. Lectures: Audio recordings are made of most lecture content and most slides are posted online. However, unavoidable technical problems with recordings sometimes occur and lectures often include demonstrations and examples that will not be available or accessible in online materials. Recordings and lecture notes are intended to be used for revision or to catch up on occasional, unavoidable absences. They are not designed to substitute for lecture attendance.

Tutorials: The tutorial program is designed to complement the lecture content by elaborating examples of issues raised in lectures, allowing students to gain hands-on experience of major experimental procedures and providing opportunities for discussion and questions. Your two written assignments will also depend on activities conducted within tutorials and you will sometimes work in groups with other students in your tutorial class. Tutorial attendance and participation is recorded and contributes to assessment. It is therefore very important that you attend your allocated tutorial class to be marked as present. If you are unable to attend your allocated tutorial because of illness or exceptional circumstances, inform your tutor of the reasons for your absence and whether you attended another tutorial class that week – do not rely on tutors checking whether you attended another class when you are absent from your allocated tutorial. Do not submit Special Consideration for missed tutorials – talk to your tutor.

Where you can get more information
If you have questions, you should first look for the answer in this Unit of Study outline and other items posted on the eLearning site for PSYC3012. This document provides details about assessment due dates, weightings and closing dates, which will not change during the semester, except in exceptional circumstances. You should regularly check the eLearning site for notices, copies of lecture and tutorial notes and detailed information about assessment tasks and marking criteria. Lecturers, tutors and
administrative staff will not answer emails about information that is already available in these sources. Specific queries about PSYC 3012 that are not addressed in these sources should be directed to the Coordinator or your tutor.

The School of Psychology web page, and particularly the 2nd & 3rd year link on the ‘Current Students’ page, contains a range of relevant information, contacts and links. General administrative enquiries related to Psychology should be directed to the Psychology Counter (Ground Floor, Brennan-MacCallum Building, opening hours 12.30-4pm Mon-Fri during semester), or emailed to psychology.info@sydney.edu.au. Note that administrative staff may not answer requests for information that is readily available on eLearning sites or the School and University webpage.

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<tr>
<th>PSYC3012 Assessment Summary</th>
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<tr>
<td><strong>Component</strong></td>
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<tr>
<td>Class Debate</td>
</tr>
<tr>
<td>Critique Individual assignment based on debate topic Compulsory#</td>
</tr>
<tr>
<td>Research Report (2000 words) Based on experiment completed in Week 2 tutorial Compulsory#</td>
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<tr>
<td>Participation and attendance</td>
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<tr>
<td>Final Exam Multiple choice and short-answer questions based on lectures, set readings and material from practical classes Compulsory#</td>
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<tr>
<td><strong>Total</strong></td>
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#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.

Late penalties
You will receive a penalty of 2% of the maximum value of the Critique and Research Report assignments (e.g. 2 marks / 100) for each calendar day (or part thereof) it is late, up to the closing date of the assignment, after which no more submissions will be accepted.
Disruptions to your study
The Faculty of Science does not permit informal special consideration. If your assessments are disrupted by illness, misadventure or unavoidable community commitments, you must apply for formal Special Consideration online at: www.sydney.edu.au/science/cstudent/ug/forms.shtml#special_consideration. All Special Consideration requests are processed centrally and Professional Practitioners certificates will be cross checked with medical service providers. Keep a hard copy of all documentation you submit. If you have (or develop) a continuing issue, register with Disability Services here: www.sydney.edu.au/disability

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. Such replacement exams may adopt a different format from the original exam. 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 written critique, a 2000 word research report, based on an experiment done in tutorials, 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 including some material exclusively covered in tutorials.
SYLLABUS

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?

# LECTURE/TUTORIAL TIMETABLE

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<tr>
<th>WEEK (beginning)</th>
<th>LECTURES</th>
<th>TUTORIALS</th>
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| 1 (29/2)         | Course overview and administrative issues  
|                  | 1. Introduction to language psycholinguistics (SA)  
|                  | 2. Spoken language recognition (SA) | NO TUTORIALS |
| 2 (7/3)          | 3. Language acquisition (SA)  
|                  | 4. Models of spoken word identification | PRAC REPORT DATA COLLECTION INSTRUCTIONS FOR DEBATE  
|                  | • Discussion of bilingualism |
| 3 (14/3)         | 5. Sentence processing (SA)  
|                  | 6. Developmental language dysfunctions (SA) | • Speech perception and word recognition demos  
|                  | • Class time for debate preparation |
| 4 (21/3)         | 7 & 8. Reading disability and reading development (SA) | DEBATE  
|                  | • Developmental disorders |
| **NON-TEACHING WEEK** | | |
| 5 (4/4)          | 9 & 10. Theories and issues in skilled reading (SA) | DATA RETURN AND RESEARCH REPORT INSTRUCTIONS  
|                  | Individual DEBATE CRITIQUE DUE Friday 8th April | • Concept development |
| 6 (11/4)         | 11. Implications for reading instruction (SA)  
|                  | 12. Similarity & knowledge representation (MG) | • Teaching reading |
| 7 (18/4)         | 13. Introduction to categorisation (MG)  
|                  | 14. Different kinds of categories (MG) | • Connectionist models |
| 8 (25/4)         | 15. Learning categories (MG)  
|                  | 16. Applications to education (MG) | • Cognition and education |
| 9 (2/5)          | 17 & 18. Introduction to skilled behaviour (BB) | NO TUTORIALS |
|                  | RESEARCH REPORT DUE Friday 6th May |
| 10 (9/5)         | 19. Basic concepts in skilled behaviour (BB)  
|                  | 20. How do experts and novices differ? (BB) | • Implicit learning & Skill |
| 11 (16/5)        | 21. Basic concepts in reasoning (BB)  
|                  | 22. Theories of Reasoning (BB) | • Reasoning 1 |
| 12 (23/5)        | 23. Determinants of expertise (BB)  
|                  | 24. Theories of skill acquisition and expertise (BB) | • Reasoning 2 |
| 13 (30/5)        | 25. Theories of reasoning (BB)  
|                  | 26. Integrating reasoning and skill (BB) | NO TUTORIALS |

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 tutorial classes*

If you want to check definitions of linguistic terms: