

# PBS 1: Introduction to Psychology

## 2023/2024 Course Guide

The information contained in this guide is correct at the time of going to press (29/09/2023), but all matters covered are subject to change from time to time.

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### Useful information

This course aims to introduce a variety of theoretical and methodological approaches to the study of psychology. Students from other Triposes take the PBS 1 Introduction to Psychology course and it is taught in such a way to allow any student who has never studied Psychology (or Biology) to follow the material.

The Department runs a [site on Moodle](#) to support all students taking this paper.

If you are not already enrolled in this site, please contact the Teaching Office, [teaching@psychol.cam.ac.uk](mailto:teaching@psychol.cam.ac.uk)

Teaching is via lectures, which will be held in-person. A recording of each lecture will be made available afterwards; lectures **will not** be live-streamed.

Students with disabilities and/or particular learning needs should discuss assessments with the Course Leader to ensure they are able to fully engage with all assessment within the course.

### Brief description of the course

Across the course, a series of four broad topics will be explored: Individual Differences, Construction of Social Reality, Mind and Body and Decision Making. Within each topic, you will be introduced to specific research areas which contribute knowledge to those topics from different research perspectives. You will also see that psychology is a very broad science, full of debates, discrepancies and disagreements: at the end of each Topic, the contributing lecturers will hold a discussion of the Topic between themselves and welcome any contributions from you.

### **Educational Aims**

The course has been designed to deliver these educational aims:

- Provide students with knowledge about the breadth of psychology, its range of research questions, research methods and theoretical perspectives.
- Provide students with the opportunity to gain some specialised knowledge of specific research areas in psychology.
- Provide students with the opportunity to understand how different research *approaches* in psychology relate to each other.
- Provide students with the opportunity to understand how to integrate material across different areas of psychology
- Provide students with the opportunity to recognise valid forms of argument which allow psychological research to progress

### **Student learning outcomes**

Students should keep these educational aims in mind as they evaluate their progress in achieving the student learning outcomes. These are:

- Demonstrate conceptual knowledge of specific research areas in Psychology.
- Demonstrate knowledge of research approaches and techniques used in Psychology that are suitable for particular kinds of research question
- Demonstrate knowledge of the different perspectives within a Topic
- Demonstrate understanding of how different perspectives can be integrated
- Develop the ability to recognise what is and what is not an appropriate, objective and defensible conclusion about research outcomes
- Develop the ability to write cogent essays which demonstrate knowledge and understanding of the above.
- Students should learn to critically reflect how different features of human diversity are relevant to different psychological research questions.

### **Mode of Assessment**

The course is assessed by means of a single examination, testing the student learning outcomes above. The examination will consist of a written paper that will be three-hours in duration, closed-book and in-person. The exams will be sat via Inspira, an all-encompassing exam portal, and students are expected to bring their own single device (i.e. a laptop or

similar) on the day. Please note that Chromebooks are **not** compatible with the Inspira software.

More general information about Inspira can be found in the [Student Hub > Examinations section](#). If you need any support with purchasing a device for your exams, you should speak to your College in the first instance.

Students will answer essay questions that will be in two sections. Section A will ask questions drawn from specific lectures within a Topic and Section B will ask questions requiring candidates to integrate material across lectures in a Topic **and**, where relevant, across the entire course. Please note that there is no minimum or maximum total number of questions drawn from any of the four Topics on the Course. Students are therefore advised to prepare all Topics for the Examination.

### Supervision Arrangements

For many students, arrangements for supervisions will already have been made by their Director of Studies. Where this is not the case, please contact your College DoS or Tutorial Office to make arrangements.

Typically, students receive about eight supervisions in total, although each College provides its own guidelines about number and frequency of supervisions for its students. Each supervisor for the paper is normally prepared to provide all the supervisions necessary.

Suggested essay titles for supervision are included in this Guide and sometimes on lecture handouts.

### Course References and Reading Lists

Suggested reading can be found in the [online reading list](#). Some lecturers will give more references in their lectures. **Please note that you are not expected to read everything on the lists, and certainly not before the start of lectures.** Instead, you may wish to sample one or two references in advance, but you should follow the advice of your supervisor concerning how much reading is suitable for achieving the learning objectives.

Reading lists are live and may be updated across the year, and will be completed by the start of each term.

## Lecture Schedule

### Michaelmas Term

<i>Topic</i>	<i>Lecture</i>	<i>Who</i>	<i>When</i>	<i>Where</i>
<b>Introduction</b>	Introducing the course	L.H. de-Wit	6 <sup>th</sup> October 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
<b>Individual Differences</b>	Differential Psychology	L.H. de-Wit	9 <sup>th</sup> October 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Personality 1	J. Rentfrow	13 <sup>th</sup> October 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	Personality 2	J. Rentfrow	16 <sup>th</sup> October 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Personality 3	J. Rentfrow	20 <sup>th</sup> October 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	IQ1	J.D. Mollon	23 <sup>rd</sup> October 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	IQ2	J.D. Mollon	27 <sup>th</sup> October 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	IQ3	S. van der Linden	30 <sup>th</sup> October 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Lecturers' Discussion of the Individual Differences Topic	J. D. Mollon, J. Rentfrow, S. van der Linden, L.H. de-Wit	3 <sup>rd</sup> November 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
<b>Constructing Social Reality</b>	Perception of Faces 1	J. D. Mollon	6 <sup>th</sup> November 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Perception of Faces 2	J. D. Mollon	10 <sup>th</sup> November 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	Social Cognition 1	J. Schwarz	13 <sup>th</sup> November 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Social Cognition 2	J. Schwarz	17 <sup>th</sup> November 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	Self-Recognition 1	J. Garrison	20 <sup>th</sup> November 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>
	Self-Recognition 2	J. Garrison	24 <sup>th</sup> November 2pm	<a href="#">Biffen Lecture Hall (Genetics)</a>
	Lecturers' Discussion of the Constructing Social Reality Topic	J. D. Mollon, J. Schwarz J. Garrison	27 <sup>th</sup> November 11am	<a href="#">McCrum Theatre (Corpus Christi)</a>

## Lent Term

<i>Topic</i>	<i>Lecture</i>	<i>Who</i>	<i>When</i>	<i>Where</i>
<b>Mind and Body</b>	Emotion 1	S. Schnall	19 <sup>th</sup> January 2pm	TBC
	Emotion 2	S. Schnall	22 <sup>nd</sup> January 11am	TBC
	Emotion 3	S. Schnall	26 <sup>th</sup> January 2pm	TBC
	Mental Health 1	E. Weisblatt	29 <sup>th</sup> January 11 am	TBC
	Mental Health 2	E. Weisblatt	2 <sup>nd</sup> February 2pm	TBC
	Mental Health 3	E. Weisblatt	5 <sup>th</sup> February 11 am	TBC
	Mental Health 4	E. Weisblatt	9 <sup>th</sup> February 2pm	TBC
	Lecturers' Discussion of the Mind and Body Topic	S. Schnall, E. Weisblatt	12 <sup>th</sup> February, 11am	TBC
	Neuroscience of Decision Making 1	D. Talmi	16 <sup>th</sup> February 2pm	TBC
<b>Decision Making</b>	Neuroscience of Decision Making 2	D. Talmi	19 <sup>th</sup> February 11am	TBC
	Political Decision- Making 1	L.H. de-Wit	23 <sup>rd</sup> February 2pm	TBC
	Political Decision- Making 2	L.H. de-Wit	26 <sup>th</sup> February 11am	TBC
	Political Decision- Making 3	L.H. de-Wit	1 <sup>st</sup> March 2pm	TBC
	Political Decision- Making 4	L.H. de-Wit	4 <sup>th</sup> March 11am	TBC
	Political Decision- Making 5	L.H. de-Wit	8 <sup>th</sup> March 2pm	TBC
	Lecturers' Discussion of the Decision Making Topic	D. Talmi, L.H. de-Wit	11 <sup>th</sup> March 11am	TBC

## Lecturer contact details

Lee de-Wit [lh26@cam.ac.uk](mailto:lh26@cam.ac.uk), Jane Garrison [jrg60@cam.ac.uk](mailto:jrg60@cam.ac.uk),  
 John Mollon [jm123@cam.ac.uk](mailto:jm123@cam.ac.uk), Jason Rentfrow [pjr39@cam.ac.uk](mailto:pjr39@cam.ac.uk),  
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 Emma Weisblatt [ejw44@cam.ac.uk](mailto:ejw44@cam.ac.uk)

## Topic 1 - Individual Differences

After an introduction session, the course begins with the study of measurable differences between people. On the whole, studying individual differences has been regarded as a somewhat separate enterprise to experimental psychology, which attempts to control for individual differences in its pursuit of general laws of behaviour, mechanisms of the mind and (neuro)cognitive processes common to all. Instead, “differential psychology” has tended to focus on measurable differences between people, classically in traits such as personality and intelligence (or more accurately IQ).

The study of these areas has thrown up some fascinating findings and as you might imagine a wealth of data. One of the greatest challenges in the study of individual differences is how to make sense of these data<sup>1</sup>. Any number of explanations seem possible so how can (or should) we constrain our hypotheses in any scientific study of differences between people? Can we rely simply on rigorous methodology, and if so, what methods would be best? And if not, what are the alternative means by which we can decide between this and that interpretation? (Keep these questions in mind as you attend the lectures, and perhaps discuss them in supervisions. You will find that this approach to the material will allow you to develop your skills as a psychologist).

This Topic will provide an introduction to differential psychology, followed by lectures on IQ and Personality. Each of these two research areas adopt psychometric and behavioural genetics approaches to the Topic.

### ***Introducing the Course***

Dr Lee de-Wit

This session will introduce PBS 1 and allow the opportunity for questions about the course to be addressed.

### ***Individual Differences: Introduction***

Dr Lee de-Wit

#### *Outline*

This lecture will introduce the distinction between experimental psychology (which is concerned with observing similar or group average effects across a group of participants) and differential psychology (which is concerned with exploring individual variation around the group average). Evidence will be presented suggesting that whilst experimental methods can sometimes offer a straightforward means of causal relationships, individual differences also offer a rich source of data to test hypotheses about human psychology. Novel platforms for large scale, cross cultural, data collection (like computer games) also

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<sup>1</sup> You may already have noticed that “data” is often used in the singular in conversation, by the media etc, even though it is the plural of “datum”. Perhaps this is because people use “data” as a shorthand for “data set”. Either way, because you will be using the term so frequently in your study of Psychology, it’s worth deciding now whether you will adopt the plural “data” or the singular “data set” in your writing (and we can all agree on using “datum” for a single point in a data set!).

offer exciting potential for further integrating the measurement of individual differences into the scientific study of human behaviour.

### ***Individual Differences: IQ and Intelligence Testing***

Professor John Mollon and Professor Sander van der Linden

#### *Outline*

These lectures provide a short history of intelligence testing, the definition and measurement of IQ, the principles of test construction and the reliability and validity of IQ tests. We will also address the concept of the heritability of IQ and the procedures for estimating heritability, both from classical genetics (twin studies and adoption studies) and from recent molecular studies. We will also consider the role of the environment in explaining 'IQ gaps' and the difficulties that face any studies of group differences in intelligence, including the controversial study between race and IQ.

#### *Suggested supervision essay titles*

- How would you design a new IQ test, and why?
- Is it a mistake to seek cognitive processes that correspond to general intelligence ('g')?
- Why do scholars debate the scientific merit of studying group (e.g., race) differences in IQ scores? Explain the historical and modern context of this debate.

### ***Individual Differences: Personality***

Professor Jason Rentfrow

#### *Outline*

Individual differences in personality are perhaps one of the most fascinating yet frustrating topics studied in psychology. Fascinating because of its richness and complexity, frustrating because there is little consensus about what personality is exactly. These lectures review some of the dominant theoretical perspectives about personality and the ways in which it is typically assessed.

#### *Suggested supervision essay titles*

- What are the limitations of current conceptualizations of personality and how serious are they?
- What are three mechanisms responsible for behavioural manifestations of personality? Give examples to illustrate how the mechanisms work.

### ***Individual Differences - Discussion of the Topic***

Professor Jason Rentfrow and Professor John Mollon

## Topic 2 - Constructing Social Reality

This topic tackles what seems at face value to be the simplest of psychological tasks – perceiving and understanding others’ intentions, desires and actions. However, we only need to consider how often misunderstandings (minor and major) occur during social interaction, misjudgements in predicting what people will do and misconceptions of others’ actions to realise that our concept of the social world is a construction from many inputs and influences. Nonetheless, there are data obtained through techniques from experimental psychology and neuroscience that are consistent with the view that there are some very simple and direct neurocognitive mechanisms for social perception.

It may be that evolution has furnished the immature brain with specialised innate mechanisms dedicated to social perception which serve to scaffold more complex constructions of the social world. The question of innate mechanisms for social perception has been explored in studies of face recognition using rigorous methods of experimental psychology. Another approach is to consider the development of social perception in early infancy. Both approaches have produced data which we can use to constrain our theories and hypotheses about the nature and origin of the processes and mechanisms underpinning the construction of social reality.

Underpinning any social perception mechanisms is the ability to make a distinction between myself and the others I am interacting with. Without the distinction between self and other, it seems implausible that any approximate model of the social world would even be possible. This makes it all the more surprising that errors of self-other attribution are quite common. The final two lectures will describe research on the neural mechanisms that may underlie the ability to know what information pertains to “self” and what to “other”.

### ***Constructing Social Reality: Perception of faces***

Professor John Mollon

#### *Outline*

Crucial to our social interaction is our ability to identify and remember faces; and crucial to our understanding of the emotional states of others is our ability to recognise facial expressions. Have special brain mechanisms evolved for these purposes? Are some people innately better at face recognition than others? The topic of face perception will be used to illustrate several of the techniques that are used by experimental psychologists to study perception in general.

#### *Suggested supervision essay titles*

- Do we have dedicated brain mechanisms for the recognition of faces?
- What is the evidence that individual differences in the ability to recognise faces are heritable?
- What is known of the processes underlying the recognition of faces? Are they different from those underlying the recognition of other objects?



- Illustrate the different experimental techniques that can be used to study the perception of faces.

***Constructing Social Reality: Social Cognition***

Dr Julia Schwarz

***Outline***

Social Cognition refers to the psychological processes that underpin successful social interactions. In these two lectures, we will explore possible neurological mechanisms associated with these processes and consider the developmental trajectory of social cognition processes from infancy to adolescence. Throughout this discussion, we will try to identify the limitations of competing theoretical accounts by drawing upon neuroscientific and behavioural evidence. Finally, we will consider empirical attempts to establish the boundaries of our concepts of 'self' and 'other'.

***Suggested supervision essay titles***

- Discuss the evidence for/against the existence of mirror neurons in humans.
- What is the role of imitation in infancy and beyond?
- What have child development studies taught us about 'Theory of Mind'?

***Constructing Social Reality: Self-Recognition***

Dr Jane Garrison

***Outline***

These two lectures will explore the brain areas and cognitive mechanisms which underlie our ability to recognise ourselves. I will adopt both a cognitive neuroscientific perspective (studying the neural basis of cognition), and a cognitive neuropsychological perspective (investigating the cognitive effects of brain injury or neurological illness). In the first lecture I will explore self-recognition and self-referential processing generally, highlighting the role of medial brain areas and the involvement of the default mode network. In the second lecture I will explore specific examples of self-recognition including reality monitoring, agency and body ownership.

***Suggested supervision essay titles***

- What is understood about the mechanisms by which we distinguish between real and imagined information? Which areas of the brain are implicated in these processes?
- What techniques have been used to investigate the neurological basis of self-recognition and what are their limitations in terms of improving our understanding of this subject?

***Constructing Social Reality: Discussion of the Topic***

Dr Julia Schwarz, Professor John Mollon and Dr Jane Garrison,

## Topic 3 – Mind and Body

The question of the relationship between mind and body, or psychological states and bodily states is pervasive throughout psychology. You have already encountered this question in the context of emotions and reasoning. No psychologist today would dispute the fact that mental states, cognitive processes, thoughts and intuitions reside in the brain. But it is not easy to understand how a pattern of neural firing *is* the same thing as the content of a thought, such as “I believe it is 2022”. A good illustration of the conundrum (how can mental entities be physical and vice versa?) is the placebo effect, where the belief that “taking X will make me better” results in faster recovery from illness, despite X containing no nutritional or medicinal properties. In the lectures on Mind and Body, you will encounter questions that require reference to both psychological and physical states for explanation. The three lectures on Emotion will demonstrate the complexity of the relationship between mental and physical states and the need to appeal to cross-cultural, experimental and social psychological approaches to elucidate the nature of emotions. The study of abnormal psychology demonstrates that a clear relationship holds between mental experience and neural substrate: increasingly sophisticated techniques in neural measurement have begun to reveal significant differences in neurotransmitter systems, connectivity networks and neural region activation in disorders of mental health. But how far can neurocognitive theories and findings account for the nature of mental experiences of a psychiatric disorder? This is a question you could discuss in supervisions in the context of the four lectures on Mental Health.

### ***Mind and Body - Emotion***

Professor Simone Schnall

#### *Outline*

What is an emotion? Psychological researchers have pondered this question ever since William James asked it in the title of his article published in 1884. The current lectures will review contemporary research addressing a number of issues within the broad themes of affect, emotion and mood. In particular, we will examine multiple perspectives on emotions, including the universality of emotion, prototype approaches, and appraisal theories of emotions. We will also explore the relationship between cognition and emotion, and the extent to which cognitions are a prerequisite for emotional experiences, and on the flip side, the extent to which emotions influence cognitive processes. Overall, the lectures will illustrate that although emotional experiences sometimes seem to disturb everyday functioning, recent research has demonstrated that many emotions have adaptive consequences.

#### *Suggested supervision essay titles:*

- Is it true that “Preferences need no inferences”?
- Are emotions universal?
- Does affect help or hinder with regard to cognitive processing?

**Mind and Body – Mental Health**

Dr Emma Weisblatt

*Outline*

These lectures on mental health will introduce you to some of the major psychiatric diagnostic categories, the mental experiences of those given these diagnoses and the genetic, neural and psychological theories that try to explain the emergence of each disorder. We will also examine the most common major pharmacological and psychological therapies and evaluate their efficacy. We will also consider the origins of the categorical or “medical” model of mental disorders and its limitations and review recent proposals that abnormal psychological states should be regarded as varying traits, on a continuum across the population. This proposal has some interesting implications for research in this area.

*Suggested supervision essay titles*

- How should research of abnormal psychology approach the issue of symptom heterogeneity seen in psychological disorders?
- What are the strengths and weaknesses of the medical model of psychopathology?

**Mind and Body – Discussion of the Topic**

Professor Simone Schnall and Dr Emma Weisblatt

## Topic 4 - Decision-Making

Human cognition does not exist in a vacuum, but serves to help us make decisions in complex information environments. The study of how we make decisions offers an important window into human cognition, and enables us to ask fundamental questions like whether people have free will when making decisions, or whether human decision-making is rational. There is a wide spectrum of approaches to studying human decision making, from more controlled laboratory settings, to more complex social environments. This series of lectures will start by looking at the neuroscience of decision making using more controlled experiments, and then move to a much more applied setting, and explore how people make political decisions. The series will end by exploring whether policy makers and politicians can make use of insights into human decision making from psychology to “Nudge” us into making better decisions.

### ***Decision making - Neuroscience of Decision Making***

Dr Deborah Talmi

#### *Outline*

Understanding how we make decisions is a central goal of cognitive psychology and neuroscience, whether as simple as deciding to scratch an itch or as complex as choosing a second-hand car. In these lectures we will explore the neuroscience of simple decisions. We will examine the cognitive and neural mechanisms that underlie decision-making, and how they explain complex decisions. We precede this discussion by an exploration of the age-old question of free will and ask whether neuroscience can help us resolve gap between determinism and personal agency.

#### *Suggested supervision essay titles*

- What can neuroscience experiments tell us about free will?
- Does the brain represent the parameters of expected utility theory?

### ***Decision Making – Political decision making***

Dr Lee de-Wit

#### *Outline*

One of the most important decisions we make in life is political – who should we vote for? For decades psychology has been helping us to understand how we make political decisions, and has revealed (perhaps surprising) individual differences associated with the decision to identify with one political party or another. This research has highlighted potential emotional, moral and cognitive differences associated with different patterns of voting. Experimental research has also revealed a range of potential biases that complicate, or perhaps even undermine the democratic process, from the influence of the perceived competence of the face of different candidates, to the order of candidates on the ballot paper.

Political psychology is therefore not only of applied importance, but also offers a complex social context in which we can see lessons from psychology come to life. This application of psychology raises some profound questions about the way in which our decision making might be shaped by evolution, subject to cognitive biases, and shaped by the political and social contexts in which people make decisions. The lectures will also explore how a meaningful understanding of the political landscape (particularly the limitations of a single Left-Right axis) are critical to understanding the psychology of politics.

In recent years, there has also been an increasing recognition that policy makers can make the most of (perhaps exploit...) the biases and heuristics (and morals and emotions) in human reasoning to 'nudge' people into making 'desirable' decisions. This recognition has manifested in the UK in the development of the Behaviour Insight Team, and the fact that one will now find a 'behavioural scientist' in almost every department in Whitehall. This series will end by considering whether policy makers can use psychological theories and research methods to nudge our decisions 'for good'.

*Suggested supervision essay titles*

- What is the role of threat in motivating different political decisions?
- What are the implications of moral differences across the political spectrum?
- What can cognitive research tell us about the origins of political polarization?
- What can policy makers learn from psychological research to encourage more people to turn out and vote?

**Decision-Making – Discussion of the Topic**

Dr Deborah Talmi and Dr Lee de-Wit