Psychology 301

Semester 1 Course Outlines 1997

History and Philosophy of Psychology

Cognitive Psychology

Theoretical Bases of Development

Intelligence

Learning and Motivation

Measurement and Psychometrics

Social Psychology
301 - History and Philosophy of Psychology

Lecturers
Ms Alison Turtle
Dr T McMullen
Professor R Boakes

Historical Foundations
1. Scientific revolution and Descartes
2. British empiricism: Locke, Berkeley, Hume
3. Faculty Psychology
4. Neuroscience: Descartes to Helmholtz
5. Wundt and the founding of German psychology
6. Continental psychology after Wundt, including Binet and Gestalt psychology
7. Evolutionary theory
8. Psychology of adaptation, including James
9. Functionalism
10. Behaviourism
11. Applied psychology
12. Cognitive revolution

Prerequisites
1. Students intending to proceed to Psychology 4 would normally be expected to take both semesters of History and Philosophy of Psychology.
2. For students not intending to proceed to Psychology 4 this subject would normally be a prerequisite for the component offered in semester 2.

Text
301 - Cognitive Psychology

Lecturers
Dr Cyril Latimer
Dr Roslyn Markham

Working/short term memory
The traditional 'modal model' of short term memory. Components of working memory: the central executive, articulatory loop, visuo-spatial scratch pad. The role of working memory in tasks such as comprehension, reasoning and numerical calculation. Individual differences in working memory.

Memory retrieval processes
The implicit/explicit distinction. Theories of recognition and recall: the generation-recognition hypothesis, encoding specificity. The effect of context on retrieval: environmental, internal context, mood-state dependent effects and mood congruent effects.

Memory in the 'real world'
Autobiographical memories; prospective memory; metamemory

Differentiation of patterns
Sutcliffe's differential concept formation theory; feature analysis; conditional and unconditional orders of prototypes and features; experimental implications of differentiation

Eyemovement indices of pattern recognition processes
Eyemovement recording methods; contact lens methods; corneal reflection; electro-oculography (EOG); photo-electric methods. Restricted-viewing techniques, local and global processing, illustrative experimental results.

Connectionist models of pattern recognition
Single-layer perceptrons and the delta learning rule; the XOR problem; multi-layer architectures; back propagation of error and the generalised delta rule; the use of connectionist modeling in experimental investigations of pattern recognition.

Word Recognition
Models of reading and lexical access.
Theoretical Issues in Developmental Psychology
Examination of major issues addressed by developmental theory; Nature/nuture; Continuity/discontinuity in development; Age-stage relationships; Crucial periods in development.

Major Theoretical Approaches
An introduction of influential theories of development, discussing how the issues raised in 1 (above) are addressed by those theories and how the theories are applied in child rearing practice. Approaches to be examined include: Normative -descriptive (Gesell); Learning and Social Learning; Stage Theories (Erikson, Kohlberg), Ethological theories and Contextual theory (Vygotsky)

Theories of Cognitive Development
A critical evaluation of Piaget's theory in the light of recent evidence; Information processing approaches to the development of memory. Conceptual development. b) Piaget's approach contrasted with information processing approaches.

Social - Emotional Development, concentrating on early attachment

Recommended reading
- Miller, P.H. (1993) Theories of Developmental Psychology
Lecturer
Dr. Lazar Stankov (Mungo MacCallum Rm S474)

Aims: To provide an overview and critical platform to evaluate recent studies of individual differences in human cognitive abilities.

Lecture Topics

**Overview of structural theories of intelligence:**
Lecture 2: Multiple factor theories: L. Thurstone and H. Gardner.
Lecture 4: A closer perspective on hierarchical theories: The discovery of broad auditory function.

**Cognitive correlates of intelligence:**
Lecture 5: Elementary cognitive processes and intelligence.
Lecture 6: Capacity theories of intelligence.
Lecture 7: The role of cognitive complexity in intelligence I.
Lecture 8: The role of cognitive complexity in intelligence II.

**The role of mental speed in intelligence:**
Lecture 9: Current status of the "neural efficiency hypothesis".
Lecture 10: Mental speed and intelligence: Conceptual issues.

**Studies on the borderline between personality and intelligence**
Lecture 11: Correlations between personality and intelligence.
Lecture 12: Confidence judgements in studies of intelligence.
Lecture 13: Is there emotional intelligence?

**Texts**
There is no single text for this course. The following material (listed in order of importance) is available in the Closed Reserve section of Fisher Library:


301 - Learning and Motivation

Lecturers
Professor R A Boakes
Dr Soames Job

Aims of course:
1. To introduce the fundamental concepts and more important research findings of contemporary learning theory and selected approaches to motivation;
2. To examine the application of such fundamental research to issues such as food choice, stress, health promotion and risk-taking;
3. To develop skills in reading primary sources in this area; and
4. To provide the opportunity for hands-on experience of planning and carrying out a research project.

Tutorial format: Starting in Week 2 regular tutorial meetings will be held at which students will be able to choose to be involved in a research project or to write two essays. These pieces of written work constitute the assessment of the tutorial component of the course. For students choosing to do the essays, there will be two essays of 1,000 words each. For those choosing to do the project, there will be a report of 2,000 words. Students must decide which they will do by the beginning of Tutorial 3 (in Week 4). Because it may not be possible to run both forms of tutorial in one time slot, students should be prepared to change tutorial times in order to obtain the form of assessment they have chosen.

Tutorials will begin with the group deciding on a project topic, developing the design of the experiment and planning the details. (The tutorials start with the project design because essay writing is very familiar, whereas group research work is not and this allows students to determine whether they wish to be involved in the project).

Selecting and designing the research should last until either Week 4 or 5. The experiment is then run. During this stage students may test subjects independently or work on a roster basis and tutorial meetings will be held to discuss progress at times that fit in with the experimental schedule.

Collection of results should be complete by Week 9 in time for a tutorial on analysis of the data. The tutorial in Week 10 will be devoted to discussion on writing the report, which is to be handed in at Griffith Taylor 416 after the tutorial in Week 11. The marked reports will be handed back in Week 13.

You should allocate at least 24 hours of tutorial time to this work over the semester, in addition to independent reading. This format is designed to allow you to become involved from start to finish in a meaningful piece of research on learning or motivation that is more than a replication of previous experiments. The more you put into it, the more valuable it will be. Limitations on available equipment will restrict the range of feasible experiments, but not to the extent that the choice of topics a group may come up with should be seriously limited. Projects both with rats and with human subjects will be available.

Essay option
Essays are made available for those less interested in research. Essay topic will be determined within the group. The tutorial program will involve reading and presentation of papers relevant to possible essay topics. Essays will be due in Weeks 9 and 11 and may be handed back in Week 13.
Collaboration vs independence: The project should be a team effort in which each member is expected to contribute the same amount of work towards developing the experiment, in terms of background reading and ideas on design and procedure, as well as towards the 'busy' work of actually carrying it out and analysing the data. Furthermore, there is likely to be considerable group discussion of what the results mean. On the other hand, writing a report has to be an individual effort, carried out independently of anyone else. Similar considerations apply to the essays, for which topics will be set in the tutorials.

Plagiarism: Please see the note on this on the Psychology 3 noticeboard. Whereas there are not likely to be major differences in the way that students from the same group write the Methods and Results sections in their reports, close similarity in the Introduction or Discussion sections will suggest that plagiarism may have taken place. In reports and essays you should also be careful to use your own words in writing and not 'borrow' even phrases or sentences from other works, even when these may seem to express your meaning better than you could. Close similarity of work will not be acceptable on the basis of claimed discussions, so please ensure that any discussions with other students are not sufficiently detailed as to allow significant similarity.

Assessment: 50% of the mark for this part of Psychology 3 is based on the report or essays (25% each). These should be handed in at the Psychology 3 office GT 416, not to your tutor. You should obtain a receipt. Note that late work cannot be accepted for marking after the return of assessed work to other students. 50% will be based on the final examination. For the latter two essay questions are to be answered, one from Part 1 of the lecture course and one from Part 2.
Deadline for submission of reports: Week 11.
Deadline for submission of essays: Weeks 9 and 11.

Extensions
In the event of illness or serious misadventure preventing a student from submitting a report before the handback date, students may be given permission to submit two (2) x 1000 word essays. Topics will be set by the relevant tutor. The usual guidelines for extensions, as outlined in the Administrative guidelines do not apply here.

Texts
The main text for the Learning component of Psychology 2 is suitable for many of the topics covered by the first nine lectures:

Appropriate alternatives include:
• Schwartz, B. Psychology of learning and motivation. New York: Norton (3rd ed: 1989), which presents the material from a Skinnerian perspective, but is particularly clear on the Rescorla-Wagner model.

From the opposite, cognitive, viewpoint the following presents the basic ideas of associative learning in a way that some of you may find highly illuminating:

For a detailed treatment of some of the topics presented in Lectures 1-7 the following often still provides the best analysis:

Similarly detailed treatment of the topics covered in Lectures 8-9 is provided by

Reading from the above will need to be supplemented with journal articles, as listed for the lectures below and as appropriate for project topics. Copies of the lecture reading should be available in Special Reserve, Fisher Library.
Lectures: topics and reading

Lecture 1: Learned helplessness in the aversive context.
- See Peterson et al. (1993), Chs. 1 and 2.

Lecture 2: Learned helplessness in the appetitive situation

Lecture 3: Attributional style, success and failure.

Lecture 4: Stress and food consumption

Lecture 5: Social learning in animals

Lecture 6: Fear in health promotion propaganda

Lecture 7: Optimism bias and contingency judgements

Lecture 8: Rescorla-Wagner model
- See Mazur (1990, 1994), Ch.5; Schwartz (1989); Dickinson (1980).
Lecture 9: Conditioned inhibition

Lecture 10: Contingency and context

Lecture 11: Latent inhibition

Lecture 12: Instrumental learning

Lecture 13: Food aversion learning
- See Mazur (1994), Ch.9.
Measurement and Psychometrics

Lecturer
Dr Joel Michell

Introduction to Psychological Measurement
Concept of Measurement. Approaches to measurement in Psychology; operationism; representationism and the classical approach; distinction between quantitative and non-quantitative variables; extensive measurement; conjoint measurement. Unidimensional scaling; Thurstone’s law of comparative judgement; unfolding; magnitude estimation; ranking.

Basic Psychometrics
Historical origins: The growth of psychological testing and the emergence of ‘classical’ test theory. The classical theory. A set of axioms and definitions, and some of their consequences; applications of the theory; problems with the interpretations of true score and error score; the different kinds of reliability; objective validity measurement theory and pragmatics. Item analysis and test construction. Distributions of test scores as functions of the distributions of item scores; item scoring formulae; correcting for omissions and for chance success.

Text

References
Social Cognition
The impact of social variables on perception; impression formation and theories of cognitive algebra; attribution theory; schema theory; heuristics; the impact of mood, emotion, temperament and personality on social cognition; examples of biases in thinking about social phenomena.

Social Skill
The measurement of social competence; a skills model of social performance; the acquisition of social skills; personal and situational influences on social skills; social skills in the workplace, the family and society; the effectiveness of training in social skills; the concept of social intelligence; strategic thinking in interpersonal encounters.

Social Motives

Altruism and helping behaviour
Altruism distinguished from helping behaviour; theories of helping behaviour; bystander intervention in emergencies; determinants of helping behaviour; reactions of the recipients of help.

Aggression
Theories of aggression - sociobiology, instinctual drives, frustration, social learning, agency theories; the role of aggression within a variety of institutions; the concept of social violence; the impact of violence in the media.

Recommended reference