



COGNITIVE PSYCHOLOGY MODULE HANDBOOK

Autumn Term 2017

NOTE:

Please read this document fully and carefully before your first lecture; it is likely that it will answer most questions that you have about the module.

This handbook covers the structure, content, and assessment information for this module.

For other queries, please consult the Psychology School Office:
Pevensey 1, 2A13 or psychology@sussex.ac.uk

Jennifer Mankin, Course Convenor

Table of Contents

Module Overview	2
Module Structure	2
Module Aims and Objectives.....	2
Summary of Module Content.....	2
Contacts	4
Course Convenor	4
Lecturers.....	4
Study Direct	4
Doctoral Tutors.....	4
Psychology School Office	4
Teaching Arrangements	5
Lectures	5
Practical and Seminar.....	5
Workshops and Seminars – Postgraduate Students Only	6
Coursework and Assessment.....	7
Coursework.....	7
Assessment.....	7
Resources.....	8
Getting Help.....	9
Help Flowchart.....	9
Study Direct Module Forums.....	9
Email	10
Practice Essays and Study Ideas.....	11
Practice Essays.....	11
Study/Discussion Topics.....	12
Reading List.....	14

Module Overview

This module covers a very broad range of exciting topics in Cognitive Psychology, including perception and sensation, attention, speech and hearing, language, thinking, and memory. The study of the mind predates modern scientific enquiry, but cognitive psychology as a science began only recently, and remains a fascinating and rapidly expanding area. The modern cognitive psychologist studies the workings of the mind using methods derived from early work in experimental psychology, artificial intelligence, and neurology, along newer methods in brain imaging.

Cognitive Psychology is a compulsory second year module for all undergraduate psychology students, and for all students in MSc and BSc in Experimental Psychology. Visiting and Exchange students from other schools wishing to take the module should seek permission from the course convenor. The module is designed to be accessible for students who have not studied science beyond GCSE standard.

Module Structure

This module consists primarily of lectures, delivered twice weekly, and one practical and related seminar. Postgraduate students have two additional sessions, a workshop and seminar, which take place every other week on even weeks of the semester. Please refer to your timetable on Sussex Direct for scheduling.

Module Aims and Objectives

The broad aim of this module is to give you an understanding of how people perceive, allocate attention, produce speech and hear, use language, think and remember. More specifically, the module aims:

1. To enable you to demonstrate an up-to-date knowledge of the issues covered in Cognitive Psychology. A full list of these topics is available in this handbook.
2. In written work, to give you further practice in comprehending, summarising and analysing technical material.
3. In the practical and follow-up seminar, to further your understanding of some of the concepts presented in the module through (a) conducting of experiments (including data collection and data analysis), (b) through reading of relevant original literature, and (c) by writing about your findings in a written report (see below).

Summary of Module Content

This course covers a very broad range of fascinating topics in cognitive psychology. We will start by reviewing the sensory systems with a special focus on vision. Then we will consider how attention relates to perception, action and consciousness. We will then go on to consider voice and speech perception and the psychology of language more generally, including how we read and recognize words, and the relationship between language and thought. This will be followed by a series of lectures that explore the complexities of human thought – covering issues such as how we reason and make decisions, and the idea that we have two different methods of thinking, intuitive and deliberative. The course concludes with an exploration of how we remember and use memories, including a discussion of the different types of memories, how memories are encoded and retrieved (or forgotten), and how memory breaks down in amnesia.

The *Sensation and Perception* part will explore how humans sense and perceive the world around them. We will particularly focus on vision. We will discuss whether we see things as they really are, the effect of context and knowledge on visual perception, and how two people can see the same image differently. We will also discover how sensory information is processed at the retina and cortex, and how this gives rise to visual perception and visual illusions. A lecture on colour perception will illustrate the role of evolution, genes and environment on perception.

The *Attention* section deals with one of the most intriguing puzzles of cognitive neuroscience: The behavioural and neuronal consequences of focusing our attention and of what grabs our attention to capture our awareness. We aim to introduce the notion of how much of our perception is a product of choice or selective attention. Consider the sensory smorgasbord you are served up moment to moment; not all of it can be consumed/processed so the act of selection is critical. We will investigate the nature of attention, the stages at which it can act, and the consequences of selective attention.

The *Memory* part of the module investigates the different types of memory – everything from how we remember to ride a bike to how we remember events from our childhood. We will explore how these different types of memory are underpinned by different brain regions, and the theories proposed to explain how memories are encoded, stored and retrieved. By the end of these lectures you should have a good understanding of how memory works in the brain and several answers to the age-old question, “how can I improve my memory?”

The *Speech and Hearing* part will focus on human vocal communication. More specifically, we will see how sound is produced, how it can be described and how it is perceived. We will then see how the linguistic elements of speech (phonemes) are produced and organised in speech utterances, and what problems this raises for the perception of speech. We will also discuss the properties of the human voice and see how it conveys non-verbal information in speech communication. Finally we will review and evaluate the evidence available to the study of the evolution of speech.

The *Language* part of the module goes a step further and investigates how people learn, understand, and use language. We will begin with some of the major ideas in the cognitive study of language, such as how language is learned and whether language is innate and essential to thought. We will next explore the meaning of words and how they represent ideas and concepts. We will then expand this across languages and cultures, addressing bilingualism, indirect and cultural uses of language, and linguistic relativity. Finally, we will look at how we can learn about language through people whose language experiences or abilities differ due to brain injury, learning difficulties, or other neuropsychological conditions.

The *Thinking* part of the module looks at a variety of aspects of thinking, some of which can occur rapidly and with little or no apparent effort and others of which are time-consuming and difficult. It has been proposed that two systems, with different properties, underlie these two types of thinking. We investigate these two systems, and how they are related, primarily in the domains of judgement, risk and decision-making. Throughout, we consider the impact of the two types of thinking in everyday life, and the implications for questions about human rationality and irrationality.

Contacts

Course Convenor

This module is convened by Jennifer Mankin, a teaching fellow in the School of Psychology. You are welcome to contact her about the module content, delivery, and assessment during her office hours, available posted on her office door or on the University website.

Office: Pevensey 1, 2B20 Phone: ext. 6650 Email: J.Mankin@sussex.ac.uk

Lecturers

Several lecturers, who are experts in their respective topics, jointly teach on this module. You are welcome to contact them about specific lecture content during their office hours, available posted on their office doors or on the University website. They are listed below by the topic that they teach.

NOTE: All phone numbers are university extensions; please call 01273 before the number if calling from an outside line. All email addresses have a @sussex.ac.uk domain.

Section	Lecturer	Office	Phone	Email
Sensation/Perception	Dr John Maule	Pev2 5B7	873300	J.Maule
Attention	Dr Sophie Forster	Pev1 2C11	876654	S.Forster
Memory	Dr Peggy St. Jacques	Pev1 2C5	873878	P.StJacques
Speech and Hearing	Dr David Reby	Pev1 2C10	877334	D.Reby
Language	Jennifer Mankin	Pev1 2B20	876650	J.Mankin
Thinking and Judging	Prof Alan Garnham	Pev1 2B12	678337	A.Garnham

Study Direct

Open forums will be available on [the module Study Direct site](#), in addition to module content (including readings, practical materials, and lecture slides and recordings). Posting to the forum is a good way to get an answer that can help other students as well. See “Getting Help” for more tips and information on using Study Direct.

Doctoral Tutors

The practical and seminar sessions will be run by a team of excellent Doctoral Tutors. These tutors will introduce themselves in the practical sessions.

Psychology School Office

All queries besides module content, delivery, and assessment should be directed to the School Office. This includes scheduling, group allocations, absences, deadlines, and all other administrative enquiries.

Office: Pevensey 1, 2A13 Phone: x6638 Email: psychology@sussex.ac.uk

Hours: 9am – 5pm Monday – Friday during term time.

Teaching Arrangements

Lectures

The following table shows the detailed lecture schedule. This schedule is intended **only** to outline the topics for each week and the lecturers who will deliver each section. For all timetabling information, including rooms and times, please refer to Sussex Direct.

Section	Week	Lecture	Topic	Lecturer
Introduction	Week 1	1	Introduction to Module	J Mankin
		2	Introduction to sensation and perception	J Maule
Sensation and Perception	Week 2	3	Vision	J Maule
		4	Colour perception	J Maule
Attention	Week 3	5	Attention	S Forster
		6	Early & Late Selection in Attention	S Forster
	Week 4	7	Determinants of Selection in Attention	S Forster
		8	Attention & Cognitive Control	S Forster
Memory	Week 5	9	Working Memory	P St Jacques
		10	Long Term Memory	P St Jacques
	Week 6	11	Memory Encoding & Consolidation	P St Jacques
		12	Memory Retrieval	P St Jacques
Speech and Hearing	Week 7	13	Sound production and perception	D Reby
		14	Speech production and perception	D Reby
	Week 8	15	Categorical perception of speech sounds	D Reby
		16	Evolution of speech & language	D Reby
Language	Week 9	17	Cognitive aspects of language	J Mankin
		18	Words and concepts	J Mankin
	Week 10	19	Culture, metaphor, and bilingualism	J Mankin
		20	Language conditions and disorders	J Mankin
Thinking	Week 11	21	Two Systems for Thinking; Two Selves	A Garnham
		22	Judgement and Decision Making	A Garnham
	Week 12	23	Judgement and Decision Making	A Garnham
		24	Judgement and Decision Making (concluded); The Broader Picture	A Garnham

Practical and Seminar

All students have been allocated to a group that will meet twice in the term, once for the practical in Week 5 and once for the seminar in Week 6. The practical will be held in groups of 20 to 26 (two seminar groups together), and the seminar will be held in groups of 10 to 13. Information about seminar groups and tutors are available via Sussex Direct.

NOTE: Please check your timetable carefully and keep your schedule open for both the practical and seminar sessions. **It will not be possible to switch groups at the last minute**, due to health and safety concerns regarding the capacity of classroom space. Any changes to your group assignment must be done **in advance** by contacting the School of Psychology Office.

Details of the practical will be provided in full in the first meeting in Week 5. It is **imperative** that you attend the practical and the follow-up seminar, so that you have the background information and data on which to base the assessed practical report for the module. If there are legitimate circumstances (e.g. illness) for non-attendance at a seminar, you should email psychology.absences@sussex.ac.uk to report this, as well as letting your seminar tutor know.

Practical – Week 5

The aim of the practical in week 5 is to give you practical experience in participating in and conducting a psychology study in a specific area of Cognitive Psychology. This practical will generate the data that you will analyse and report for your Lab Report coursework assessment. You will also have an opportunity for guided reading of some research papers relevant to the practical, and you should gain a better insight and understanding of the relevance the findings. A brief overview will also be provided regarding the correct format and style expected for psychology reports.

Seminar – Week 6

The practical will be followed by a seminar in week 6. The seminar provides an opportunity to discuss tips and guidelines for analysing and writing up your findings, as well as discussing any issues relating to the practical, before you finalise your practical report.

Workshops and Seminars – Postgraduate Students Only

You have been allocated to a seminar group, which will meet regularly during the term. On even-numbered weeks of the term (that is, Weeks 2, 4, 6, 8, 10, and 12), you will have two sessions: a student-led workshops followed by a faculty-led discussion seminar. Full details of room bookings and timetabling will be disseminated through Sussex Direct.

During the [student-led workshops](#), you will work in smaller groups. You will be given material (journal articles, online experiments, etc.) and be asked to discuss this material and prepare feedback to the group as a whole. Detailed instructions will be provided before or during the seminar by each topic tutor.

During the [lecturer-led discussion seminar](#), you will then have the opportunity to delve more deeply into the topics through a seminar session.

Coursework and Assessment

As with other Sussex modules, you are expected to attend all classes, lectures, seminars, etc. Your mark for this module will be based on the lab report and the unseen exam.

Coursework

Lab Report

This report is a formal scientific report, up to 2000 words in length, documenting the experiment that will be conducted in the practical session in Week 5. This report should include an abstract, an introduction covering previous research in the topic, a description of the methods and participants, a summary of the results including relevant statistical analyses, and a discussion of these results in the context of the field. Further details will be provided regarding the nature and scope of the report on Study Direct.

Although you will be working in your practical group on data collection, **you must write up your practical report independently**. You can find information about the rules and procedures for academic misconduct, including collusion, on the [Skills Hub website](#) or on the [University's Examinations and Assessments website](#).

Unseen Exam

The two-hour unseen examination is divided into three sections:

1. 40 (undergraduate) or 20 (postgraduate) multiple-choice questions
2. Ten (10) short answer questions. You must attempt every question.
3. Eight (8) essay questions, from which you should attempt one.

A sample paper is available on the Teaching Pages for this module on Study Direct, but **past papers are not available**. You should write some practice essays to prepare for the exam, and some suggested titles are provided below.

Deadlines

See Sussex Direct assessment deadlines for the lab report due date. The unseen examination will be scheduled during the mid-year assessment period. Details for how, when, and where to submit/attend your assessments will be available on Sussex Direct.

Assessment

Marking

All marking is moderated by the convenor to ensure that assessment is conducted appropriately, in a fair and reliable manner, and consistently in accordance with the approved marking criteria.

NOTE: Marks involving academic judgment, including the mark on your lab report and the short and long answer portions of the exam, are **not subject to appeal**. If you are dissatisfied with your mark, you should contact your marker and arrange a meeting to discuss with them why they awarded the mark, and how you can improve. However, you should have no expectation that this will result in a change in the mark. For more information about appeals, see the [University's Governance page on academic appeals](#).

If you don't feel that you have had sufficient feedback to help you improve, then you should discuss this with your marker. If you believe that a marker is not providing adequate feedback on a consistent basis, then you may discuss this with the module convenor, who can rectify the situation.

Resources

The University provides many different resources for students to develop and improve their abilities, prepare for assessments, and understand and improve based on marks and feedback. The following information may be useful:

- The School of Psychology's [Examinations and Assessments information page](#):
 - Submitting your work
 - Missing a deadline, late penalties, and exceptional circumstances
 - Plagiarism and Collusion - Academic Misconduct
 - Assessment criteria
 - Preparing for and taking exams
 - Managing your studies and completing your work
- The University [Skills Hub](#):
 - How to approach reading and research
 - Writing and assessments
 - Academic integrity
 - Revision and examinations

A variety of assessment modes are used to develop and test different types of knowledge, skills and aptitudes. The assessment modes have been approved to test the course and module learning outcomes. Written submissions usually form an integral part of assessment at all levels. Written submissions include essays, reports, logs etc as appropriate to the module and the skills that you are being expected to develop. Examinations usually focus more on your ability to use your knowledge of the subject, rather than simply testing your memory for facts. Feedback is provided to support you in future assessments.

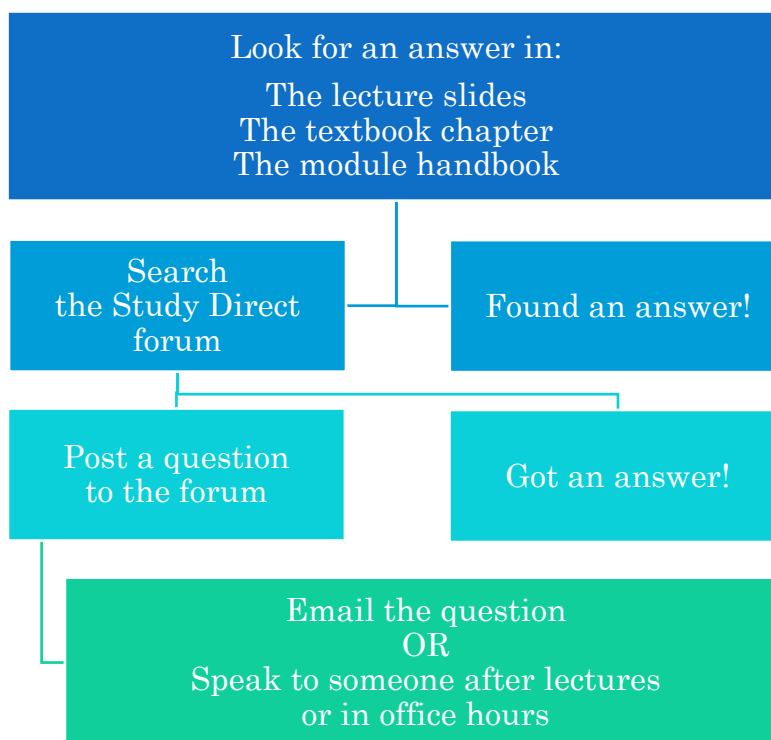
Unseen examinations are typically used to assess your level of knowledge and/or understanding of the discipline without the support of textbooks, notes or internet resources, unless these have been specifically permitted by the examination rubric. For students registered with the Student Support Unit an alternative mode may be approved as a Reasonable adjustment with the Student Support Unit. However, when, in accordance with the academic judgement of the School, where an unseen exam has been approved for a module to assess competence standards, learning outcomes and any accreditation requirements, an alternative mode may not be approved as a Reasonable Adjustment for a student registered with the Student Support Unit. If you have any concerns, please discuss these with the Student Support Unit, who will liaise with the school.

Getting Help

There are numerous resources for this module, which should enable you to find your own answers. The best place to start is to review your lecture notes and the forum posts and answers on [Study Direct](#). If your question is about module organisation, then read this handbook or look at Study Direct.

If you can't find what you need, then search the Study Direct forums (see below). If you can't find an answer, then post the question to the forum; if you need an answer, then the chances are other people will want to know too. In the unlikely event that you don't get an answer within 2 – 3 days, then talk to the appropriate person during office hours, after a lecture, or by email.

Help Flowchart



Study Direct Module Forums

The module uses a question and answer forum available on study direct. It can be used for questions to the lecturers, doctoral tutors, or other students, as long as they are clearly useful for others. The forums are a good way to discuss things related to the course and for you to get feedback as you work through the module. They are also there to encourage you to help each other, so in many cases you can answer each other's questions. The best way to learn is to explain things to someone else! So do not hesitate to reply to others' queries if you think you know the answer. Of course the module convenor, lecturers and/or doctoral tutors will step in if erroneous information is given.

Before posting a query related to the module organization, lecture content, or practicals, please check the module handbook, lecture slides/handouts, and/or practical instructions

very carefully. We will not respond to posts if the answer to the question is in one of these documents.

We expect that the forum will be used appropriately and constructively. Some tips to keep in mind:

- During term time, the module convenor, lecturers, and doctoral tutors check the forums regularly **during normal working hours** (Monday to Friday, 9am – 5pm), so **you can expect answers within 2 working days** (or earlier).
 - To enable faster responses, please address your question to the person you would like a response from.
- Forums are organised with particular topics, so please post your questions to the most relevant topic.
- Please search the forums for answers to your question before asking it, and remember that questions that can be answered directly by reading the module handbook or lecture slides will not be given a detailed response.
- The forums should not be used to post questions that are specific to an individual student and/or of a personal nature (please use email or office hours instead).

Email

The forums should be your first line of enquiry in most cases, except if you have a query that is of an individual and/or personal nature. In general, questions related to the module organisation should be directed to the module convenor, whereas questions related to specific lectures or practicals should be directed to lecturers or doctoral tutors.

During term time, the module convenor, lecturers, and doctoral tutors check emails regularly **during normal working hours** (Monday to Friday, 9am – 5pm), so you can expect answers **within 2 working days** (or earlier). Emails with questions that require more than yes/no response or a couple of sentences should be addressed in person during office hours.

When writing and sending your emails, please keep in mind the following etiquette:

- It is important that you **include a clear subject line with the course code** (C8551) or name (Cognitive Psychology) that describes exactly what the subject is (e.g., C8551 Sussex Timetable Clash). Emails with blank or less descriptive subject lines are more easily missed.
- Keep messages short and to the point.
- Once drafted, it's a good idea to re-read your email before you press 'send'.
- Avoid multiple topics in the body of the message that don't match the subject line.
- Please indicate your full name when signing off your email so that we can distinguish you as an individual from other students.
- Think before you forward emails that you have received related to the module. They may contain information that is confidential or expressly for you only.

Practice Essays and Study Ideas

Practice Essays

Although essays are not required on this module, writing some practice essays will give you an invaluable opportunity to practice for the essay component of the unseen examination. So, we strongly suggest that you try some essays as you work your way through the module.

It would be an excellent idea to organise yourselves into some small groups (perhaps, but not necessarily, seminar groups) and try marking and discussing each other's essays. You should aim for essays of about 1500 words and we have provided some titles below. Note that the essay titles are mainly based on lecture material, but you should expect to use additional material from seminars and texts in order to produce a satisfactory answer.

These essays should be written with the following aims in mind:

- To help you understand better the core content presented in lectures
- To go into specific topics in greater depth than lectures
- To enhance your ability to précis and present key concepts in cognitive psychology
- To critically evaluate empirical evidence in light of cognitive theories

All of the recommended books have extensive bibliographies, through which you can trace primary literature, if you need them for essay work. Bear in mind that in an exam, an essay based solely on lecture and textbook material (so called "secondary sources") is unlikely to gain the very highest marks, so you should aim to supplement your reading with at least some primary sources.

Perception essay topics:

- What is the contribution of bottom-up and top-down processing to visual perception?
- What are the different retinal and cortical cell types involved in vision?
- What are colour after-effects and how do they work?

Memory essay topics:

- How useful is the addition of the episodic buffer to Baddeley's model of working memory?
- Is it helpful to draw a distinction between short-term and long-term memory?
- What has the study of amnesia revealed about the structure of long-term memory?
- Outline the mechanisms that can lead to forgetting in long-term memory
- How useful is the distinction between episodic and semantic memory?
- Are memories ever truly "implicit"?
- What type of memories can be formed in the absence of awareness?

Attention essay topics:

- What is selective attention? Give examples that bring out its breadth and range.
- What type of stimuli are particularly likely to cause "bottom up" attentional capture?
- Distinguish between early and late selection. How does perceptual load affect attentional selection?
- Outline the relationship between attention and cognitive control.

Speech and hearing essay topics:

- What is the frequency of a sound and how is it perceived?
- What is categorical perception?
- What is co-articulation, how does it affect speech perception?
- What are the key adaptations necessary for the evolution of human speech?

Language essay topics:

- Compare and contrast two accounts of word meaning.
- What are the benefits and drawbacks of bilingualism?
- How does metaphor shape cognition and use of language?
- Discuss the claim that the language we speak determines our thinking.

Thinking essay topics:

- What are the characteristics of the two systems of human thought?
- What are the “two selves” involved in human thinking, and what facts does the distinction between the two explain?
- What are the three Kahneman and Tversky heuristics for making judgements and what aspects of judgement do they explain?
- What biases in thinking and reasoning have been recognised and how are they related to one another?
- How are Utility Theory and Prospect Theory related to one another? What facts about human decision making is Prospect Theory intended to explain?
- Does the idea of two systems of human thought help to integrate findings from different strands of research on thinking?

Study/Discussion Topics

As well as writing some practice essays, you might find it useful to organise your reading around some particular topics. Again, getting together in groups to share notes and ideas on these topics is a good study strategy. For all questions that cognitive psychology addresses, you should try to keep in mind both the empirical evidence (What are the key observations? What do they tell us?), and the theories that have been proposed to explain them. Below are some suggested topics with associated questions, but you could also come up with some of your own.

Visual illusions

- What do visual illusions tell us about vision?
- How can receptive fields explain some visual illusions?

Individual differences in sensation and perception

- What is the evidence that individuals vary in how they sense and perceive the world?
- What are potential sources for this variation?

The source filter theory of Speech production

- What is the fundamental frequency? What are formants?
- How is verbal information encoded in speech sounds?

Categorical perception

- How can CP be evidenced experimentally?
- Is it speech specific?

- Is it innate or is it acquired?

Evolution of speech and language

- What are the anatomical prerequisites for the evolution of speech?
- What is the gestural theory for the origin of speech?
- Can we estimate when, how and why speech and language evolved?

Attentional capture

- What is the difference between “top down” and “bottom up” attentional capture?
- How could attentional settings for the task we are performing inadvertently cause distraction? Give examples.
- Is purely “bottom up” or “stimulus driven” attentional capture possible?

Individual differences in attention and cognitive control

- How does working memory capacity affect attention?
- What do individual differences tell us about the relationship between attention, cognitive control and mind wandering?

Early versus late selection and Load Theory

- How does the cocktail party effect impact the early filtering account of attention?
- How can Load Theory explain inattention blindness?
- What is the difference between cognitive load and perceptual load?

Working memory

- Should working memory be considered as “memory” rather than “thinking”?
- Given that there are different components of working memory, is the concept useful?
- What are the links between working memory and long-term memory? Which theoretical models address this?

Episodic memory and semantic memory

- How are these concepts defined? Is there any overlap?
- Does neuropsychology support the distinction?
- Can episodic memories become semantic in nature?

Memory retrieval

- How important is your current context for retrieving memories?
- Why can memory retrieval fail?
- Why is retrieving a memory not like playing back a video?
- How would you implant a false memory in someone else?

The nature of the human language faculty

- What is the evidence that language is innate?
- What is the evidence that language is *not* innate?
- Is there such thing as a universal grammar of all languages?

Word reading and dyslexia

- How does the (English) writing system work?
- What mechanisms can readers of English use to read words aloud?
- What sorts of problems do dyslexics have with reading and how can these be accounted for by models of word recognition?

Bilingualism

- What benefits does learning more than one language convey?
- What is the evidence for or against a “critical period” of native language learning?
- How are multiple languages represented and connected in the brain?

Language and Thinking

- What is the Sapir-Whorf hypothesis?
- Do we need language for complex thought?
- Does the answer depend on the definitions of the concepts “language” and “thinking”?
- How does metaphor function and inform cognition?

The Nature of Thinking

- What are the two types of thinking?
- How do they explain the existence of biases in thinking?
- How can these biases be overcome?

Rationality and Irrationality

- How can rationality be defined?
- What do the various possible definitions have to say about whether people are irrational?
- Is there a valid “in principle” argument that shows we must be rational?

Judgement, Risk, and Decision Making

- How are judgement and decision-making related to one another?
- Why is it often difficult to make accurate judgements (of probability)?
- What factors make it difficult to assess risk properly?
- What other factors affect decision-making?
- Why are quick decisions sometimes better than more considered ones, and what factors influence when they are?

Reading List

General Texts

For this module, the main reading to supplement the lectures is based around chapters from texts, as well as some original papers. There are many second level texts in Cognitive Psychology that cover the module material reasonably well (they also cover other aspects of Cognitive Psychology).

Taking into account coverage of the material, availability of the textbook, price, and other factors, the best textbook is:

**Margaret Matlin. *Cognition* (6th/7th/8th/9th editions). John Wiley.
Library Location: (QZ 1000 Mat)**

The library also has 20+ copies of the sixth edition. In addition, there is currently one copy of the 5th edition of Matlin (published 2003, so probably not much different from the 6th), numerous copies of the 4th edition (1998).

We also recommend two other texts, which cover the content for the language, memory and thinking parts of the module well:

Nick Braisby & Angus Gellatly (2005). *Cognitive Psychology*. Oxford: Oxford University Press. (QZ 1000 Cog). (Memory: Chapters 8-9).

Mike Eysenck and Mark Keane (2010). *Cognitive Psychology: A Student's Handbook* (6th edition). Hove: Psychology Press
(the library has copies of the previous, 5th edition at QZ 1000 Eys).
(Language: Chapters 10-12; Thinking: Chapters 13-16).

The library has 15 copies of the first and 23 copies of the second.

NOTE: Please refer to the module's ASPIRE list (link on Study Direct), for updated reading lists, including direct links to online articles, digitised book chapters and other library resources (ebooks and hard copies).

Specific texts and other optional information will also be uploaded in the topic sections for each lecture.

Other General Texts

Because of the number of students on the module, library copies of the main texts soon disappear from the shelves. Other cognitive psychology texts, with similar coverage, which you could use as alternatives (e.g. to prepare for seminars) include:

Robert Solso (2001). *Cognitive Psychology* (sixth edition). Boston: Allyn and Bacon (QZ 1000 Sol, 28 copies) [seventh edition, Solso, MacLin and MacLin, now published]

Sternberg, R. (2003). *Cognitive Psychology* (3rd edition). Thompson Wadsworth. (QZ , 1010 Ste, 1 copy) [the latest edition, by Sternberg, Sternberg, and Mio, 2011 is the 6th]

Ashcraft, M. (2002). *Cognition* (3rd edition). Upper Saddle River, NJ: Prentice Hall. (QZ 1000 Ash, 6 copies) [the latest edition, by Ashcraft and Radvansky, 2009 is the 5th]

Medin, D., Ross, B. and Markman, A. (2004). *Cognitive Psychology* (4th edition). Hoboken, NJ: Wiley. (QZ 1010 Med, 1 copy) [the 5th Edition is due Autumn 2012]

Quinlan, P. T. & Dyson, B. J. (2008). *Cognitive psychology*. Harlow: Pearson Education. (QZ 1010 QUI – 5 copies)

A more elementary text, with useful introductory material, is:

Parkin, A. (2000). *Essential Cognitive Psychology*. Hove: Psychology Press. (QZ 1000 Par, 38 copies)

Lecture Specific Reading Lists

The lists below are indicative and only up-to-date at the time of the handbook publication. The Aspire online list contains a complete list of reading material (including journal articles) organised by lecture.

Sensation and Perception

For an overview of general principles of sensation and perception, methods, and approaches see:

Mather, G. (2006). *Foundations of Perception*. Psychology Press. (BF 311 MAT – 19 copies)
– or 2nd edition, 2009. Chapter 1.

Sternberg, R.J. & Sternberg, K. (2009). *Cognition*. Belmont, CA: Wadsworth Cengage Learning. p.53-68, pdf on Study Direct.

For a clear and detailed read about vision, including an excellent chapter on colour vision:

Snowden, R., Thompson, P. & Troscianko, T. (2006). *Basic Vision: an introduction to visual perception*. First Edition. (QU 4592 SNO – 15 copies)

These texts are good general texts on sensation and perception:

Foley, H. J. & Matlin, M. W. (2010). *Sensation and perception* (5th Edition). Boston: Allyn & Bacon. (QZ 310 FOL – 12 copies)

Goldstein, E.B. (2007). *Sensation and Perception* (7th Edition). Belmont, CA: Wadsworth Cengage Learning. (QU 4590 GOL)

Wolfe, J., Kluender, K.R. & Levi, D.M. (2005). *Sensation and Perception*. Massachusetts: Sinauer Associates. (QU 4590 SEN)

Attention

For general reading on the topic, the Quinlan and Dyson chapter includes excellent empirically detailed experiments in the area which will add to your understanding of how research in attention is conducted and progressed.

Chapter 8, Quinlan, P. T. & Dyson, B. J. (2008). *Cognitive psychology*. Harlow: Pearson Education. (QZ 1010 QUI – 5 copies)

Gazzaniga, Ivry and Mangun make the interaction of mind and brain in the investigation of attention accessible without compromising on the intricacies.

Chapter 12, Attention & Consciousness in Gazzaniga, M, Ivry, R. B., Mangun, G. R. (2009). *Cognitive Neuroscience: The Biology of the Mind*.

Memory

The best general introduction to the content of the lectures is chapter 10 of:

Quinlan, P. T. & Dyson, B. J. (2008). *Cognitive psychology*. Harlow: Pearson Education. (QZ 1010 QUI – 5 copies)

Short-term and Working memory is covered in all of the standard texts (e.g. Matlin), although a particularly good summary is chapter 9 of:

Nick Braisby & Angus Gellatly (2005). *Cognitive Psychology*. Oxford: Oxford University Press. (QZ 1000 Cog)

See also the journal article: Baddeley, A. (2000). The episodic buffer: a new component of working memory? *Trends in Cognitive Sciences*, 4, 417-423.

A very good summary of encoding into long-term memory, forgetting, and retrieval is chapter 8 of:

Nick Braisby & Angus Gellatly (2005). *Cognitive Psychology*. Oxford: Oxford University Press. (QZ 1000 Cog)

Long-term memory is also covered in Chapter 7: Long-Term Memory: Encoding, Retrieval, and Consolidation of:

Goldstein, E.B. (2015). *Cognitive Psychology*. (4th Edition) Belmont, CA: Wadsworth Cengage Learning.

Also good is chapter 5 of:

Margaret Matlin (2004). *Cognition* (6th edition). John Wiley. (QZ 1000 Mat).

See also the journal article: Greenberg, D.L. & Verfaellie, M. (2010). Interdependence of episodic and semantic memory: Evidence from neuropsychology. *Journal of the International Neuropsychological Society*, 16, 748-753.

Implicit memory is covered in most general memory chapters and also chapters on consciousness. The best place to start is chapter 8 (sections on procedural knowledge and implicit memory) and chapter 15 (section on implicit cognition):

Nick Braisby & Angus Gellatly (2005). *Cognitive Psychology*. Oxford: Oxford University Press (QZ 1000 Cog)

Disorders of memory are covered well in:

Groome, D. (2014). *An Introduction to Cognitive Psychology*. Hove, UK: Psychology Press.

Current theories of memory consolidation are covered well in the journal articles:

Moscovitch et al. (2006). The cognitive neuroscience of remote episodic, semantic and spatial memory. *Current Opinion in Neurobiology*, 16, 179-190.

Squire, L. R. & Bayley, P.J. (2007). The neuroscience of remote memory. *Current Opinion in Neurobiology*, 17, 185-196.

Speech and Hearing

These two texts from the bundle have short sections that are relevant to this topic:

Klein, S.B. & Thorne, B.M. (2007). *Biological Psychology*. Worth Publishers. Chapter 7: p228-236.

Matlin, M.W. (2009). *Cognitive Psychology*. Wiley. Chapter 2: p55-61.

Two excellent sources for the first three lectures are:

Halliday, (1998). *The Senses and Communication*. Berlin: Springer. Chapter 3 (digitised resource available online).

Bernham, A. (2008). *Speech and Voice Science*. Plural Pub, San Diego. (QY 28 BEH – 20 copies available).

These perception texts also have useful sections on sound and hearing:

Foley, H. J. & Matlin, M. W. (2010). *Sensation and perception (5th Edition)*. Boston: Allyn & Bacon. Chapter 9-12.

Mather, G. (2006). *Foundations of Perception*. Psychology Press. (BF 311 MAT) – or 2nd edition, 2009.

More advanced introductions to sound and hearing are found in:

Yost, W.E. (2007). *Fundamentals of Hearing: An Introduction (5th edition)*. San Diego, CA: Academic Press. (QY 28 YOS – 11 copies)

An interesting and readable book that covers the production of voice is:

Titze, I (1994). *Principles of voice production*. Englewoods Cliffs, NJ: Prentice Hall. (QY 28 TIT – 4 copies)

On speech production, co-articulation and Categorical Perception:

Lieberman, P. and Sheila E. B. (1988). *Speech physiology, speech perception, and acoustic phonetics*. Cambridge Studies in Speech Science and Communication. Cambridge: Cambridge University Press. (QY 28 Lie – 2 copies).

And, finally, interesting discussions of speech and language evolution:

Christiansen, M. H. and Kirby, S. (2003). *Language Evolution*. Oxford: Oxford University Press. Available online or hard copy (P 116 LAN – 4 copies).

Fitch, W. T. (2010). *The Evolution of Language*. Cambridge: Cambridge University Press. Available as eBook or hardcopy (P 116 FIT, 5 copies).

Language

An interesting introduction to language in general is:

Aitchison, J. (1998). *The Articulate Mammal* (4th edition). London: Routledge (P 106 Ait, 12 copies).

Two highly readable books about language are:

Ray Jackendoff (1993). *Patterns in the Mind*. New York: Harvester Wheatsheaf (P 37 Jac).

Steve Pinker (1994). *The Language Instinct*. London: Allen Lane/Penguin (P 106 Pin).

More standard textbook treatments of language can be found in:

Harley, T. (2008). *The psychology of language: From data to theory* (3rd Edition). Hove: Psychology Press. (P 37 Har, 15 copies). (The library also has copies of earlier editions, which remain useful). A 4th Edition has recently been published.

Whitney, P. (1998). *The psychology of language*. Boston: Houghton Mifflin. (P 37 Whi, 17 Copies)

Gleason, J. B., & Ratner, N. B. (1998). *Psycholinguistics* (2nd Edition). Forth Worth: Harcourt Brace. (P 38 Gle, 15 copies)

Carroll, D. W. (2004). *Psychology of language* (4th Ed.). Belmont, CA. Thomson/Wadsworth. (QZ 1070 Car, 6 copies) [There is a 5th edition, 2008]

Because language can also be studied using neuroscientific methods, the following very accessible, general introduction will be useful (introductory chapters and chapters 10 and 11):

Jamie Ward (2010). *The student's guide to cognitive neuroscience* (2nd Ed.). Hove: Psychology Press. (QZ 1000 WAR, 10 copies, and 7 of previous edition)

Thinking

The chapters on Thinking in Matlin's *Cognition* text (chapters 11 and 12) provide a good introduction to the material covered in the course. Other *Cognition/Cognitive Psychology* texts also contain relevant material, but the fit to the course material varies from text to text.

A more advanced treatment of thinking can be found in:

Manktelow, K. (2012). *Thinking and reasoning*. Hove: Psychology Press.

Baron, J. (2000). *Thinking and deciding* (third edition). Cambridge: Cambridge University Press (QZ 1020 Bar, 14 copies) [the latest edition is the 4th, 2006]

Garnham, A. and Oakhill, J. (1994). *Thinking and reasoning*. Oxford: Blackwell (QZ 1020 Gar, 21 copies).

A recent book by one of the founders of the Heuristics and Biases approach to judgement, which figures centrally in the Thinking part of the module, is highly recommended.

Kahneman, D. (2011). *Thinking, fast and slow*. London: Allen Lane. (also available as a Penguin paperback)

Three other books that are well worth looking at are:

Gladwell, M. (2005). *Blink: The power of thinking without thinking*. London: Allen Lane (BF 315 GLA, one copy) (also available as a Penguin paperback)

Gigerenzer, G. (2002). *Reckoning with risk*. London: Allen Lane. (HN 230 GIG, 3 copies).

Sutherland, N. S. (2007). *Irrationality* (2nd revised edition). London: Pinter & Martin. (QZ 1000 Sut – 2 copies)