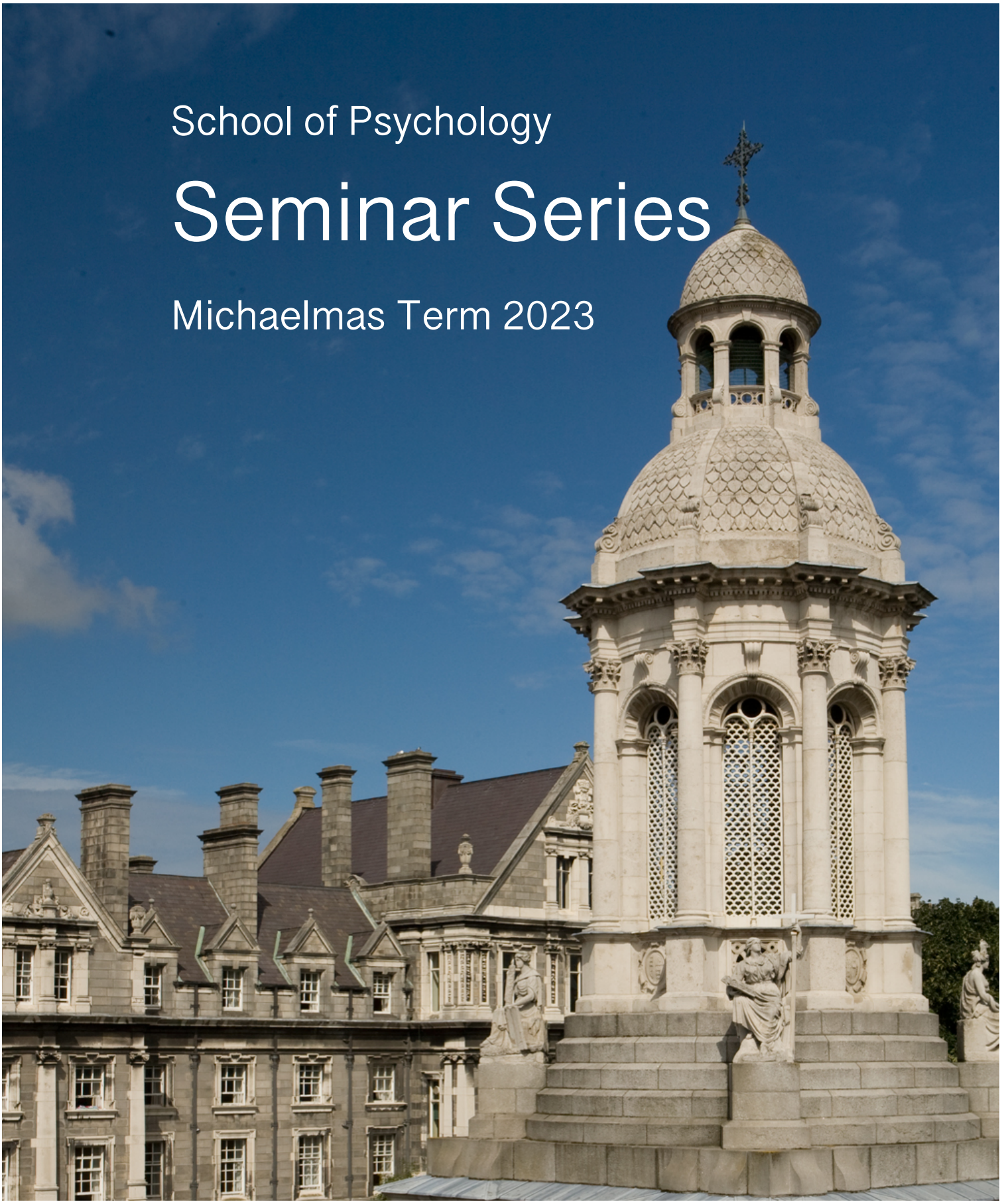
Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



School of Psychology

Seminar Series

Michaelmas Term 2023

LINE-UP AT A GLANCE

September 14th, 2023, 1pm	**Professor Isabelle Mareschal,** Queen Mary University of London ***Individual differences in emotion recognition in children and adults*** Hosted by: Dr Kristin Hadfield
September 28th, 2023, 1pm	**Dr Marie Ward**, Trinity College Dublin ***The Joys and Challenges of Being an Embedded Researcher in a Large Acute Hospital*** Hosted by: Dr Siobhan Corrigan
October 19th, 2023, 1pm	**Professor Nick Chater**, University of Warwick ***Do behavioural insights matter for public policy? A contractarian approach*** Hosted by: Dr Clare Kelly
November 9th, 2023, 1pm	**Professor Charlotte Stagg**, University of Oxford ***Multimodal studies of human skill learning*** Hosted by: Professor Sven Vanneste
November 23rd, 2023, 1pm	**Dr Anna Truzzi, Postdoc Prize Winner,** Trinity College Dublin ***The Development of Intrinsic Timescales in the Infant Brain*** Hosted by: Dr Claire Gillan

Talks will take place in-person in the Lloyd Building, LB08 and begin sharply at 1pm.

A light sandwich lunch with tea and coffee will be provided in the 3rd floor common room from 2pm, providing a chance to interact with the speaker, other staff, faculty, and students.

Thursday, September 14th at 1pm

Professor Isabelle Mareschal, Queen Mary University of London

Hosted by Dr Kristin Hadfield

Individual Differences in Emotion Recognition in Children and Adults

Accurately interpreting facial expressions underlies healthy non-verbal communication and atypical responsivity to facial expressions is often associated with clinical conditions such as autism or psychopathy. In a first set of experiments we measured emotion recognition in children, examining how early life adversity biases their perception of emotional expressions. We find that all children tested (Syrian refugee, Jordanian non-refugee) were biased to perceive negative emotions in ambiguous faces, and that children with high exposure to Trauma spent longer attending to angry faces. These results support the finding that adversity can alter affective processing. In a second set of experiments, we developed new tools to measure emotion recognition that bypass the need for language. These tools allow participants to quickly and efficiently create facial expressions associated with emotional states. We find substantial individual differences in emotion recognition which have important repercussions for the interpretation of standard emotion recognition tasks.

Biography

Isabelle Mareschal trained in visual physiology, receiving her PhD from McGill University in 1999. She went on to hold postdoctoral positions at New York University, University College London and the University of Sydney before taking a lecturer position at Queen Mary University of London in 2013. Although her main area of expertise is in visual perception and cognition, her research program over the last 10 years has broadened to include social perception - mainly focusing on how we processing facial expressions and gaze- in adults and children.

Thursday, September 28th at 1pm

Dr Marie Ward, Trinity College Dublin

Hosted by Dr Siobhan Corrigan

The Joys and Challenges of Being an Embedded Researcher in a Large Acute Hospital

The Patient Safety and Quality Improvement movements in healthcare have been slow to achieve momentum in improving outcomes despite over 20 years of effort. Understanding the complexity of healthcare and the challenges of implementing evidence based best practice have been cited as reasons for this. One growing area of interest is in the role that embedded researchers might play in quality and safety improvement. Embedded researchers have been defined as those who work inside host organisations as members of staff, while also maintaining an affiliation with an academic institution. In this talk Marie will share her insights on being an embedded Health Systems researcher with the Quality and Safety Improvement Directorate at St James's Hospital.

Biography

Marie E. Ward is an embedded Health Systems researcher at St James's Hospital Dublin where she is engaged in a programme of health systems research and improvement. Marie completed her BA in Psychology and PhD in Psychology Human Factors at the School of Psychology, TCD. Marie is an Adjunct Assistant Professor at TCD's multidisciplinary Centre for Innovative Human Systems which engages in Human Factors research and consultancy with all industries to improve human wellbeing and system performance. Marie is a lecturer on the Masters in Managing Risk and System Change (TCD) and the Masters in Human Factors in Patient Safety (RCSI); Chairperson of the Irish Human Factors and Ergonomics Society; a member of the Chartered Institute of Ergonomics and Human Factors (UK) special interest group on AI in healthcare and a council member of the International Ergonomics Association. Her research interests include how to enable patient and staff safety and wellbeing from a systems perspective and co-designing new systems from a socio-technical perspective.

THURSDAY, OCTOBER 19TH AT 1PM

PROFESSOR NICK CHATER, UNIVERSITY OF WARWICK

HOSTED BY DR CLARE KELLY

Do behavioural insights matter for public policy? A contractarian approach

Why do behavioural insights matter? Can policy makers draw on psychology to help make better policy? Traditionally, proponents of a psychologically-informed public policy, including advocates of "nudges" work within a broadly consequentialist framework. From this perspective, the ultimate aim of public policy is to maximise utility, happiness, welfare, the satisfaction of preferences, or similar; and the *behavioural* aspect of public policy aims to harness a knowledge of human psychology to make this maximisation more effective. In particular, behavioural insights may be crucial to help policy-makers 'save us from ourselves' by helping citizens avoid falling into non-rational choices, for example, through framing effects, failures of will-power, and so on.

But an alternative reading of the psychological literature is that human thoughts and actions are not biased from a rational standard, but are inconsistent through-and-through. If so, then utility and similar notions don't really make sense, either for individuals or as an objective of public policy. I argue that a different, *contractarian* viewpoint is required: that the determination of public policy is continuous with the formation of agreements we make with each other at all scales, from momentary social interactions, to linguistic and social conventions, to collective decisions by groups and organisations. Psychological factors do not over-ride, but can (among many other factors) inform, our collective decision-making process. The point of behavioural insights in public policy is primarily to inform and enrich public debate when deciding the rules by which we should like to live.

BIOGRAPHY

Nick Chater is Professor of Behavioural Science at Warwick Business School. He works on the cognitive and social foundations of rationality and language, and applications to business and government policy. His main current interest is understanding how incredibly rich and rationally-justifiable social products, including language, laws, markets and science, can sometimes emerge from the interactions of very partially rational individuals. He has served as Associate Editor for the journals Cognitive Science, Psychological Review, and Psychological Science. Nick is co-founder of the research consultancy Decision Technology and is a former member of the UK's Climate Change Committee. He is the author of *The Mind is Flat* (2018), and *The Language Game* (2022, with Morten Christiansen), and was awarded the Rumelhart Prize for lifetime achievement in cognitive science in 2023.

THURSDAY, NOVEMBER 9TH AT 1PM

PROFESSOR CHARLOTTE STAGG, UNIVERSITY OF OXFORD

HOSTED BY PROFESSOR SVEN VANNESTE

Multimodal studies of human skill learning

How can we learn to play the piano? How can top tennis players reliably get their backhand shots in time after time? How can we help people to recover their hand function after a stroke? My group sets out to answer these questions using a variety of neuroimaging and non-invasive brain stimulation approaches in humans and in rodent models. I will discuss how we use MR and MEG to decode the neural changes underpinning skill learning. I will also summarise how we combine neuroimaging with non-invasive brain stimulation to clarify interpretation and to move towards causality of these necessarily indirect signals. I will give examples of how we can drive network connectivity to optimise behaviour across species. Finally, I will describe how studies in stroke survivors can determine the clinical relevance of the neurophysiological signals we find.

BIOGRAPHY

Dr Charlotte (Charlie) Stagg is Professor of Human Neurophysiology at the University of Oxford, and Director of Studies for Preclinical Medicine at St Hilda's College. Charlie trained in Physiology and Medicine at Bristol University in the UK. She did her DPhil (PhD) research at the Oxford Centre for Functional MRI of the Brain (FMRIB), using advanced neuroimaging to study how the brain learns new motor skills. She was then awarded a Junior Research Fellowship at St Edmund Hall in Oxford, continuing to be based at FMRIB for her post-doctoral work, with research periods at University College London and the University of Miami, Florida.

Her inter-disciplinary group was founded in 2014 and uses multi-modal neuroimaging and brain stimulation approaches in rodents and humans to understand motor plasticity, both in the context of learning new motor skills and regaining function after a stroke. Her work has two overarching themes: to understand the mechanisms underpinning human motor learning, and to use that understanding to develop novel therapeutic approaches for acquired brain injuries. She holds a Senior Research Fellowship from the Wellcome Trust, and her group's work is also funded by awards from the MRC, BBSRC, EPSRC and the Wellcome Trust. Charlie lives in the Buckinghamshire countryside with her husband, their two children and the dogs.

https://www.ndcn.ox.ac.uk/research/physiological-neuroimaging-group

Twitter: @cjstagg

Thursday, November 23rd at 1pm

Dr Anna Truzzi, Postdoc Prize Winner, Trinity College Dublin

Hosted by Dr Claire Gillan

The Development of Intrinsic Timescales in the Infant Brain

Adult humans and other mammals are able to flexibly encode information on different timescales in order to extract meaningful patterns of information. Specifically, in the adult brain a hierarchy of intrinsic timescales, from short in sensory-motor areas to long in associative areas. These have been related to cognitive performance and clinical symptoms, but it remains unclear how they develop. Timescales could be adult-like already at birth, preceding a critical learning period, and shape learning by imposing an inductive bias. Alternatively, the hierarchy of timescales could develop in concert with the learning process and reflect the acquisition of temporal statistics in the environment. To investigate these alternatives, we compared intrinsic timescales in neonates and adults analysing data collected with fMRI. Intrinsic timescales already had a specific structure at birth, but they were overall longer than the ones measured in the adult brain. Moreover, a second study analysing EEG data in a longitudinal cohort of infant at 6, 9, and 18 months of age shows that timescales shorten during the first two years of life. These results suggest that timescales at birth act as an inductive bias that favours learning on longer timescales and then develop with experience or maturation. This might help human infants to create more regularised representations of the input would support the development of abstract representations.

Biography

Anna obtained her PhD in Cognitive Science from the University of Trento. For her PhD project she investigated parent-infant interactions combining psychophysiology in humans tested in Italy, and behavioural microanalysis in non-human primates tested at the RIKEN Center for Brain Science in Japan, where she spent one year of her Ph.D.. She is now a postdoc in the CusackLab in TCIN where she is applying neuroimaging and EEG to understand how the brain develops and learns from the environment early in life.

Beyond pure research work she is passionate about science communication, and she is a steady contributor to the Scientificast podcast, ranked as one of the top Italian podcasts in science.

HILARY TERM SNEAK PEAK

January 25th, 2024, 1pm	**Professor Tom Beckers**, KU Leuven Hosted by: Dr Olive Healy
February 8th, 2024, 1pm	**Dr Duncan Astle**, University College London Hosted by: Professor Rhodri Cusack
February 22nd, 2024, 1pm	**Professor Micah Allen,** Aarhus University Hosted by: Dr Paul Dockree
March 14th, 2024, 1pm	**Professor John Duncan**, University of Cambridge Hosted by: Dr Lorina Naci
April 11th, 2024, 1pm	**Professor Lucy Bowes**, University of Oxford Hosted by: Dr Lorraine Swords

Hilary term seminars will take place in-person in the Lloyd Building, LB04.