This advanced module analyses the development and evolution of Mindreading or Theory of mind skills—the ability to understand, represent and respond adaptively to the mental states of oneself and others, which constitutes one of the key psychological adaptations of the human mind. This ability (or rather this set of abilities) is studied at the confluence of different disciplines in cognitive science: biology, philosophy of mind, ethology, developmental and comparative/evolutionary psychology, psychopathology, neuroscience... This module concentrates mainly on the contributions of developmental and comparative psychology, but situating them in their wider interdisciplinary context and exploring their implications for the understanding of atypical cognition, specially autism. The course will discuss the current state of research in this area, emphasizing both empirical and conceptual aspects combining the evolutionary and developmental approaches.

This is an advanced module and as such it follows a combination of Lectures and Discussion Seminar format in which material (mainly journal articles) must be read by the students before the seminar and discussed together under the lecturer’s guidance. In some sessions there will be introductory lectures that may be followed by group discussion of target papers. Other sessions will consist of discussions of papers introduced by students or the lecturer. The key to the success of this module format and your own learning is reading the papers before the sessions and actively participating in the discussions with questions, ideas, and queries suggested by your reading.

The reading list consists of Core Readings and Further Readings. Core Readings are of two types: Discussion Readings (the papers that will be presented and discussed in the seminars) and Background Readings (essential papers to understand the state of the art and the significance of the core readings material). Both Discussion and Background Core readings are expected to be known and used in the assessments by students. In addition, in some sessions I will indicate
Further Reading references: these provide supplementary materials for those who wish to know more about particular subjects, but they are not compulsory reading.

You will also find recommendations for books or reviews that provide more general sources of information about the history of the debates or overviews of the current state of the art in some of the key areas of the Module.

Session topics and their corresponding readings are provided in a separate document (Sessions Overview).

LEARNING OBJECTIVES

• To know and understand a varied interdisciplinary literature (both conceptual and empirical) on Theory of mind in humans and animals.

• To be able to critically read and assess claims about the significance of empirical findings in relation to methodology.

• To be able to critically assess and discuss theories and interpretations in relation to available evidence.

• To develop presentation and discussion skills.

ASSESSMENT

Continuous Assessment (25% of total mark) consists of an essay (maximum 2000 words excluding references) whose topic will be provided by the 3rd week of semester. Deadline for submission is to be agreed in class. In the 2-hour exam (75% of final mark) you will answer two questions out of four for which you will receive a single combined mark (i.e., not the average of two independent marks).

MARKING CRITERIA

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<th>Grade……</th>
<th>0-6.9</th>
<th>7</th>
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<tr>
<td><strong>Content</strong></td>
<td>No evidence that appropriate sources have been used OR copying* from other sources (even if source is cited).</td>
<td>Minimal reference to appropriate sources OR over-reliance on other work (e.g. close paraphrasing*, perhaps with lack of understanding of the material).</td>
<td>Major omissions. Use of a narrow range of sources. General reliance on secondary or out-of-date material.</td>
<td>Major theories/ideas presented, but use of a narrow range of sources, particularly secondary sources.</td>
<td>Covers all the major issues with use of a range of appropriate and up-to-date primary sources. Some independent use of sources.</td>
<td>Thorough and detailed grasp of the issues with widespread use of primary sources and widespread evidence of independent use of sources.</td>
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In some cases, the nature and extent of plagiarism will not merely attract a failing grade, but will also require referral to the Academic Disciplinary Process.

Avoiding Academic Misconduct (Plagiarism)
You should know very well by now the norms about plagiarism and the advice about how to avoid it provided by the university. Please make sure you pay special consideration to this when writing your assessments.

One of the golden rules to avoid plagiarism is to never use the strategy of copying and pasting from your reading sources, even if you are planning to rewrite the excerpts. Plagiarism will be detected by MMS specialized software even if the original source is paraphrased. You must always write your own account in your own words.

Do not trust web programs claiming to assess your essay for plagiarism: they simply do not work, and if you need to check before submitting, this may mean that you are not doing something right.

Links to University Policy and Guide to avoid academic misconduct:
http://www.st-andrews.ac.uk/students/rules/academicpractice/
Feedback

Verbal Feedback on presentations and discussions
One of the main aims of the seminar discussions is to allow and encourage students’ exploration and discussion of their own critical views, ideas, and doubts on the papers and topics discussed. I will provide verbal feedback (sometimes in the form of questions or expansions upon suggested ideas), by intervening in the discussion during the seminars. Please feel free to make use of the Office Hours or book a meeting if you wish to have further feedback or explanations on your presentation or class interventions, or simply on the material that you are reading.

Feedback on draft presentation.
Prior to your paper presentation you can submit a draft of your Powerpoint presentation or an outline on which you will receive written and/or verbal comments.

Office hours
You can use my office hours (Wednesdays 3-4:30pm) or arrange meetings to seek feedback on specific issues or problems emerged in class discussions or during your readings.

Written feedback on CA essays
After submission of your CA you will receive detailed individualized feedback on your piece of work, in the form of a standard feedback form plus extensive annotations and comments on your essay that you will be able to download from MMS. You will receive this feedback two weeks after submission or earlier. Please read it carefully and if in doubt or in need of further clarification, arrange a meeting with me.

Generic feedback on examination
After the exams have been marked, a Generic feedback document, explaining what was expected in the answers and strengths and weaknesses of the actual answers will be made available on Moodle. If in doubt or in need of further clarification, please contact me with your query and we can discuss it by email or by arranging a meeting.

Office Hours
Every Wednesday on teaching weeks I will be available from 3pm to 4:30pm in my office (Room 2.55) for discussion or queries about the module contents. If you prefer to meet at any other time, you can either send me an email (Jg5) with your query or arrange a meeting outside Office Hours.

STUDENT PRESENTATIONS
This module, as all SH modules, primarily relies upon supervised private study combined with class discussion of the module readings and some background lectures. The main aim of the seminars is to discuss and analyze the core readings set for the day. The discussion will be initiated with short presentations by members of the class.

• All students are required to make at least one presentation during the course. Although the presentation itself is not assessed, it is a requirement of the course. I can provide feedback on
the presentations if the PPTs are submitted to me after the presentation. You can also seek feedback on a draft before the actual presentation. Failure to contribute a presentation will lead to the issue of an Academic Alert and eventually failure in the module whatever the marks obtained in the assessments.

• You are expected to make your presentation using PowerPoint or a similar program (please remember to use a big enough font —minimum 20pt— to facilitate the reading from the back of the seminar room). All students (not only those in charge of the presentation) are expected to have read the core papers and come to the discussion with questions and remarks.

• Paper presentations must not be uncritical summaries of the contents; rather, they must actively direct the audience towards what you perceive as key contributions and potential points of contention of the paper. Avoid general, unspecific criticisms, like “more participants would have been desirable” or “more research is needed”.

• If several people are presenting on the same day, make sure that you coordinate your presentations. Do not simply divide the papers and then work independently. The presentation should address the core problem for discussion in a coherent way.

• Use overheads of graphics (results, tables, etc.) as an aid to your discussion and the class discussion.

• To help with the presentation I will provide preliminary feedback on a draft or outline of the presentation before each session.

The list of core papers may be complemented with further reading references. They provide useful background information that may help you preparing a better presentation. It is also useful that you consult other papers or book sections mentioned in the core readings (for example, empirical studies that you think are crucial but may be insufficiently explained in the reading). One of the things that will be more valued in the continuous assessment and in the marking of the exams is your ability to go beyond the core readings: both in terms of providing your own reflection upon their contents and providing connections with material from other papers.

The exact length of a presentation may vary depending upon the length and complexity of a paper, but you should expect to spend only around 5 minutes per paper. Never more than 10 mins. A maximum of four or five slides should be enough for most papers.
COURSE CONTENTS

SESSION 1 (27/1/17): Introductory Lecture: Mindreading — a comparative approach to its development, evolution, and alterations.

This session will consist of an Introductory Lecture in which the topic of the course will be situated in its historical and conceptual context.

The main reading sources for the module will be the papers indicated in each session, but the following are useful background sources for general information on Theory of Mind.


— Stanford Encyclopaedia of Philosophy (http://plato.stanford.edu/), especially the following entries: Mental Representation, Intentionality, Belief, Folk Psychology, Modularity.


This session discusses the main developmental models of Theory of Mind. We will pay special attention to recent discoveries in relation to the “litmus test” of theory of mind — the understanding of false belief — with an introductory discussion of the papers that started the “infant False-Belief” revolution, which is currently at the cutting edge of ToM research.

The Core Background Readings for this session are:


Have also a look at the following short commentaries on the above paper:

SESSION 3 (10/2/17). False belief understanding in infants?

In this session we will discuss in depth the challenge of current cutting edge research on possible early FB understanding in human infants. The papers listed below will be presented for discussion by students. Each represents a different method of non-verbal research.

Core Discussion Readings:


Further Reading:
A summary of the first wave of infant FB studies with a suggested explanation from the perspective of Baillargeon and colls. can be found in:

SESSION 4 (17/2/17). False-belief in infants (and adults): further studies and explanatory models.

In this session we discuss further infant FB studies, but this time with a focus on the theoretical controversies that surround them and how the infant FB controversies paradoxically can very closely relate to studies on Adult theory of mind.

Core Discussion Readings

The infant false-belief studies have had a profound influence upon the way in which we think about Theory of mind, not only in development, but also in adults. In this session we address some of the theoretical discussions and controversies generated.

Core Discussion Readings:


Further reading:


In this session we start looking at Theory of mind skills of nonhuman primates: understanding perception and visual attention in others.
Core Discussion Readings


Further reading:

SESSION 7 (10/3/17). Evolutionary precursors: Knowledge and false belief.
More complex forms of Mind-reading involve the understanding of so-called “epistemic states,” linked to how reality is represented rather than what is perceived. This section presents attempts at testing the understanding of knowledge and false-belief in non-human primates.

Core Discussion Readings


SESSION 8 (31/3/15). Controversies about animal and infant ToMs. (Lecture and Discussion).

This session will consist of a lecture organized around a series of papers addressing theoretical issues and debates about Mindreading in animals and humans. It will serve to review and consolidate the material discussed in the previous weeks.

Core Readings


Further Reading:


SESSION 9 (7/4/15): ToM in Non-Western cultures and deaf children

In this session we discuss, first, the issue of whether Theories of mind are universal or they can vary across cultures, and, second, ToM development in deaf children and its relevance for understanding the role of language and social learning in Mindreading.

Core Discussion Readings
Please make sure you download and read the Supplementary Material as well: Electronic Supplementary Material http://rspb.royalsocietypublishing.org/content/royprsb/suppl/2013/01/25/rspb.2012.2654.DC1/rspb20122654supp1.pdf


Further reading

In the last two sessions we discuss the case of autism as the foremost example of atypical development of theory of mind and how it can help solve the scientific riddles of ToM.

Core Discussion Readings


Further reading

Core Discussion Readings


Further reading


THERE WILL BE A REVISION SESSION SHORTLY BEFORE THE EXAM, THE EXACT DATE WILL BE AGREED ONCE THE EXAM DATE IS FIXED.