



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

THE FACULTY OF ARTS,  
HUMANITIES AND SOCIAL SCIENCES  
INAUGURAL LECTURE

# ANXIETY, COGNITION AND EMOTION IN THE HUMAN BRAIN

Professor **Sonia Bishop**  
Professor of Psychology (1968 Chair of Psychology)

# 2024

FEBRUARY 13



# Welcome

*It is the tradition in Trinity College Dublin that newly appointed Professors are invited to give an inaugural lecture.*

*The lecture provides an opportunity to showcase their achievements in research, innovation, engagement and teaching activities before members of the University community, invited stakeholders and the general public. An inaugural lecture is a significant event in an academic staff member's career.*

*The Faculty of Arts, Humanities and Social Sciences is proud to present the inaugural lecture of Professor Sonia Bishop.*





## About me



Sonia Bishop holds the 1968 Chair of Psychology at Trinity College Dublin. She obtained a 1st class undergraduate degree in Experimental Psychology from Oxford University and, following a brief detour to obtain a MPhil. in Criminology at Cambridge University, completed a PhD in Psychology at the Institute of Psychiatry, Kings College, University of London. Her post-doctoral training was undertaken at the MRC Cognition and Brain Sciences Unit in Cambridge with a year split between Princeton University and the University of Pennsylvania. She joined the faculty of the Department of Psychology and Helen Wills Neuroscience Institute at UC Berkeley in 2008 as an assistant professor, gaining tenure and being promoted to associate professor in 2016.

In 2022, she joined Trinity College Dublin as the 1968 Chair of Psychology, member of the Trinity College Institute of Neuroscience, and Professorial fellow. She works at the intersection of cognitive neuroscience, clinical psychology and computational science. She uses a combination of computational modelling, functional neuroimaging and experimental methods to investigate altered cognitive and brain function in anxiety and depression. At Trinity College Dublin, she currently teaches about Emotion and the Brain. Her hobbies include Improvisational Comedy; in the US, she taught freshman seminars on Exploring Psychology through Improvisational Comedy and Drama.

Professor

# Sonia Bishop

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## Abstract

In our daily lives, we use a range of cognitive processes from attention to decision-making. These processes are influenced by the emotional salience of encountered and anticipated objects and events and by our own individual responses to these external stimuli. This lecture addresses how we can use experimental cognitive studies, computational modelling and human neuroimaging to understand the influences of trait emotion and stimulus emotional value on processes ranging from decision-making to scene perception. The first part of the lecture will focus on decision-making under uncertainty and how this is influenced by individual differences in anxiety and also depression. Here, work will be presented that examines how individuals handle decision-making when the world is highly volatile or information needed to estimate outcome probabilities is missing.

It will be argued that difficulty in making decisions under volatility and missing information is elevated in both anxiety and depression and influences decisions about both potentially dangerous and rewarding situations. The second part of the lecture examines how the human brain represents complex natural emotional scenes and extracts the information needed to guide behaviour. Here, we find that occipital cortical regions in the back of the brain integrate semantic and emotional scene features, extracting the information needed to respond to a wide range of emotional stimuli encountered in the natural world.

Anxiety, cognition  
and emotion in the  
human brain



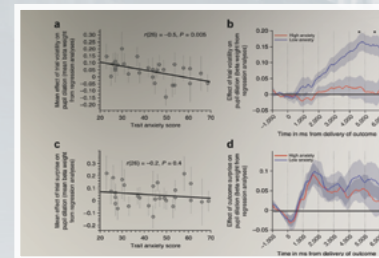




# School of Psychology

Psychology at TCD is ranked first in Ireland, the Top 40 in Europe and in the Top 100 in the world. The School of Psychology is committed to the provision of high quality education and training at all levels and has a strong international reputation for excellence in research. It aims to offer a knowledge base and a set of skills that not only equip students for the many careers that exist in psychology but also prepare students intellectually for other careers.

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