School of Psychological Science

Supervisors - Academic and Research Interests

It is not always possible for staff to agree to supervise all students who wish to work with them. The main reason for this is the desire of staff to ensure that all students get appropriately intensive supervision.

If staff have too many students, all the students suffer. For this reason we recommend that you contemplate topics from more than one staff member in the early phases of discussion.

To speak with any staff members about potential supervision, please email them for an appointment or follow any specific directions they have provided below.

Students should note that not all of the following staff will be available in a particular year.

1. [Professor David Badcock](#)

2. [Dr Donna Bayliss](#)

3. [Dr Jason Bell](#)

4. [Dr Angela Bender](#)

5. [Dr Vanessa Bowden](#)

6. [Professor Romola Bucks](#)

7. [Dr Nichola Burton](#)

8. [Dr Sue Byrne](#)

9. [Dr Kate Crookes](#)

10. [Dr Patrick Dunlop](#)

11. [Associate Professor Ullrich Ecker](#)

12. [Professor Simon Farrell](#)

13. [Dr Nic Fay](#)

14. [Dr Yong Foo](#)

15. [Dr Allison Fox](#)

16. [Dr Gilles Gignac](#)

17. [Dr Ben Grafton](#)

18. [Dr Djurre Holtrop](#)

19. [Dr Mark Hurlstone](#)

20. [Dr Linda Jeffery](#)

21. [Dr Lisette Kanse](#)

22. [Associate Professor Shayne Loft](#)

[Professor David Badcock](#)

The way we see determines how we are able to interact with the environment. The focus of my research is on human visual performance.

My current research examines both the contribution of early visual pathways to individual tasks and the extent to which common neural and perceptual processes are involved in motion, pattern and position coding. The processes are investigated using both normal and clinical groups of observers.

Currently the laboratory group is running long-term projects examining how humans perceive both the speed and direction of the type of motion produced by moving through the environment, the processes that allow us to determine the location of objects within the environment, the processes that help us to detect and group large scale structure in the visual world and also one aiming to determine the nature of the long-lasting changes that arise as a consequence of migraine headaches. I also have a collaborative project with Murray Maybery on visual processing in autism.

[Back to top](#)

[Dr Donna Bayliss](#)

Working memory is an active memory system that is closely linked with educational achievement in children and also a range of cognitive abilities in adults including reasoning ability and fluid intelligence. It has also been implicated in a number of developmental disorders such as ADHD.

Current projects include:

- **Memory consolidation**. This refers to the process of transferring a fragile perceptual representation into a more stable memory representation. Current models of working memory do not incorporate a process of consolidation. However, in my recent work, I have provided evidence of the importance of consolidation for working memory in both children and adults, which challenges a number of current models. I am interested in furthering this research to advance and distinguish between competing models of working memory.

- **Social vulnerability in children**. Social vulnerability refers to a child's vulnerability to being tricked or misled by their peers. Recent research has linked social vulnerability to negative social outcomes such as bullying. I am interested in examining the causes and consequences of social vulnerability, particularly in relation to clinical populations that we suspect may be more socially vulnerable and, therefore, at risk of negative social outcomes.

- **Working memory in hearing-impaired populations**. An opportunity exists to examine the working memory performance of children who have a hearing impairment. Little is known about the working memory profile of these children and whether having a hearing impairment has any long term consequences for working memory, and the subsequent impact of any working memory difficulty on cognitive performance and educational achievement.

- **Working memory training**. I have developed a working memory training program for children and am interested in evaluating its efficacy with a range of developmental disorders known to have problems with working memory. This project would suit a Postgraduate student interested in cognitive development and educational achievement.

Interested students should email me to arrange a time to discuss specific projects further.

Back to top

Dr Jason Bell

My research areas include:

- **Psychophysical research**. My psychophysical research considers how the human visual system processes shapes and objects for recognition. Recognition is accomplished through the coordinated activation of distinct brain regions. My recent published work and my current research is advancing our understanding of how visual perception is achieved. More recently, I have also become interested in hemispheric specialisation. Current students are examining how attributes such as symmetry are processed differently by the left and right hemispheres

- **Clinical research**. I am interested in studying abnormalities of perception within particular groups. Together with Associate Professor Elizabeth Rieger (ANU) I am undertaking research to understand the attentional biases associated with eating disorders, including obesity. Current projects with Neurologists involve the study of perceptual abnormalities following head injury, or stroke. Visual task provide a highly sensitive measure to further understand these disorders. Collaborations with other clinical members of staff in the Research School of Psychology are being developed.

- **Sensory neuroscience**. Understanding functional specialisation in the brain is a fundamental goal of Neuroscience and Psychology. My lab currently offers opportunities to study the

effects of non-invasive cortical stimulation on perception, and behaviour. Current research projects and collaborations are utilising neuroscience techniques such as: transcranial direct current stimulation, or tDCS; transcranial magnetic stimulation, or TMS to make significant advances in our understanding of perception and behaviour.

Dr Angela Bender

My research covers a range of themes, including the neural and behavioural correlates of decision-making, how these mechanisms vary between individuals, and whether cognitive training can enhance performance on a range of cognitive control abilities. People often have to follow instructions to perform novel tasks. When instructions are presented, a cognitive task structure is created which involves the selection and inhibition of information from the perceptual and motor system. The creation of task structures allows us to engage with our complex environment in a flexible and rule-based manner. To investigate these topics, I use a variety of research methods such as non-invasive brain stimulation (transcranial direct current stimulation) and cognitive paradigms. Potential honours projects for 2018 may include:

- How do individual differences in the ability to structure tasks hierarchically influence decision-making in complex and highly dynamic task settings?

- Can transcranial direct current stimulation modulate the ability to structure tasks hierarchically?

Dr Vanessa Bowden

My research interests lie in the field of applied psychology and in using psychological principles to improve our understanding of how people complete a range of important everyday tasks. One topic I am particularly interested in is improving driver safety on the road and I am currently involved in projects aimed at training both new and experienced drivers in a simulator environment.

Working in collaboration with Associate Professor Shayne Loft and Associate Professor Troy Visser I am also involved in projects on prospective memory, situation awareness in complex tasks, and using eye-tracking technology to improve our understanding of how attention is allocated.

I would be happy to discuss potential projects that relate to any of these topics and can be contacted by email.

Professor Romola Bucks

My research interests centre on risk factors for cognitive decline in normal and abnormal cognitive ageing. Honours research projects could focus on:

- Understanding the impact of poor sleep on cognition or mood in community older adults.

- Exploring prospective memory as a sensitive marker of cognitive decline, and/or its relationship with activities of daily living.

- Exploring personality as a risk factor for cognitive decline in normal ageing.

- Hallucinations in normal ageing: are they more common than we think?

Research projects conducted under my supervision can be based on questionnaire or cognitive assessment methods, or some combination of these methods. Most honours projects are conducted in collaboration with Michael Weinborn within the Healthy Ageing Research Program (HARP).

Back to top

Dr Nichola Burton

My research is in the area of facial expression perception. Reading information from faces is an important social skill, and for most people this process feels automatic and effortless. However, this is actually a very complex task, and the cues that we read can be very subtle.

I am interested in the neural mechanisms that make this task possible. In particular, I am interested in supervising projects on the perception of facial expressions: how expression perception is affected by recent experience, how the perception of expressions relates to the perception of facial identity, and how we represent the similarities and differences between expressions in the brain so that we can recognise and distinguish between them.

Back to top

Dr Sue Byrne

My research interests lie in the field of clinical psychology. I have a particular interest in eating and weight disorders and I have a strong background in both research and clinical work in this area. My current research includes major projects which aim to identify causal pathways to eating disorders and obesity, and to test new treatments for these disorders.My research team provides evidence-based psychological treatment for eating and weight disorders in children, adolescents and adults.

Honours projects I have supervised in the past have included those focusing on psychosocial consequences of obesity in children and adolescents, binge eating and other eating disorder psychopathology in children and adolescents, testing various causal models of bulimia nervosa, outcomes of group cognitive-behavioural therapy for obesity in adults, the role of the media in the development of disordered eating, the relationship between fast food consumption and mental health, body image in males, predictors of drop out from treatment for eating disorders and the relationship between obesity and depression in children, adolescents and adults.

Back to top

Dr Kate Crookes

I research face recognition in the FaceLab, which is part of the Australian Research Council's Centre of Excellence in the Study of Cognition and its Disorders. People are generally very good at

recognising faces. We are able to quickly and effortlessly determine if a newly encountered face is someone we know or a stranger despite the extraordinary similarity of faces as visual stimuli. I am particularly interested in the perceptual processes that underlie this ability and how they are affected by experience.

I am interested in:

- How face recognition ability develops across childhood. Are we born face experts or is it a skill that takes many years of experience to develop?

- How face processing differs for own-race versus other-race faces. What causes us to be better at recognising people from our own race than people from other races?

Dr Patrick Dunlop

My research interests centre on personality, its measurement, and its role in explaining behaviour in multiple contexts. Specific projects I have in mind for aspiring honours and master's students to consider include

- Understanding the causes of impression management on personality assessments in high-stakes settings

- Identifying and trialling means to detect instances of impression management on personality assessments

- Understanding the role of personality in influencing prosocial behaviours

- Understanding the role of personality in negotiation behaviour and outcomes, and (with Mark Hurlstone) the role of individual differences in the willingness to contribute to public goods.

Research projects conducted under my supervision can be based on online surveys, traditional psychology experiments; economic experiments (e.g. coordination games; learning experiments; market games); or some combination of these methods.

Associate Professor Ullrich Ecker

My research interests lie in the field of memory and memory updating.

One question of interest is why people remember the things they remember (and forget the things they forget), and to answer this question I am contrasting interference and consolidation accounts of memory.

The second area of interest revolves around the processing of misinformation, and in particular the question why people continue to rely on outdated or invalidated information in their reasoning and decision making. I am currently investigating a number of factors that influence this failure of memory updating, including pre-existing attitudes, personality traits, and the effects of argument strength and repetition.

Dr Nicolas Fay

I am interested in collective behavior. My research extends traditional psychology, and its focus on individual cognition and behaviour, to the study of joint action (i.e., how people do things together). Three key research questions are listed below:

- **Creating Communication Systems from Scratch -** In the absence of a shared language, how might people create a communication system? Is one communication modality (gesture, vocal) better suited to language creation than the other?

- **Group Decision-Making -** Groups, from management to military, are frequently used to solve complex problems. Yet, group decision-making is often inferior to individual decision-making. How should groups be organized to optimize decision-making?

- **Social Learning -** People can learn from others instead of relying on individual trial-and-error learning (e.g., learning from someone that a fruit is poisonous rather than experiencing this firsthand). When do people choose to learn socially, and when do they choose to learn individually?

Professor Simon Farrell

I am interested in testing models of episodic memory, and looking at how we evaluate options when we make decisions, and choose between them. Some specific projects on offer are:

- (How) do we use memory to retrospectively evaluate experiences that extend over time?

- How does social context (competing or co-operating) affect decision-making?

- How does working memory load affect decision-making?

Dr Allison Fox

My research interests include examination of the timing and neural substrates of psychological processes with neuroimaging techniques, such as the event-related potential (ERP). These techniques are used to further understanding of both normal and impaired functioning. ERPs can provide valuable additional information about how people process stimuli, particularly in cases where overt behavioural responses cannot be reliably obtained.

Projects currently underway include investigation of the long-term effects of development, and substance abuse on cognitive functioning, as well as delineation of the nature of the processes contributing to error-monitoring, inhibition, memory, and perception using ERPs.

Research topics might include performance monitoring and maturation of auditory temporal processing, and I can be contacted by email to discuss potential research supervision.

Dr Yong Foo

Social perceptions of faces, such as attractiveness, dominance, and trustworthiness, play important roles in human interactions. They influence a wide range of social outcomes, from mate choice to hiring decisions and election outcomes. I am interested in the evolutionary basis of such perceptions. Some research questions that I am interested in include:

- What are the facial cues that signal attractiveness and how are they related to qualities such as physical health?

- How do individuals make judgments of physical strength and fighting ability from faces using cues such as face shape and facial expressions

- How do individuals perceive sexual faithfulness and how do they make use of this information during mate choice and mate guarding

Feel free to send me an email to discuss potential research topics.

Dr Gilles Gignac

My research is focused on the area of intelligence: the capacity to adapt to the environment using cognitive abilities. To measure intelligence, we usually use intelligence tests. I'm interested in understanding how human performance on these tests arises. Theoretically, performance arises through cognitive ability, however, there are other (additional) candidates, such as test-taking motivation and self-belief, for example.

I'm also interested in perceptions of intelligence among the general public, the impacts of intelligent behaviour on society, and the distinction between intelligence and expertise.

Dr Ben Grafton

Cognitive theorists contend that biased patterns of cognitive processing, across a range of operations including attention, interpretation, memory, and appraisal, causally contribute to individual differences in psychological resilience. The key aims of my research are threefold:

- to identify the patterns of biased cognitive processing associated with individual differences in psychological resilience;

- to determine the causal nature of observed associations between each such cognitive bias and psychological resilience; and

- to develop and test the capacity of novel cognitive technologies capable of altering the cognitive biases that causally underpin psychological resilience, in ways that therapeutically enhance such resilience, thereby delivering applied benefits to the community.

Much of my work involves collaborations with colleagues at international universities, which currently include Oxford, Kings College London, Amsterdam, Exeter, and others.

Dr Djurre Holtrop

Organisations thrive when they select the right people to work for them; however, it is not an easy job to select employees who are engaged and perform well. As an organisational psychology researcher and former selection consultant, I am keen on identifying employees who will deliver good performance. For me, an ideal selection procedure is both engaging and maximizes performance prediction. Currently, I'm interested in experimenting with new methods that go beyond regular questionnaire scales and tap into the wealth of information that is out there. This could be achieved by employing modern technology to automatically measure individual differences (such as personality, competencies and motivation) in a structured way.

Last year we (a group of masters students, several Organizational Psychology researchers and an Artificial Intelligence specialist) started an exciting project that may change our approach to measure individual differences. We investigated how we can deduce personality ratings (such as conscientiousness) from spoken and written text via fully automated text recognition. Additionally, we used the text-based personality ratings to predict the work performance of the participants.

I would like to work together with engaged students who are interested in automated measures of personality(or other KSAO's) via written or spoken text (such as essays, motivational letters, CV's) Together, I would like to refine the method we have previously developed and try it out in a selection context, simulation, or experiment.

If you would like to chat about some research ideas you can send me an email, or call me on 08 6488 4738.

Dr Mark Hurlstone

My research interests are diverse and span the following five areas:

- *Auditory distraction*: testing a duplex mechanism account of auditory distraction and attentional selectivity in which some forms of distraction are resistible and others are ineluctable.

- *Behavioural economics*: applying insights from laboratory experiments and psychology to economics, particularly the economics of climate change and other ecosystem issues.

- *Cognitive modelling*: computational and mathematical modelling of cognitive processes; model evaluation and selection issues; models of choice behaviour and response time.

- *Human memory*: short-term and long-term memory; serial recall memory; free recall memory; sequence learning; relationship between time and memory.

- *Psychology and climate change*: using principles of cognitive and social psychology to facilitate the communication of climate science.

Dr Linda Jeffery

I study how we process social information from faces and bodies. Subtle cues to identity, gender, ethnicity, age, attractiveness, emotional state and focus of attention need to be read from the face in particular. Critically, this information guides everyday social interactions, so expertise in extracting this information is vital for social functioning. However, reading faces presents a challenge to our brains because all faces are remarkably similar as visual patterns. Therefore, we rely on very subtle differences and variations between them to make all these judgements.

My research focuses on understanding how our visual system meets the challenge of rapidly and efficiently providing us with the information we need to read faces and bodies. I have a particular interest in determining how face perceptions skills mature in children but I also supervise projects investigating face perception in adults. I am also interested in understanding the sources of individual variation in these abilities among the general population and in determining why some clinical groups often have difficulties with faces (e.g. autism, prosopagnosia).

Dr Lisette Kanse

My research is in the area of human performance management. How do we make sure people work effectively, safely, and feel good at work? Work design, leadership, and organisational culture have all been found to have an impact on performance and other work outcomes.

One of the topics I am interested in in this context is human error, and how workers deal with human error. Traditionally errors are seen as negative occurrences that should be avoided. However, in many cases there is a difference between an error and its negative consequences, and as long as errors are detected and corrected in time, negative outcomes are avoided. A more modern take on errors is that they provide great learning opportunities, and can be beneficial for learning and performance overall.

Example research questions that would be of interest to explore through Honours or Masters research projects include:

- Can we change worker's error orientation through training?

- What is the relation between error orientation and performance?

- What factors have an impact on the transfer of error orientation training to work performance?

- How can we design work to facilitate error management?

This can be explored at individual level, but also in team settings, including virtual teams (which has been the focus of previous honours projects).

There are several honours projects available in the Human Factors and Applied Cognition (HFAC) Laboratory under the supervision of Shayne Loft.

Topics include but are not limited to:

- **Remembering to perform actions in the future**
  Failure to perform intended actions is a common everyday human error. For example, we may make a mental note to attend a meeting, or phone friends about weekend activities, yet fail to remember to do so. Usually such failures are merely annoying. However, in workplace settings such as healthcare and air traffic control they can be fatal. Research is conducted in the HFAC lab to build an understanding of the cognitive processes that support prospective memory in both basic and applied experimental tasks.

- **Measuring Operator Situation Awareness**
  The HFAC lab has ongoing research agreements with Australian and U.S Defence departments to develop situation awareness measurement tools and to test their reliability and validity in simulations of submarine control rooms and air traffic control. How do individuals maintain adequate awareness of their task environment, and how can display technology be designed to facilitate this awareness?

- **Task Automation**
  With the explosion of automated technology, the need for humans as supervisors of complex automatic control systems has replaced the need for humans in direct manual control. The HFAC lab conducts experiments designed to compare different mechanisms of delivering automation that are optimal for the human operator (using simulations of real-word work contexts).

- [Find out more about Shayne's research](#)

- [Send Shayne an email](#) or call Shayne anytime (08) 6488 4610 to discuss further.

Clinical theorists have attributed emotional disorders to cognitive idiosyncrasies, while cognitive theorists have developed models which suggest that emotional states will be associated with pervasive information processing biases throughout the cognitive system. Both clinical and cognitive models predict the existence of processing biases favouring emotionally congruent information in attention and interpretation.

Current research carried out by our Cognition and Emotion Research group, within the School of Psychology's Centre for the Advancement of Research on Emotion, uses cognitive-experimental paradigms to test such hypotheses, and focuses on several related questions including:

- Which particular attentional and interpretive biases govern the expression of these biases?

- How do the biases associated with emotional vulnerability change across the lifespan?

- Which particular forms of processing selectivity characterise heightened, rather than compromised, levels of emotional resilience?

- To what extent can these biased patterns of processing selectivity be intentionally controlled, and does restricted cognitive control capability elevate emotional vulnerability?

An overarching issue that pervades much of this work concerns identifying which cognitive biases causally contribute to which facets of emotional vulnerability. To address this issue we seek to determine how various manifestations of emotional vulnerability are influenced by directly manipulating differing aspects of selective information processing. Much of our work involves collaborations with research colleagues at other international universities, which at present include Harvard, Oxford, and the Universities of London, Ghent, Amsterdam, Exeter, Virginia and California.

Associate Professor Murray Maybery

Research in our Cognition, Autism and Neurodevelopment (CAN) lab has established that Autism Spectrum Disorder (ASD) is characterised by a unique pattern of strengths and weaknesses in attention and visual cognition. We have also shown that these atypical patterns extend to the broader autism phenotype (BAP), i.e. to people from the nonclinical population who report high levels of mild autistic traits. Another set of studies has investigated the role of sex steroids in the development of ASD, with a masculinised facial structure associated the condition.

Currently we are investigating the following questions:

• What are the key dimensions of autistic traits (e.g. social difficulties, repetitive behaviours, sensory sensitivity, insistence on sameness) and do they have independent causes?
• Is hyper-masculinisation (e.g. as represented in the face or voice) linked to particular dimensions of autistic traits?
• Is autism characterised by atypical lateralisation of brain function for language, spatial attention or social cognition?
• Why do people report unfavourable first impressions of people with ASD?
• How do autistic traits relate to differences in empathy, alexithymia, intolerance of uncertainty and anxiety?
• Does impaired global processing or enhanced local processing drive differences in visuospatial ability between low and high autistic trait individuals?
• Is semantic satiation (the automatic suppression of repeated material) impaired as a function of autistic traits?

Mr Neil McLean

My research interests span a range of areas within clinical psychology and human performance. Particular areas of interest include insomnia and the factors that influence sleep; attitudes towards psychological disorders such as depression and the impact of attitudes on help seeking; the impact of perfectionism on performance in sport and performing arts; the nature of ADHD and the validity

of ADHD diagnosis; and the cognitive processes and social/cultural factors underlying disorders of appetite.

I am also interested in the factors the inhibit people from adopting and maintaining exercise and the psychological and cognitive benefits of exercise.

Dr Lies Notebaert

Models of anxiety disorders consistently implicate the role of low-level information processing biases in the development and maintenance of psychological dysfunction. These models particularly emphasise the roles of selective attention for threatening information and negative resolutions of ambiguity.

Current research carried out by our Cognition and Emotion Research group, within the School of Psychological Science's Centre for the Advancement of Research on Emotion, uses cognitive-experimental paradigms to examine the role of these information processing biases, and focuses on several related questions including:

- Which particular attentional and interpretive biases govern the expression of these emotions?

- How do the biases associated with emotional vulnerability change across the lifespan?

- How and why does the readiness with which individuals acquire certain patterns if information processing biases serve to predict changes in their anxiety vulnerability across time?

- Which particular forms of processing selectivity characterise heightened, rather than compromised, levels of emotional resilience?

- To what extent can these biased patterns of processing selectivity be intentionally controlled, and does restricted cognitive control capability elevate emotional vulnerability.

- How can an understanding of selective attention and interpretation assist people to act in an adaptive way when faced with potential threat?

An overarching issue that pervades much of this work concerns identifying which cognitive biases causally contribute to which facets of emotional vulnerability. To address this issue we seek to determine how various manifestations of emotional vulnerability are influenced by directly manipulating differing aspects of selective information processing. In collaboration with the Bushfire CRC, a particularly pertinent research question concerns how this relation between emotional vulnerability and selective information processing contributes to adaptive or maladaptive behaviour when facing a chronic threat.

Dr Jeneva Ohan

My expertise is in child clinical psychology. Within this, I have two areas of major focus.

The first focus has been on understanding reasons why some children with social or emotional problems receive treatment for their difficulties, whereas others do not. We have many effective therapy options for children with mental health problems; however, less than half of parents with children who need these services will access services on their behalf. If we can find out why so many children are not accessing services, then we can begin to work to address access barriers in meaningful, effective ways. Much of my current work is examining the role that stigma about children with mental health problems plays in deterring parents from seeking care for their child.

This has led to an interest in the role that stigma plays in understanding the experience of children with mental health problems and their families. Not only must children and their families learn to cope with the child's symptoms, but they also must deal with the social consequences (which may range from exclusion, ridicule, or derision to support and encouragement). I have become very interested in these experiences and what this means for the overall adjustment of affected children and parents.

Secondly, I am interested in understanding how children's social interactions (especially aggressive interactions) with their peers develop over time. Much of my work on this topic to date has focused on children with attention-deficit/hyperactivity disorder (ADHD), and how girls with ADHD relate to others. However, I am also interested in other social interactions between children and their peers or parents (such as awkward interactions or friendship-building skills), and how this develops over time.

Professor Andrew Page

My interests concern the efficient and effective delivery of mental health services, the prediction and prevention of suicide and self-harm, and anxiety and depression. My research aims to improve treatments by understanding how therapies bring about their effects and the nature of the clinical conditions.

Specific research questions suitable for honours students include:

- What increases suicide risk and how can this risk be reduced?

- What thought processes cause psychological problems and how can we change them?

- How does exposure to feared stimuli reduce anxiety?

- How can we encourage clinical psychologists to make science-informed decisions?

Specific research questions suitable for doctoral and other graduate students include:

- How can progress monitoring improve outcomes in mental health services?

- How can suicide and self-harm be predicted and reduced?

- How effective are treatments (such as CBT and ECT) for depression?

[Associate Professor Romina Palermo](#)

My research aims to understand the perceptual, cognitive, and neural mechanisms underlying person perception. This often involves studying faces, as they provide information about the identity, age, sex, race, attractiveness and mood of other people, but also involves studying the perception of bodies and voices.

In addition to our work with typically developing children and adults, my lab also investigates person perception in children and adults with atypical development, psychopathology, or brain injury. This includes studies of developmental disorders affecting face processing (congenital/developmental prosopagnosia and autism); neuropsychological studies of people with brain injuries affecting face identity recognition (acquired prosopagnosia) and expression recognition (amygdala/orbitofrontal cortex lesions and Parkinson's); and investigations into psychopathology affecting person perception (social anxiety, callous-unemotional traits).

Please see the [Person and Emotion Perception Lab (PEPLab) website](#) for more details on recent Honours, PhD, and Clinical PhD projects.

[Back to top](#)

[Associate Professor Carmela Pestell](#)

As a practicing Clinical Psychologist and Neuropsychologist I am very interested in clinical research, particularly related to the neuropsychology of neurodevelopmental disorders such as Foetal Alcohol Spectrum Disorders (FASD) and ADHD, and the relationship between cognitive impairment and poor sleep.

I am also involved in research related to concussion, acquired brain injury and cognitive rehabilitation in children and adults. For example, the Acquired Brain Injury: Recovery, Engagement, and Community Outcomes Via Evidence-based Rehabilitation (ABI-Recover) project represents a collaboration between the Brightwater Care Group and the University of WA (School of Psychology).

Our research team (which includes Dr Mike Weinborn and Professor Romola Bucks) is investigating how thinking such as memory influence our ability to make a simple cup of tea, or manage more complex tasks such as taking medications. This research will hopefully allow for a better understanding of prognosis following brain injury in adults, as well as provide information as to what skills are most important for everyday functioning and in what areas of a person's life.

Examples of other current research projects I am co-supervising include investigating the role of age, gender and parenting factors on neuropsychological outcome and post-concussion symptoms (collaborative project with PMH); neuropsychological outcomes in adult concussion (collaborative project with RPH); emotional dysregulation in young adults with ADHD: Implications in timing deficits, poor working memory and impairments in attention; understanding the impact of metacognition on functional and rehabilitation outcome in patients with acquired brain injury; time perception in ADHD; does enhancing cerebrovascular function via exercise improve cognition in the aging brain; and neuropsychological outcomes in preterm neonates (collaborative project with Telethon Kids/KEMH)

[Back to top](#)

[Professor Gillian Rhodes](#)

Faces convey a wealth of information that guides our social interactions. At a glance we can assess a person's identity, gender, ethnicity, age, attractiveness, emotional state and focus of attention. This fluency is remarkable given the difficulty of the discriminations required.

We aim to understand the mechanisms (perceptual, cognitive, neural and evolutionary) of face and person perception, how these can vary between individuals, and how they may be impaired in disorders such as autism or schizophrenia. This work is conducted in the FaceLab, which is part of the Australian Research Council's Centre of Excellence in the Study of Cognition and its Disorders.

[Back to top](#)

[Dr Lisa Saulsman](#)

As a clinical psychologist with many years of experience in cognitive-behaviour therapy (CBT) for adults with chronic depression and anxiety disorders, I am highly interested in clinically applied research regarding contemporary CBT practices. Particularly, the use of imagery-based interventions to enhance CBT outcomes. This includes research questions such as:

- Is cognitive restructuring conducted in the imagery modality of cognition more effective than traditional verbal methods?

- Is metaphorical imagery superior to literal imagery in enhancing meaning and emotional change during cognitive restructuring?

- Does imagery training enhance client engagement and the emotional impact of imagery-based interventions?

- Does positive imagery or imaginal rehearsal enhance the engagement and impact of behavioural activation for depression? and

- What are the key ingredients for effective imagery rescripting for reprocessing negative life events?

In addition, I am currently developing a simple transdiagnostic and transtherapeutic approach to improving mental health, which can be delivered at different levels of intensity (i.e., online intervention, group treatment, individual treatment). Research investigating the effectiveness of this approach is high on my research interests.

[Back to top](#)

[Dr Werner Stritzke](#)

Not taking honours students in 2019

Current research focuses on the development of a model of craving applicable to a broad range of appetitive behaviours including addictions and eating disorders. Specifically, the role of ambivalence in understanding and treating excessive appetites is emphasised.

Projects may include:

- laboratory experiments examining reactivity to appetitive cues

- surveys investigating affective and motivational aspects of abstinence or restraint

- studies of the processes involved in children's evolving attitudes and decisions about substance use and non-use

More recently, I am also interested in applying the ambivalence framework to the understanding of the suicidal mind using both explicit and implicit measures with the aim to improve assessment and intervention for suicide risk

---

Dr Clare Sutherland

I am interested in how people form first impressions from the faces of others. For example, what makes someone look trustworthy or intelligent? My research involves understanding which impressions are important, and how these are formed. My work is conducted in the FaceLab, which is part of the Australian Research Council's Centre of Excellence in the Study of Cognition and its Disorders. Specific questions I have in mind for Honours or Masters projects include:

- What facial cues do people use to form their impressions?

- Are these impressions accurate?

- Are there individual and clinical differences in how people form facial impressions? (e.g. personality, autism quotient, schizophrenia)

- How do facial impressions affect behaviour (e.g. decisions to trust others)?

Associate Professor Troy Visser

Our team of researchers at the **Att**ention and **Hu**man **B**ehaviour [atthub] Lab investigates the interface between key human cognitive abilities, like attention and multi-tasking, and behaviours across a variety of situations. While we know a lot about these relationships in lab settings, we know much less about how these abilities differ across individuals and groups, or how these abilities influence everyday behaviours, like driving, or performance in specialized jobs, like the military or air-traffic control.

Lab research themes
1. Humans can only pay attention to a limited amount of information. As a result, perception and cognition begin to fail when people try to do more than one thing at a time. Our research tries to understand when and why these failures occur and how to reduce failures through cognitive training.

2. At an individual and group level, people vary in their abilities. Our research looks at individual differences in multi-tasking ability, as well as perceptual and cognitive advantages that tend to be found in groups, such as those with autism or autistic-like traits.

3. Even everyday activities, such as driving, can place significant demands on our cognitive resources. Our research looks at how cognitive demands influence a variety of human behaviours, using simulated environments such as motor vehicle operation, air-traffic control, and submarine track management.

If you think you might like to explore any of these kinds of topics for your honours thesis, please contact Troy @ troy.visser@uwa.edu.au

Back to top

Dr Serena Wee

I am interested in the practical problem of how to design effective and equitable selection systems. My research focuses on how individual differences relate to individual and group-level outcomes:

- What kind of hiring practices promote the recruitment and selection of a diverse and high-performing group of workers?

- What is the role of ability, interest, and personality in developing work-related skill and expertise?

- What can be done to encourage and support the workforce participation of individuals from minority/marginalised groups (e.g., women, mature workers)?

Back to top

Dr Michael Weinborn

My current research interests are focused on prospective memory functions in healthy aging, as well as in a number of clinical groups (e.g., individuals with substance abuse and depression). A particular interest is the linkage of laboratory measures of prospective memory and other executive functions to aspects of day-to-day functions, including medication management. Additionally, assessment of symptom validity in neuropsychological assessment is an ongoing research interest.

Specific projects likely for next year include:

- evaluation of aspects of prospective memory in healthy aging, depressed and high-risk alcohol using groups;

- assessment of the effects of induced alcohol craving on laboratory measures of decision making and risk taking in individuals with high reward sensitivity

- evaluation of cognitive load manipulations in the assessment of neuropsychological symptom validity tests.

I can be contacted at Michael.weinborn@uwa.edu.au or 6488 1739 to discuss potential research supervision.

Back to top