

PhD Opportunities in the School of Psychology and Clinical Language Sciences



This document contains a list of some of our currently available PhD opportunities within the [School of Psychology and Clinical Language Sciences](#) (PCLS). It is updated with new PhD opportunities as they become available, so please check back regularly.

You can also propose your own project that aligns with our research. Find out more about [How to apply for a PhD](#), and please see the [PCLS Staff webpage](#) for a full list of academic staff. For general enquiries about PhD applications in the School of Psychology and Clinical Language Sciences, please email pclsphdadmissions@reading.ac.uk.

Research in Psychology and Clinical Language Sciences

Research in PCLS is focused on three broad themes. Many of our staff conduct cross-disciplinary research that spans these three themes.

Our research in **psychopathology and affective neuroscience** examines the development of emotion regulation and psychopathology, treatment of psychopathology, and how the brain and body interact in terms of social cognition and emotional behaviour using tools from cognitive neuroscience. With a focus on translational research, we seek to advance understanding of the causes and treatment of depression, anxiety, eating disorders and autism in children and younger adults, as well as neurodegeneration and wellbeing in older adults.

Our research in **cognitive science** focuses on language, learning, memory and forgetting, perception, development, and aging. We also work on motivation, curiosity and behaviour change, with implications for education and policymaking. Language is a particular strength and we have significant expertise in bilingualism and multilingualism, language impairment, typical and atypical development, and psycholinguistics. In addition, we have expertise in 3D vision, eye movements and face perception, and we use virtual reality technology to expand our understanding of how vision and touch are brought together in perception. Researchers examine how a variety of interventions such as cognitive training, brain stimulation, and even how chewing gum help us to remember and to forget.

Our **personalised nutrition and applied research** investigates the interplay between our diet, cognition and mental health, and understanding how social, cognitive, sensory and economic factors interact to influence food choice across the lifespan. Other research in health psychology investigates the development of technological aids for supporting people with dementia and Alzheimer's disease, the use of plant-derived compounds for health, and contributions to building design in relation to distracting background noise and the Internet of Things.

The following pages provide a list of supervisors willing to supervise PhD projects within these three broad themes.

Research Themes and Supervisors

PhD projects in Psychopathology and Affective Neuroscience

(Neurodiversity; psychopathology; neurodegenerative diseases; emotion regulation and emotional disorders; affective neuroscience; reward processing)

Dr Samrah Ahmed

Dr Cathy Manning

Dr Umit Aydin

Professor Ciara McCabe

Professor Bhisimadev Chakrabarti

Dr Teresa Tavassoli

Professor Anastasia Christakou

Professor Carien Van Reekum

Professor Aileen Ho

Dr Shannon Wake

PhD Projects in Cognitive Science (i)

(Perception and action; memory and cognitive control; development and aging; behavioural change)

Professor Philip Beaman

Dr Fang Liu

Dr David Field

Dr Eugene McSorley

Professor Andrew Glennerster

Dr Peter Scarfe

Dr Katie Gray

Dr Julia Vogt

Dr Juliane Honisch

PhD Projects in Cognitive Science (ii)

(Clinical language science and language therapy; language development; psycholinguistics; neuroscience of language; multilingualism)

Dr Arpita Bose

Dr Christos Pliatsikas

Dr Ian Cunnings

Dr Rachel Pye

Dr Fatemeh Mollaei

Professor Vesna Stojanovik

PhD Projects in Personalised Nutrition and Applied Research

(Health psychology; mental health; eating disorders and personalised nutrition; chronic illness and injury)

Dr Katie Barfoot

Dr Daiel Lamport

Dr Katherine Finlay

Dr Paul Jenkins

Professor Kate Harvey

Professor Claire Williams

PhD projects in Psychopathology and Affective Neuroscience

Neurodiversity; psychopathology; neurodegenerative diseases; emotion regulation and emotional disorders; affective neuroscience; reward processing

Supervisor: [Dr Samrah Ahmed](#)
Email: samrah.ahmed@reading.ac.uk
Lab Website: [Brain Health and Dementia Lab](#)

My research focuses on better characterisation of dementia syndromes, including Alzheimer's disease and frontotemporal dementia. With detailed phenotyping of these conditions we can then identify disease subtypes, inform the development of sensitive diagnostic tools, and identify robust markers to track progression and outcomes for clinical trials. I am also interested in how cognition changes as we age and the risk factors that affect our brain health.

I am happy to consider projects in the field of clinical phenotyping of dementia; brain health; neuropsychological assessment; clinical diagnostics.

Supervisor: Dr Umit Aydin
Email: u.aydin@reading.ac.uk

I am interested in supervising PhD students examining neurodiversity in middle to late adulthood through neuroimaging.

Research on neurodiversity, which includes attention deficit hyperactivity disorder (ADHD) and autism, has primarily focused on children. However, these conditions are still prevalent in adults, with around 3% having ADHD and 1% having autism. This project aims to address this gap by studying neurodiversity in middle to late adulthood. Our group specializes in neuroimaging techniques, such as Electroencephalography (EEG), functional and structural Magnetic Resonance Imaging (MRI), and multimodal data analysis. I welcome applicants who are interested in exploring the cognitive and neuroimaging aspects of ADHD and/or autism in middle to late adulthood. The project can be tailored according to the applicant's interests and strengths.

Supervisor: [Professor Bhisudev Chakrabarti](#)
Email: b.chakrabarti@reading.ac.uk
Lab Website: [Bhismalab](#)

I am interested in supervising PhD projects on the follow topics.

1) How to assess autism and neurodevelopmental disorders in low-resource settings?

Most research on neurodevelopmental conditions such as autism takes place in high-resource settings in western Europe and the USA. Yet, the majority of children with neurodevelopmental conditions reside in low and middle income countries. To tackle

this gap in specialist resources, we have been developing apps to measure diverse aspects of neurodevelopment, which can be used by non-specialists,

We are looking for interested PhD students to build on this effort by helping validate these apps in and outside the laboratory environment. You would be working alongside a wider international interdisciplinary team. The ideal student/s will be familiar and comfortable with the use of quantitative methods. Prior experience in testing children would be an advantage.

2) Studying empathy, emotion regulation, and social motivation in real world social interactions

Our group has been studying empathy and related processes in autistic and nonautistic adults. Nearly all of these studies take place in the lab, under tightly controlled circumstances. We are looking to develop a repertoire of experiments to measure these constructs in real world social interactions. The ideal student will have a background in Psychology, and be comfortable in the use of empirical and quantitative methods. Prior experience in working with adult humans will be an advantage.

Supervisor: [Professor Anastasia Christakou](#)

Email: a.christakou@reading.ac.uk

Lab Website: <https://anastasia.christakou.org>

Research in our lab investigates the neurobiological and psychological mechanisms of adaptive behaviour and learning, including how they develop, and what role they play in psychopathology. We use functional and structural neuroimaging, neurochemical imaging, peripheral and central psychophysiology, mathematical modelling, behavioural testing, and personality and psychodiagnostic instruments. With collaborators from multiple disciplines, we work at the interface of the following themes: - Multi-level studies of the regulation of positive and negative emotion - Network function in expert and disordered decision-making - The neurobiology of belief and agent-level representation - Typical and atypical adolescent brain development - The links between brain, hormone, and cardiovascular function across the lifespan.

Supervisor: [Professor Aileen Ho](#)

Email: a.k.ho@reading.ac.uk

Lab Website: [Neuro Projects](#)

The concept of human well-being is a fundamental aspect of our existence and is often particularly vulnerable upon diagnosis and/or progression of long-term neurological conditions for which there is no cure, such as Parkinson's, Alzheimer's, Multiple Sclerosis and Huntington's disease. As these conditions involve, insidious cognitive, motor and psychopathological deterioration tends to occur, and the adjustment and coping process can be additionally complex and challenging, affecting mental health and well-being. Projects in this specific area of interface between neuropsychology, clinical psychology and health psychology could be focused on 1) patients and also 2) family carers.

Possible areas of investigation include: Adjustment and coping processes of patients at various points of the disease trajectory using qualitative and quantitative measures, mindfulness and various cognitive behavioural interventions to ameliorate maladaptive adjustment and coping, other approaches such as positive psychology, social interaction, ecopsychology etc to build resilience to promote mental well-being and flourishing in family carers as well as patients. Experimental cognitive training and rehabilitation to improve patient functioning, Psychological, cognitive, motor or a combination of these in real-world interventions on symptoms, disease progression, health status or health-related quality of life and subjective well-being. The use of technology and development of apps to facilitate all of the above is also of interest, as is the use of brain imaging to examine the neurophysiological effect of interventions. Potential candidates are invited to discuss their interest in relation to this topic in order to tailor projects to suit individual backgrounds, interests and skills.

Supervisor: [Dr Cathy Manning](#)

Email: c.a.manning@reading.ac.uk

Lab Website: <https://catherinemanning.weebly.com/>

Atypical responses to sensory information have been reported in almost all developmental conditions, including autism and dyslexia. These sensory processing differences can have a huge impact on people's everyday lives. For example, autistic children may struggle to learn effectively if they are very sensitive to the fluorescent lights or the background noises in a typical classroom environment. My research has aimed to uncover the reasons for atypical responses to sensory information in both autism and dyslexia, considering different processing stages from early sensory processing to later decision-making processes. I primarily use a combination of psychophysics, EEG and computational modelling. Cross-syndrome comparisons are particularly informative for understanding how different developmental conditions overlap or diverge. I am interested in supervising projects related to sensory, attentional, perceptual and/or decisional processes in autism, dyslexia, and/or other neurodevelopmental conditions. I am also interested in supervising projects relating to how these processes develop in typically developing children. I also have a research programme looking at how to make public spaces more inclusive for autistic people, and would be keen to supervise projects in this area.

To give you an idea, example projects include: a) investigating links between sensory processing assessed in the laboratory and everyday sensory processing, b) investigating links between decision-making parameters and symptom dimensions relevant to neurodevelopmental conditions (e.g., reading abilities, attention), c) making public spaces more accessible and inclusive for autistic people and others with sensory processing differences d) investigating links between motion perception and movements in typically and atypically developing children, and e) investigating EEG markers of atypical sensory processing and/or decision-making in developmental conditions.

Supervisor: [Professor Ciara McCabe](#)

Email: c.mccabe@reading.ac.uk

Lab Website: [NRG Lab](#)

In our research group we are interested in reward processing and disorders like depression. We have been using fMRI to examine the brains response to reward and also lab task measures of reward function to measure depression symptoms. We sometimes also use computational modelling to help understand our data better if you are interested in this approach. We also now examine real-life reward processing using ESM digital smart-phone apps. We want to know how adolescents for example engage in their daily lives with rewards that are social or even physical like leisure activities as we know these factors can help prevent and improve low mood. We are also interested in treatments and have many studies on the effects of drugs like SSRIs (antidepressants) on reward function but we are interested also to know how other psychological or behavioural interventions affect reward and depression symptoms.

We can use a variety of techniques to test our research questions. A PhD in our lab can provide a firm grounding in cognitive tasks and fMRI data collection, real-life data collection with apps, psychopharmacology, and the effects of behavioural interventions. The PhD can be by publication as most others have done in the lab, this leads to both a thesis but a number of papers too which is a real advantage for the next step in your career. You would join a team of MSc, PhDs and postdocs all working on reward related projects but you would also have scope to develop your own PhD ideas. We have exceptional imaging facilities, computing suites and wet labs to undertake this work.

Supervisor: [Dr Teresa Tavassoli](#)

Email: t.tavassoli@reading.ac.uk

Lab Website: [Sensational Lab](#)

We all perceive the sensory world around us differently. My research is dedicated to deepening our understanding of sensory reactivity in autism. Sensory reactivity symptoms include hyperreactivity (stronger response to sensory stimuli such as sounds), hyporeactivity (slower or less of a response) and sensory seeking (an unusual sensory interests). Potential PhD projects could be investigating underlying mechanisms of sensory reactivity and the impact on mental health.

Supervisor: [Professor Carien Van Reekum](#)

Email: c.vanreekum@reading.ac.uk

Lab Website: [Brain, Emotion and Cognition Laboratory](#)

Emotion regulation in body and brain – and collaborations.

Individuals vary greatly in how well they can regulate their emotions, and difficulties in emotion regulation have been linked to resilience and emotional disorders. In the Brain, Emotion, and Cognition lab (BEClab), emotion regulation is broadly defined, and encompasses the study of reappraisal, emotion flexibility, threat extinction and temporal

aspects of emotional responding, including emotional recovery. Questions that can be asked include: What is the neural overlap between threat extinction and a more cognitively demanding process (such as reappraisal) of regulating threat? What are the different neural and psychological processes that allow some individuals to respond adaptively to emotional events while others fail to do so? What (emotional) disposition characterises individuals who have trouble with threat extinction or emotion regulation? Can we identify individuals who are more resilient based on temporal aspects of emotional responding or flexibility in emotion regulation? What corticolimbic interaction supports emotion flexibility? Can we overcome any issues with emotion regulation with training or with biofeedback (e.g. HRV)? Are bodily awareness and emotion regulatory ability coupled? Does cognitive capacity play a role in emotion flexibility? Does emotion regulatory ability decline with advancing age – what is the “tipping point”? A PhD project focusing on an aspect of "emotion regulation" as defined above can use a mixture of psychophysiology (i.e. heart rate, skin conductance, muscle tension) and/or brain imaging (fMRI or EEG). The specific topic and population studied will be further defined based on mutual interest, expertise and the Ph.D. candidate’s research experience to date. Please note, given the biological psychology/neuroscience focus of research in the BEClab, prior knowledge of, or experience with, psychophysiological or neuroscientific methods, and a bit of programming experience will definitely be beneficial.

I am also very open to collaborate on any research project where my expertise in emotion can be helpful. By way of example, recent collaborations through co-supervision of PGT and PGR students involve colleagues with expertise in anxiety, pain, empathy, vision, self-regulation, cognitive neurobiology, neurodegeneration, and nutrition. Expanding these collaborations and fostering new ones is exciting for all involved, so let me know if you’re interested.

Supervisor: Dr Shannon Wake

Email: shannon.wake@reading.ac.uk

I am interested in supervising PhD projects related to mental health, with particular interest in the development, maintenance or return of anxiety disorders. A main thread of my work has examined the role of individual differences in social anxiety and intolerance of uncertainty on safety learning and avoidance behaviour. However, I have also conducted work that has examined the role of individual differences in anxious and obsessive-compulsive traits on checking behaviours.

A PhD thesis related to individual differences in anxiety can take several approaches including recruiting both “non-clinical” and clinical samples, employing subjective, behavioural, and psychophysiological measures, as well as examining individual differences in anxiety across development.

A specific potential PhD topic is “The role of individual differences in social anxiety on avoidance behaviours and physiological responses “.

Social anxiety disorder (SAD) is characterised by the persistent fear and avoidance of social interaction or performance situations in which there is potential for scrutiny or negative evaluation from others. SAD typically develops in late childhood or adolescence and can lead to significant disability in education, employment, and relationships.

Excessive avoidance behaviour is a defining characteristic of anxiety disorders, including SAD, and cognitive models of SAD propose that individuals with social anxiety engage in various “in situation or subtly safety behaviours”, such as avoiding eye contact or talking. Cognitive Behavioural Therapy (CBT) is used for the treatment of SAD and includes exposure therapy as a main component. Although exposure therapy has been found to be effective in the treatment of social anxiety, it often does not lead to full remission and relapse of symptoms after treatment is common.

Our lab has conducted laboratory-based research on safety learning (i.e., learning that something that was once threatening is now safe within experimental tasks) to further understanding of why fear and avoidance may be maintained or return after exposure for people with social anxiety. This project will continue this line of work and aims to assess the role of individual differences in social anxiety on avoidance behaviours and physiological responses during safety-learning in a lab-based task.

PhD Projects in Cognitive Science (i)

Perception and action; memory and cognitive control; development and aging; behavioural change

Supervisor: [Professor Philip Beaman](#)

Email: c.p.beaman@reading.ac.uk

I am interested in supervising projects on auditory cognition. Thinking in sound, thinking about sound. A wide range of possibilities from tunes that become stuck in the head ("earworms") - the how, the when, and the why - through auditory memory - echoic memory, musical memory and musical learning, and earwitness testimony - and auditory attention and distraction; how do we focus on one auditory source amongst many competing inputs, what causes distraction and what are the consequences (human error, ergonomics, human factors etc), and how might we mitigate them.

Supervisor: [Dr David Field](#)

Email: d.t.field@reading.ac.uk

An appropriate balance between excitatory and inhibitory neural processes in the brain underlies healthy psychological function. Two examples of conditions in which there is an imbalance are autism and ADHD. In these two cases there is a relative lack of GABA, which is the main neurotransmitter underlying the inhibitory side of the balance. There is also some evidence of a similar imbalance in anxiety disorders. Motivated by these observations, this research project explores ways of increasing the inhibitory (GABAergic) function in the brain. One method of doing this that I have promising pilot data for is dietary supplementation with the precursors of the GABA neurotransmitter – mainly B vitamins. Another potential method is meditation. Levels of GABA in the brain can be approximated using carefully designed behavioural tests, or measured more directly using MRI.

Supervisor: [Professor Andrew Glennerster](#)

Email: a.glennerster@reading.ac.uk

Currently, we have very little idea about how the human brain represents 3D space. This is a particularly difficult problem when you consider how much the retinal image changes as people move their head and eyes. In our laboratory, we compare models of spatial representation that could explain how people behave when they carry out tasks such as pointing at objects that are currently out of sight or finding a shortcut to objects in a maze. We do this in immersive virtual reality, where participants wear a head mounted display, so that we can design and control the environment and, often, change the layout of the scene as participants walk through it.

We have close links with the Robotics Group in the University of Oxford. Some of the hypotheses we are currently exploring are inspired by the recent success of reinforcement learning on navigation tasks. There is flexibility to make a PhD project

more computational, and more closely linked with the Oxford group, or more directly focused on human spatial behaviour.

Supervisor: [Dr Katie Gray](#)

Email: k.l.h.gray@reading.ac.uk

Being able to accurately and efficiently interpret social stimuli has enormous adaptive value. Research in our lab is primarily interested in how social stimuli, such as faces, facial expressions, body shapes and postures, and multiple people presented in the visual scene, are perceived and processed. We are particularly focussed on the perceptual and cognitive mechanisms that support social perception, including how people are recognised across encounters, how new identities are learned, how emotion is inferred, and the time courses and specificity of each of these processes. We are also interested in how multiple people are perceived within the visual scene, and the extent to which interacting dyads might be preferentially processed or grouped together in the visual system. In addition, we work within the ‘trouble with faces’ team (troublewithfaces.org) – a multi-site group of researchers interested in investigating the face recognition deficits associated with developmental prosopagnosia. PhD projects on the topic of social perception in typical or atypical populations can be supported.

Supervisor: [Dr Juliane Honisch](#)

Email: J.J.Honisch@reading.ac.uk

Our Social Cognition and Movement Rehabilitation Lab (SCMR) aims to examine the role of synchronised/coordinated movements on mobility (i.e. balance and stride length), social-cognition (i.e. increase in attention towards social stimuli, social connections) and wellbeing (i.e. mood). Currently, we are running research in collaboration with the NHS to examine different types of exercise interventions to reduce falls, increase muscle bulk and balance in older adults. This work would complement this type of work and may (depending on your interest) include cutting edge technology to explore how tools such as VR or AI may improve our understanding of the moving body and mind link and establish more individualised eHealthcare approaches to support healthy ageing. Successful candidates will have the opportunity to work closely with national and international collaborators (clinical experts, engineers and psychologists). The student will have access to the latest 3D motion tracking technology and medical body composition analysers, and will receive training on conducting kinematic analyses. We also encourage applications from individuals who have an interest in exploring virtual reality or augmented reality as a tool to analyse multi-person coordination. This PhD is suitable for individuals with a BSc/MSc in Psychology, Neurosciences, Engineering, Physiotherapy, or a related subject area.

A further project aims to explore the link between synchronous or timed movements with multisensory non-social and social cues and reading abilities in children. This project aims to help us further understand the multifaceted benefits of engaging in highly coordinated, synchronous movement activities in a social everyday setting. Depending on the applicant’s interests and skills, this project will most likely focus on healthy

children, but there may be the possibility of working with children with dyslexia. Students will have access to the latest 3D motion-tracking technology, force sensors and other kits to capture sound and movements at high frequencies. This PhD is suitable for individuals with a BSc/MSc in Psychology, Language Sciences, Engineering or a related subject area.

Supervisor: [Dr Fang Liu](#)

Email: f.liu@reading.ac.uk

Lab Website: [CAASD Website](#)

Speech, music, and reading are complex human cognitive functions involving the processing of sound. To many, these processes are fast, automatic, and effortless. However, individuals with congenital amusia and developmental dyslexia have difficulties in processing pitch and phonemes, which lead to disorders of music processing and reading, respectively. In addition, these individuals show overlapping deficits in auditory processing and speech perception, with impaired sensitivity and awareness of sound (be it pitch or phonemes) as a critical thread linking impaired cognition across speech, music, and reading domains.

Using a multimethod and multi-deficit approach, this PhD project will examine the cognitive and neural mechanisms of sound awareness, with the overarching aim of elucidating how sensitivity and awareness of sound categories impact speech, music, and reading skills in individuals with and without congenital amusia and developmental dyslexia.

Supervisor: [Dr Eugene McSorley](#)

Email: e.mcsorley@reading.ac.uk

As we move around the world, we experience it to be stable and coherent. In fact, ask most people and they say that what they experience is something like having a photograph in the head that they can look at whenever they like. This, of course, can't be true as we extract and retain far less visual information than we realise. This is largely because vision is necessarily limited by the multiple inhomogeneities present throughout the visual system, with fine detail being restricted to the central point of regard. There are also substantial roles for selective attention and higher-level cognitive control and executive functions too. One way these restrictive limitations are countered is by gathering more detail about the visual world by moving our eyes. The interaction between eye movements and our visual experience and how each is reliant on the other is of paramount importance and is of great interest to me.

PhD projects with me will involve examining this and can be focused on a range of underlying topics such as the visual and cognitive processing along with motor control, the role of decision making and reward. Projects on how this develops and break down over the lifespan and the effect of individual differences would also be welcome. I am also very interested in projects examining the Psychology of Art, aesthetics, and emotions.

Supervisor: [Dr Peter Scarfe](#)
Email: p.scarfe@reading.ac.uk
Lab Website: [Vision and Haptics Laboratory](#)

I am interesting in supervising PhD students on the following projects.

Integrating the senses in virtual reality : Virtual reality systems are fundamentally altering how we study human sensory perception. Similarly, to build good virtual reality systems we need a clear understanding of how the brain integrates sensory information into a robust and useful percept. One area where this is particularly important is in the design and use of robotic telepresence systems, which allow a user to work safely in remote or hazardous environments. This highly interdisciplinary project will investigate the way in which brain integrates information from vision and touch and how these mechanisms adapt over time with experience. The particular focus will be on using this knowledge to address real-world problems in virtual reality and haptic robotics as part of a wider multi-university and industry collaboration. The project will involve state of the art virtual reality and custom-made haptic robotics. It would be ideal for a student who is interested in technology and the way in which fundamental research in Perceptual Psychology can be used to solve real-world problems.

Processing faces in 3D: Social interactions are becoming and more integral part of virtual and augmented reality experiences e.g., purchase of Oculus VR by Facebook. This trend it only set to continue at an accelerated pace in the future. However, surprisingly little research has been carried out on how faces are perceived in 3D environments. Instead, the majority of face perception studies are carried out with 2D photos of faces, this greatly limits the application of this research to current and emerging technologies. This project will aim to extend face perception research by examining how information is processed from 3D faces in virtual reality with 3D scans of faces.

Improving tumour delineation with virtual reality and haptic robotics: Tumour delineation is a critical part of the treatment of cancer. However, there is large variability in the delineation of tumours across clinicians. This is a key problem to be solved in providing treatment to patients. There is ample evidence that perceptual tasks can be improved when multiple sources of sensory information are available e.g., information from both vision and touch. This project examine how the detection and delineation of tumours in medical imagine data can be improved by augmented visualisation with virtual reality and haptic robotics.

How do humans understand “how the world works”?: From a very young age humans gain the ability to use knowledge of “how the world works” to make predicts about future states of the world and the consequences of their actions within it. For example, a toddler understanding that rolling a ball into a pile of wooden block will knock the blocks down. Similarly, someone can tickle us, but we cannot tickle ourselves. How are these things possible? This project will examine human understanding of physical concepts such as gravity and kinematics and how this understanding shapes the way in which sensory information is calibrated, integrated and use to perceive the world around us.

Supervisor: [Dr Julia Vogt](#)

Email: j.vogt@reading.ac.uk

Lab Website: [Self-Regulation, Emotion, and Attentional Laboratory](#)

The Self-Regulation, Attention, and Emotion Lab examines various topics at the intersection of self-regulation, emotion, attention, and (social) cognition research. We aim to understand how people can achieve their many goals, solve goal conflicts and exert control, and regulate emotions. A focus is the interaction of various motivational states (e.g., emotional states and goals, or different goals), and the perception of motivationally relevant information.

Much of our work is based on social-psychological and cognitive models of self-regulation, but we apply our research to consumer, organisational, health, and clinical contexts. We currently investigate health-related goals (healthy diet, exercising), prosocial motivations (helping in emergencies, donations), and emotion-related goals (coping with negative emotions, pursuit of happiness). We often study basic cognitive processes such as attention allocation, inhibition, learning, or judgments and decisions, but also indicators of behaviour and intentions. Specifically, we study:

(i) The effects of various emotions (e.g., guilt, fear, anger, disgust) on attention, cognition, motivation, and behaviour: We aim to understand what emotions motivate people to do and how emotions shape basic attentional and cognitive processes, and behaviour. Examples include guilt and prosocial behaviour or disgust and cleansing. For future projects, we would also be interested in studying courage and shame.

(ii) Regulation of negative and positive emotional states: We apply a cognitive-motivational perspective in order to understand how people regulate and cope with negative emotions and pursue positive emotions and happiness. We investigate (i) what motivates people to regulate emotions (or not), (ii) how they know how to regulate (e.g., (social) learning of strategies), and (iii) how attentional processes or the pursuit of emotion-unrelated goals support or hinder emotion regulation.

(iii) Perception of obstacles and means in goal pursuit and goal conflict: We study how people perceive and attend to stimuli that could help or hinder achievement of their goals, with a focus on biases, this means, when and why people do have problems to perceive what helps and hinders achievement of their goals and successful self-control (e.g., licensing of goal failures).

PhD Projects in Cognitive Science (ii)

Clinical language science and language therapy; language development; psycholinguistics; neuroscience of language; multilingualism

Supervisor: [Dr Arpita Bose](#)

Email: a.bose@reading.ac.uk

I am interested in supervising PhD projects on language production impairments in aphasia, dementias; bi/multilingualism in neurogenic disorders, therapy and rehabilitation of aphasia.

Supervisor: [Dr Ian Cunnings](#)

Email: i.cunnings@reading.ac.uk

Lab Website: [Psycholinguistics and Neurolinguistics Lab](#)

I am interested in supervising PhD students in psycholinguistics. My research encompasses three broad areas.

Memory Encoding and Retrieval: Understanding language in real-time requires us to keep track of who did what to whom. This ability crucially depends on our ability to encode and retrieve information from memory during language processing. This project examines the factors that influence successful memory encoding and retrieval during comprehension. Students on this project will conduct a series of experiments, typically self-paced reading and/or eye-tracking during reading, but also potentially neuroscientific techniques such as EEG, that examine language processing. I welcome students interested in examining language processing in English or other (understudied) languages.

Multilingual Language Processing: This project examines first and second language processing. Achieving high proficiency in a second, non-native language can be particularly challenging in adulthood, and this project examines the factors that influence successful second language processing. Students on this project will run a series of experiments, such as self-paced reading or eye-tracking during reading or listening, but potentially also EEG. Work on this project typically examines English as a second language, but I am also open to supervising research into the acquisition and processing of other languages.

Development of Language Processing: How do children develop the ability to understand language in real-time? This project examines this issue using the visual world eye-tracking paradigm, where participants are presented with a visual scene whilst listening to sentences. Students on this project will run a series of visual world studies examining language comprehension in children. I welcome applicants interested in language development from the perspective of either monolingual and/or bi-/multilingual language acquisition.

Supervisor: [Dr Fatemeh Mollaei](#)

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Speech is a complex task requiring highly coordinated movements of a large group of respiratory, laryngeal and articulatory muscles and involves precise integration with auditory and somatosensory feedback to plan and execute speech movements. Speech production deficits in individuals with Parkinson's disease (PD) include a range of symptoms comprising reduced loudness, monopitch, imprecise articulation, and reduced respiratory control (bradykinesia). These changes can negatively affect an individual's quality of life. These symptoms may be due to brain changes resulting from a general neurological impairment of areas that control and adjust movements based on sensory input. Our research group aims to address the question of how behavioural and neural mechanisms of speech motor control and learning are impaired in individuals with PD. To address these questions, we will utilise behavioural paradigm of auditory feedback perturbation to probe speech motor control and learning functions along with the neural paradigm of electroencephalography (EEG) and auditory brainstem response (ABR) recordings that allows us to measure neural activity from different brain areas when participants perform a speech task. The outcome of this research will be used to determine the source of speech production deficits in PD and to ultimately develop new technologies for assessment and treatment of speech disorders in individuals with PD.

Supervisor: [Dr Christos Pliatsikas](#)

Email: c.pliatsikas@reading.ac.uk

Lab Website: [Bilingualism in the Brain Lab](#)

Increasing evidence suggests that speaking two or more languages has particular effects on the brain: First, it appears to change its function, structure and connectivity (Pliatsikas, 2020; Pliatsikas and Luk, 2016), and second, it appears to enhance the cognitive abilities of bi-/multilinguals, as well as to preserve them in older age, creating what has been dubbed a "cognitive reserve" in elderly bilinguals (Bialystok, Craik, & Luk, 2012).

The proposed research aims to build on the existing literature by using behavioural and neuroimaging methods to investigate questions such as: how do these behavioural and structural effects develop over time, and with increased bilingual experience? How do they affect brain development and ageing? Are factors such as proficiency and immersion in bilingual environments critical? What are the effects in situations such as bimodal bilingualism (where individuals use a sign and a spoken language) and bidialectalism/diglossia (where individuals speak two variants of the same language?)

Supervisor: [Dr Rachel Pye](#)

Email: rachel.pye@reading.ac.uk

In our research group we are interested in reading in multilingual environments; developing tests for dyslexia in multilingual environments; visual aspects of dyslexia.

Supervisor: [Professor Vesna Stojanovik](#)

Email: v.stojanovik@reading.ac.uk

I am willing to supervise PhD students interested in examining language and communication in individuals with genetic disorders (Down syndrome, Williams syndrome), interventions for children with language disorders, clinical markers of developmental language disorders (in different languages), and monolingual and bilingual language acquisition.

PhD Projects in Personalised Nutrition and Applied Research

Health psychology; mental health; eating disorders and personalised nutrition; chronic illness and injury

Supervisor: [Dr Katie Barfoot](#)

Email: katie.barfoot@reading.ac.uk

My research interests fall into the areas of nutrition, cognition, mood, women's health and mental health. I welcome project ideas across any of these areas.

Nutrition and the brain: To date, my main area of investigation is flavonoids. Flavonoids are naturally occurring compounds found in (but not limited to) fruits, vegetables and tea, and have been found to improve cognition and mood. My previous research has explored these effects in healthy and ADHD school-aged children, and in postnatal mothers. I have also supervised projects investigating the effects of flavonoid-rich dark chocolate and tea in young and older adult populations. I am open to ideas from students on flavonoid (e.g. berries, tea, cocoa, citrus fruits) or non-flavonoid (e.g. water, caffeine, vitamin D) nutritional interventions. Other suggestions or ideas for projects related to nutritional psychology are welcomed for discussion.

Exercise and the brain: I am also interested in the effects of exercise on the brain (cognition, mood or wellbeing). Some projects that would be of interest to me are: 1) Yoga vs. HIIT: Does exercise intensity affect psychological wellbeing? 2) The effects of aerobic and anaerobic exercise on cognitive function and mood.

For the areas above I would be happy to examine effects in different populations (e.g. pre-school children, adolescents, clinically 'at-risk' populations (ie. low mood, anxiety), older adults) if this was of interest to the student.

Supervisor: [Dr Katherine Finlay](#)

Email: katherine.finlay@reading.ac.uk

Developing novel interventions to manage chronic health conditions and chronic pain. This PhD will involve working with a population of people living with long-term physical health difficulties to develop health psychology-informed interventions to improve physical and mental wellbeing. It is anticipated that future PhD students would have a strong interest in clinical or health psychology and would be willing to work in a clinical environment. Currently, my research group has strong links/placements with patient groups such as people living with recurrent urinary tract infection, chronic pain, atrial fibrillation and spinal cord injury, though we invite further expressions of interest addressing other patient populations. We would be keen to hear from students with interest in physical health condition management and who are motivated to grow new areas of research combined with clinical practice. We have research/placement links with multiple Departments at Oxford University Hospital, the Royal Berkshire Hospital, the National Spinal Injuries Centre at Stoke Mandeville Hospital, Milton Keynes University Hospital and in Berkshire community pain services, as well as with urology patient advocacy organisations such as Live UTI Free. Examples of our ongoing work

include: adapted mindfulness for spinal cord injury, sexual wellbeing for people with spinal cord injury and their partners, psychoeducation to minimise health decline when on a pain management programme waiting list, developing patient reported outcome measures to assess quality of life when living with urinary tract infections, improving doctor-patient communication when discussing pelvic pain and bladder infections, and sedentary behaviour prevention interventions for wheelchair users.

It is possible to complete your Stage 2 Qualification in Health Psychology at the University of Reading in conjunction with your PhD, and Stage 2 supervision can additionally be provided to meet all BPS requirements for Chartered Health Psychologist Status.

Supervisor: [Professor Kate Harvey](#)

Email: k.n.harvey@reading.ac.uk

I am happy to supervise PhDs investigating eating and food preferences in children, adolescents and young adults. Much of my research focuses on how we can best support parents to encourage healthy and sustainable food choices.

I am a mixed methods researcher and can supervise quantitative, qualitative and mixed-methods research.

Supervisor: [Dr Daniel Lamport](#)

Email: daniel.lamport@reading.ac.uk

I am interested in supervising research exploring the effects of nutritional components, and more broadly diet, on cognitive performance and mood outcomes, including clinical and non-clinical populations throughout the lifespan. I also have an interest in exploring the impact of metabolic states and biological processes on cognition and mood, including type 2 diabetes, and glucose/insulin regulation, and activities which affect these biological processes such as exercise.

I welcome your own ideas in relation to these topics.

Supervisor: [Dr Paul Jenkins](#)

Email: p.jenkins@reading.ac.uk

I am interested in supervising topics on mental health, with a particular interest in disordered eating. My work has included 'non-clinical' and clinical samples, as well as looking at the effects of (psychological) treatment, patient characteristics, and the economic correlates of eating problems. A PhD thesis related to disordered eating can incorporate several diverse methodologies although I anticipate that most will include a (systematic) review of the relevant literature to inform subsequent (quantitative) projects. The specific topics for the PhD and sample(s) to be recruited can be discussed and agreed based on mutual interest, expertise, and the candidate's experience.

Supervisor: [Professor Claire Williams](#)

Email: claire.williams@reading.ac.uk

Effects of nutrients in the diet on cognitive and mental health across the lifespan (Williams): Representing one of the most important lifestyle factors, our diet can strongly influence the incidence and onset of cardiovascular and neurodegenerative diseases. A healthy diet is, therefore, an essential factor for healthy ageing. Work in my laboratory investigates the role of various dietary factors (i.e. flavonoids, vitamins, omega-3s, as well as components of the whole diet) on cognitive and mental health throughout the lifespan (from children through to older adults). Research over the last 10-15 years or so has shown that intakes of fruit and vegetables, and other macro- and micro-nutrients are important in early stage brain development and in the prevention of age-related cognitive decline. Our work is typically interdisciplinary in nature combining behavioural measures of cognitive function and mental health with cellular/molecular studies (such as urine and/or plasma analysis of relevant metabolites) and neuroscientific techniques (such as FMD, EEG and MRI).