

Posts Specification

Post Title:	2 x PhD Studentships in Human Perception and Development
Post Status:	Fixed term contract
Research Group / Department / School:	Multisensory Cognition Lab, School of Psychology and Institute of Neuroscience, Trinity College Dublin, Ireland
Location:	Trinity College Institute of Neuroscience
Reports to:	Professor Fiona Newell
Terms & Conditions:	Fully funded PhD studentships with an annual stipend of €18,500 over 4 years, plus fees*
Hours of Work:	Full time
Closing Date:	12 Noon (GMT), July 19 th , 2020

* Applicants must have been resident there in an EU member state (including Ireland) or UK for 3 out of the last 5 years to be eligible for the student fees.

Summary of research project:

The research group headed by Professor Fiona Newell at Trinity College Institute of Neuroscience (TCIN) is about to embark on a project investigating multisensory object recognition. The aim of the proposed programme of research is to elucidate the behavioural and brain processes underpinning combined visual, auditory and haptic object information in children and in adults, and assess the extent to which object categories adapt to changes in task conditions. The research depends on a multidisciplinary approach involving experimental psychology, cognitive neuroscience, statistical modelling, psychophysics and computer science, particularly Virtual Reality.

The candidates will work within the Multisensory Cognition lab at TCIN, headed by Professor Fiona Newell. The Multisensory Cognition lab includes dedicated research space and state-of-

the-art facilities for behavioural testing. TCIN also houses a research-dedicated MRI scanner, accessible to all principal investigators and their groups. Each candidate will be required to work collaboratively with other members of the research team on this project. Specifically they will be required to design and conduct novel experiments on multisensory object perception, to analyse the results and disseminate the findings (as journal articles, and conference presentations). The project also includes an outreach component to engage the public in science, and the candidate is expected to be involved in these efforts. For each candidate, their research will be conducted under the supervision of Professor Fiona Newell and will be presented for qualification of PhD within the timeframe permitted by Trinity College Dublin.

1: PhD studentship in Perceptual Development

The main focus of this studentship is to investigate the formation of object categories in children, using vision, audition and haptics. All testing will be lab-based or, when appropriate, online. This studentship is ideal for candidates interested in Developmental Psychology or cognate discipline.

2: PhD studentship in Multisensory Perception

The main focus of this studentship is to investigate the representation of multisensory object categories in memory. All testing will be lab-based or, when appropriate, online. The research will involve behavioural testing, as well as eye tracking and the use of VR technology (HTC Vive and/or Oculus) in collaboration with industrial partners.

Each position is funded for **4 years**, starting on **30th August, 2021** or as soon as possible thereafter. The students will join a research team of PhD students, postdoctoral fellows, and research assistants and have the opportunity to collaborate with colleagues within the Institute of Neuroscience and across other disciplines in Trinity College, as well as industrial partners. They will participate in regular lab and institutional meetings, learn about diverse methodologies in perceptual science and have the opportunity to attend major international conferences in the field.

Standard Duties and Responsibilities of the Post

The PhD students will carry out an original body of research as part of the requirements for the PhD in Psychology at Trinity College. They will participate fully in lab life, attending regular meetings and collaborating with other lab members. Both positions are full time and, under normal circumstances, attendance at the lab during normal working hours is required to conduct the research. They are expected to be a self-starter, eager to learn and enthusiastic about their area of study.

Funding Information

The studentship is supported by funding from Science Foundation Ireland, Frontiers for the Future Award programme awarded to Professor Fiona Newell (Principal Investigator).

Person Specification

Each candidate must have a strong background in Psychology, Neuroscience or a cognate discipline and have graduated with a degree in any of those disciplines. They should be knowledgeable and skilled in experimental psychology, ideally testing of adult and/or child participants. The candidate should be able to provide demonstrable evidence of their enthusiasm for, and understanding of, topics relating to Development, Cognition and/or Perception. The candidate must be highly motivated with excellent organisational skills. As a member of a highly interactive, collaborative team they must be enthusiastic and willing to contribute to the overall aims of the project. They should also be able to engage with the public in a professional manner.

Qualifications

An undergraduate degree in Psychology, Neuroscience or cognate discipline [Essential]. A Master's degree in Experimental or Developmental Psychology/ Neuroscience is desirable but not essential.

Knowledge & Experience (Essential & Desirable)

Knowledgeable and skilled in experimental psychology [Desirable]

Demonstrable interest in Developmental Psychology, Perception and Perceptual Development [Essential]

Ability to conduct independent research [Essential]

Experience in written and oral presentation of research [Essential]

Experience in engaging with the general public on topics [Desirable]

Candidate for the role of Developmental Perception should be able to demonstrate an ability to work with children [Essential]

Candidate for the role of Multisensory Perception should be able to demonstrate an interest in working with VR technology [Essential]

Skills & Competencies

Demonstrable ability to independently design experiments and collect data [Essential]

Basic data analysis (quantitative) skills [Essential]

Statistical analysis using R, Python etc [Desirable]

Programming experiments in e.g. Matlab, Python, PsychoPy etc. [Desirable]

Ability to present research findings to an informed and/or lay audience [Desirable]

Application Procedure

Applicants should submit the following information by email to Fiona Newell, email Fiona.newell@tcd.ie:

- a cover letter specifying for which role they are applying
- a full Curriculum Vitae
- the names and contact details (email addresses) of two academic referees

Informal enquiries can also be made to the same email address.

Applications will be reviewed on an ongoing basis up until the application deadline.

Further Information for Applicants

URL link to Lab information	https://multisensorytcd.com/
URL Link to Human Resources	https://www.tcd.ie/hr/

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 101st in the world (QS World University Rankings 2021). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 40th in the world for international outlook and is the highest ranked university in Ireland (Times Higher Education Rankings 2021) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the sixth year in a row and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of

every book published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 101st in the world (QS World University Rankings 2021). Trinity ranks in the top 50 in the world on 4 subjects and in the top 100 in 17 subjects (QS World University Rankings by Subject 2021). Full details are available at: www.tcd.ie/research/about/rankings.

The School of Psychology in Trinity College Dublin was recently ranked in the top 100 Schools of Psychology globally by the Times Higher Education Subject rankings 2021 and in the top 40 within Europe.

Application Procedure

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Applicants should submit a cover letter specifying for which position they are applying (1. Perceptual Development or 2. Multisensory Perception) , a full Curriculum Vitae including the names and contact details (email addresses) of two academic referees. All information should be sent as a single file by email to:-

Professor Fiona Newell; fiona.newell@tcd.ie

