

Honours Students Research Options for 2021

Supervisor surname	Supervisor First name	Proposed Projects on offer in 2021 (subject to change)	Any additional requirements
Atkinson	Quentin	<p><i>A range of honours projects are available across the following three areas:</i></p> <ol style="list-style-type: none"> 1. The foundations of human political ideology - <i>Anyone who has debated politics over the dinner table knows that political opinions can vary widely, even within one family. But what is it that determines our views on taxation and welfare, military spending and climate change, abortion and gay marriage, and why do opinions about these seemingly disparate aspects of our social lives coalesce the way they do? This project will use survey and experimental data to identify the underlying psychological mechanisms that shape the human political landscape. This project will require and further develop good critical thinking, experimental design and quantitative skills. An interest in human evolution is preferred.</i> 2. Can religion help us save the planet? - <i>Opinions differ regarding the extent to which religiosity promotes or suppresses concern about the challenges of the 21st century, from climate change to vaccination. The 'religious right' in the US is notoriously blasé about the threat of climate change, for example. Conversely, Pope Francis has put the moral weight of the Catholic church behind climate action. However, the potential for religion to help motivate environmental concern remains understudied. This project will review research in the area and design experiments to test predictions regarding how the psychology underlying religion could be used to motivate prosocial environmental action. The project will require and further develop good critical thinking, experimental design and quantitative skills. An interest in human evolution is preferred</i> 3. Predicting cultural diffusion dynamics using networks - <i>A key aspect of understanding and predicting human behaviour lies in understanding how information spreads through cultural groups to shape our norms, values, behaviours, institutions, and technologies. Over the last decade, there has been increasing interest in the use of large network datasets to capture connections between individuals and populations. This project will use newly available data and network diffusion models developed in the Language, Culture and Cognition Lab to test hypotheses about how information spreads. We will apply these findings to predict diffusion dynamics for a range of phenomena, including political systems, ideologies and consumer goods.</i> 	<p>Recommended students have completed psych 317 and take Psych 725</p>

Ballard	Elaine	<p>Topics will be in the area of multilingualism. Possibilities would include but are not limited to</p> <p>a) language, culture and identity in a multilingual community in NZ b) language maintenance and shift in a multilingual community in NZ</p>	<p>It is recommended, but not essential, for students to have taken PSYCH313.</p> <p>Students who have an interest in a topic in bilingualism should email Elaine at e.ballard@auckland.ac.nz.</p>
Braun	Virginia	<p>My research using critical qualitative and feminist theoretical approaches to explore topics related to gendered bodies, sex and sexuality, and health, across a range of specific topics. Students interested in these areas and types of research should get in touch with Ginny via email v.braun@auckland.ac.nz.</p>	<p>In general, I expect students to have taken PSYCH319 if they are UoA graduates; students are expected to take PSYCH 733 as part of their honours year.</p>

Corballis	Paul	<p>Topics in the cognitive neuroscience of visual perception and attention. Possible projects include:</p> <ol style="list-style-type: none"> 1. Electrophysiology of target selection and distractor suppression in visual search. The project will explore the neural generators and functional significance of several lateralized ERP components that have been associated with the visual target selection and maintenance, and distractor suppression. 2. Competition for representation in the human visual system. The project will use event-related brain potentials (ERPs) and behavioural data (response times and accuracy) to explore the conditions under which visual stimuli compete for representation in the brain. The long-term goal of this research is to develop a technique for studying the functional architecture of the visual system. 3. Modelling the human face. The project will involve developing realistic computer-graphics models of the human face and facial expression. The long-term goal is to generate a highly configurable simulation of the face for use in psychological research. 3. The interaction between facial expression of emotion and selective attention. The project will use ERP and behavioural measures of performance to examine the influence of emotional stimuli – pictures or movies of facial expressions – on the allocation of spatial attention. 	Interested students should contact me to discuss requirements for this project. Some experience with elementary computer programming and/or data analysis would be helpful, but is not a strict requirement
Cowie	Sarah	<p>Topics relate to understanding how decision-making depends on past experience, current environmental cues, and potential future outcomes. Possible projects include:</p> <ul style="list-style-type: none"> • How past and potential future rewards and punishers, and information about these events, influence choice (in pigeons, and potentially humans) • The involvement of simple behavioural processes in planning and future-directed behaviour (in pigeons and potentially humans) • The neural and behavioural dynamics of fast and slow decision-making 	Interested students should contact me to discuss projects. Students will need to be available to assist with running of the lab and/or experiments. Students working with basic animal research or translation of these findings should take PSYCH759.

Erb	Chris	<p>Dr. Erb's research uses a technique known as <i>reach tracking</i> to investigate how processes across perception, cognition, and action are reflected in participants' hand movements as they perform computerized tasks by reaching to touch response targets on a digital display. His research explores a range of age groups (children, adolescents, young adults, and older adults) and topics in psychology, including:</p> <p>Cognitive Control: Human beings exhibit a remarkable capacity to control their thoughts and actions. Developmental and individual differences in this capacity have been linked to a wide range of important outcomes, including emotion regulation, academic performance, physical health, and success in the workplace. What are the key cognitive processes that underlie this capacity? How do these processes develop across the lifespan and differ between individuals? This line of research explores these questions by measuring participants' hand movements as they perform computerized tasks designed to target different aspects of cognitive control, including inhibitory control (the ability to suppress or override an impulsive response) and switching (the ability to flexibly shift between different tasks).</p> <p>Numerical Cognition: A longstanding question in the numerical cognition literature concerns the extent to which our bodies shape and reflect how we represent and reason about numbers. This set of projects uses reach tracking to explore how children's numerical cognition is reflected in their unfolding hand movements as they perform various mathematical tasks (e.g., identifying whether a number is smaller or larger than 5). This approach enables us to evaluate how children link their understanding of numerical relations to their understanding of spatial relations at different points in development.</p> <p>Attention and Distraction in Visually Guided Action: In order to behave adaptively, we must be able to focus our attention on relevant objects and events in our environment. This can be especially difficult in situations that feature salient distractions. This line of research explores how the ability to focus visual attention develops between childhood and adulthood by using visual search tasks that require participants to locate a target among distractors that vary along different dimensions (e.g., shape or colour). continued...</p> <p>Each of these projects will enable students to further develop their statistical and experimental design skills while also gaining familiarity with an exciting new behavioural research technique. Students particularly interested in development, embodied cognition, cognitive neuroscience, or computational modelling are especially encouraged to apply.</p>	<p>Working with children and families requires having a flexible schedule, given that much of our data collection takes place during the evening or on the weekend. Community outreach is also an important component of recruiting and connecting with families. Students interested in working with children will therefore be asked to help with data collection and community outreach on some evenings and weekends. Students will also be expected to attend lab meetings for one hour roughly every other week. Please feel free to contact Dr. Erb christopher.erb@auckland.ac.nz if you have any questions.</p>
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Elliffe	Doug	On-going research in the Experimental Analysis of Behaviour Research Unit. Probably investigating choice in pigeon subjects, but there is also some possibility of a project on stimulus equivalence with human participants.	<p>Must take PSYCH 759, and must make contact with me in advance.</p> <p>Must be available for 2 hours 1-2 days/week throughout the year to help run lab experiments.</p>
Gavey	Nicola	<ol style="list-style-type: none"> 1. <i>Media representations of sexual violence and abuse against men.</i> This feminist analysis will explore how this problem is framed, particularly focussing on the (1) gendered nature of abuse, disclosure/reporting and consequences, such as how it is portrayed in relation to masculinity and sexual difference (2) contextual and intersectional specificities, and (3) the relationship to MeToo. 2. <i>Other topics in feminist psychology.</i> Students are welcome to discuss any interests that overlap with topics including sexual violence, sexism and misogyny, image based sexual abuse, masculinity, violence against women, critical mental health. (Note that projects requiring new ethics applications are unlikely to be possible.) 	Please email Nicola to prior to application, to discuss the project, and ensure it is a good fit for your background and skills, and for recommendations about which honours courses to enrol in. It is recommended that students have taken Psych 319 and/or Psych 320, and/or have a background in gender studies.
Groot	Shiloh	My research interests are in community and liberation psychology, Indigenous worldviews and communities, resilience, the global self, poverty and wellbeing. My primary area of interest is homelessness, the sharp edge of poverty. I also explore the relevance and application of Māori and other Indigenous cultural concepts for understanding contemporary relationships and peoples' efforts to cultivate a positive sense of self and place. In particular my research is action-oriented where not only does theory and research inform practice, but practice also shapes the refinement of theory and research.	It is recommended that you take PSYCH 717. Interested students should contact Dr Groot to discuss the details of the project.

Hamm	Jeff	<p><u>Comparing Endogenous and Exogenous attention.</u></p> <p>1) We can choose to pay attention to a location in space, such as by paying attention to our left or right based upon the colour of a fixation cross (i.e. blue means attend left). In addition, our attention can be automatically drawn to a location, such as by a brief flash in our peripheral vision. It has been argued that these two forms of shifting our attention might be shifting the same or different kinds of attention. Attention can be quantified by looking at how much faster we respond to targets in the attended location compared to targets that appear in a non-attended location. So, if our voluntary shifts and the automatic capture are working on the same attention, then someone who shows a large difference in one condition should show a large difference in the other as well. If, however, different and unrelated forms of attention are being shifted, then there is no reason to assume having a large difference in one case tells us anything about the size of the difference in the other.</p>	<p>Students should be comfortable with statistical analysis and having completed PSYCH 201 and/or PSYCH 303 would be a benefit. Those interested should contact Dr. Hamm to discuss the project.</p> <p style="text-align: right;">continued...</p>
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Hand	Linda	<ul style="list-style-type: none"> • Further part of a qualitative study of special school staff on their perceptions of vulnerability in the children they teach. Data existing. • Investigating the effectiveness of interprofessional sessions between interpreters and speech language therapy students on the complexity of interpreted sessions. Data existing • The complexities of learning and maintaining language through sign in a hearing world. • Any project on children and communication difficulties, including youth justice areas, would be considered. 	<p>It is advisable, but not essential, to have taken PSYCH 313.</p> <p>Please email me if you want to discuss the proposed projects l.hand@auckland.ac.nz</p>

Hautus	Michael	<p>There are three major projects (below) and several other minor projects (bottom) in which to undertake a PhD or Masters thesis, an Honours Dissertation, or a Stage 3 research project (Directed Study).</p> <p><i>Satiation and the Textural Complexity of Foods</i> Would a texturally complicated food be more filling than the same food eaten as a puree? There are many factors contributing to the obesity epidemic; one small part of the puzzle is that people are simply eating too much. The role of satiation (the cascade of signals that ends an eating episode) is fraught with contradictory opinions. Of the many factors contributing to satiation, evidence suggests longer oral processing time plays an important role. However, in these studies longer times are frequently created by modifying food texture. Texture itself contributes independently to satiation via the sequence of sensations experienced during chewing. It would seem that the component of texture of important is its 'complexity'. I have a project that is seeking to define, quantify, and measure textural complexity. This research is linked directly into my broader programme of research on satiation.</p> <p><i>Hedonics, Satisfaction, and Preference Testing</i> Preference is not an intrinsic or measurable property of stimuli. It is a psychological dimension generated from the interactions between perceptions, memories, and internal psychological states. Preference influences choice, so the ability to quantify preference is essential to a scientific understanding of human behaviour. Measurement of preference is</p>	continued...
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currently based on an analysis of the responses given by a group; for example, 80% prefer X over Y. This is an inadequate measure because percentage preference does not indicate the magnitude of preference; 80% may prefer X over Y, but the magnitude of their preference may be small, or large; X may even be the least disliked option. Also, percentage preference is contaminated by response bias and other factors. For example, when presented with two identical stimuli, typically around 40% of judges will have a preference for one over the other; yet this selection can only be based on extraneous factors such as response bias. My current research is investigating approaches to the assessment of satisfaction and preference, in different sensory modalities, that overcome the limitations outlined above.

Modelling of Performance in Sensory Tasks

When an assessment of sensory (or other) performance is undertaken, the most desirable outcome would be to produce a measure of performance that is independent of both the task and the response bias of the individual. Signal Detection Theory (SDT) presents an approach to accomplish this by specifying separate measures of response bias and performance. In theory (but not quite in practice) SDT will provide the same estimate of performance for the same stimuli judged in different tasks. This is certainly not true of commonly used methods of performance, such as the proportion of correct judgements. My research has involved developing and evaluating SDT-based models for tasks such as the same-different task and the matching-to-sample task.

Other Projects in Experimental Psychology

I also have several projects underway in psychophysical research. These projects involve various aspects of model building, further improvement of advanced psychophysical techniques, and computer programming projects to design tools for psychophysical analysis. These projects are focussed on the auditory, gustatory, or olfactory sensory modalities.

Henderson	Annette	<p>Annette has a range of research projects available studying social and cognitive development across early childhood (0 – 6 years of age). Examples (but not limited to) include:</p> <p>Cooperation and prosociality in early childhood: Cooperative activities pervade our everyday lives. Given how essential cooperation is to human groups, it is not surprising that infants learn to cooperate early in life. However, little is known about the factors that influence the development of cooperative competence across early childhood. This project will involve being a part of a longitudinal study looking at the emergence of cooperation and other prosocial behaviours across the first six years of life. Questions the project might address are: Does previous cooperative experience influence later cooperative ability? Is there a relationship between socio-cognitive skills such as theory of mind and children’s cooperative competence or prosocial behaviour? What demographic factors influence children’s cooperative ability? Are infants who are good cooperators also good helpers? How does parenting shape early cooperative and prosocial behaviours? The specific question in this topic to be addressed in the honours thesis will be determined once the student has been matched to Annette. This project will be co-supervised with Dr Jess Aitken, a Research Fellow in the ELLA lab.</p> <p>Cooperation and communication in early caregiver-infant interactions: Infants engage in cooperative interactions with their caregivers from the moment they are born. The goal of this project is to identify the cooperative nature of early communicative interactions, such as peek-a-boo, free-play or word learning, that generalise across infant-caregiver dyads across the first two years of life. Questions the project might address are: How does technology influence caregiver-infant interactions? How does the structure of cooperative communicative interactions, such as peek-a-boo, change across in-person and digital contexts? How do these strategies differ across parent-infant dyads? How do parents teach their infants words at the earliest stages of development? Do parents respond to another baby (either AI baby, or human infant) in similar ways as to how they respond to their own baby? Can we build models of early parent-infant interactions? These are just a few questions that could be examined by the student working on this project. The specific question in this topic to be addressed in the honours thesis will be determined once the student has been matched to Annette. This project will be co-supervised with Alecia Moser, a Research Fellow in the ELLA lab.</p>	<p>It is recommended that students have taken PSYCH 326 and/or PSYCH 200.</p> <p>Students <u>must</u> take PSYCH 744, are strongly encouraged to take PSYCH 722 and/or PSYCH 764, and <u>must</u> be available for group meetings one afternoon a week.</p> <p>Honours students will be expected to help with recruitment and data collection for studies with infants and young children. Many of our families work during the week and thus, these studies are often run on the weekends. As such, students will be asked to help with studies and recruiting outside of regular university hours for some evenings and/or weekends throughout the academic year.</p> <p>Please feel free to contact me if you have any questions about these requirements, a.henderson@auckland.ac.nz</p>
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Hughes	Barry	<p>The sense of touch is the oldest of our senses, the first to ignite and the last to be extinguished. Students in my lab investigate questions as to how the skin is involved in perception, how the fingerpads can learn to read, how the hands are organs for both sensing and doing. I would love to work with students who are intrigued by questions related to perception, knowing and doing by touch. Our recent work involves braille reading, texture perception and how the skin codes number and density. Students will acquire new skills in experimental design, research methods, data acquisition (behavioural and perhaps EEG) and analysis, working at the cutting edge of research into this important sensory modality.</p>	<p>Students should be enrolled in PSYCH 746.</p> <p>Students who are potentially interested in this area should contact me to discuss.</p>
Jiang	Lixin	<p>People spend a significant amount of time at work; work can positively or negatively influence employees. Specializing in Occupational Health Psychology, my overarching research goal is to examine how factors promote or undermine employee health and well-being, as well as prevent and attenuate the negative impacts of work stressors on employees. Within this framework, examples of research topics that students could work on include, but not limited to:</p> <ul style="list-style-type: none"> • Job insecurity has been traditionally considered a bad thing. However, is there a situation where employees can actually reap some “benefits” from experiencing job insecurity? • It has been found that workplace incivility, bullying, and harassment negatively employees. But why? Which kinds of interventions are most effective in preventing such mistreatment from occurring? • Can parents’ work stressors influence their children’s well-being? If so, how and why? • Which kinds of leadership styles are most effective in terms of mitigating employee work stress and enhancing employee well-being? 	<p>Students must take PSYCH 744 (or equivalent).</p> <p>Students must also be available for weekly lab meetings.</p> <p>It is strongly recommended that students take PSYCH 761-Organizational Psychology and PSYCH 766-Occupational Health Psychology.</p>

Kirk	Ian	<p>The structural and functional human brain connectome. Functional (fMRI) or diffusion imaging of brain pathways in different populations. (e.g. different <i>BDNF</i> or <i>COMT</i> polymorphisms or elderly and Alzheimer's)</p> <p>Memory systems and EEG. Neural oscillations in memory networks. Looking at the role of theta, alpha and gamma in working, spatial or recognition memory.</p> <p>Memory and synaptic plasticity (human LTP; EEG, fMRI) and genetics (e.g. <i>BDNF</i> and <i>COMT</i> polymorphisms).</p> <p>Social neuroscience – political ideology. EEG signatures correlated with ideology or personality.</p> <p>All Projects involve a combination of the acquisition and analysis of high-density EEG, structural, or functional MRI, and/or genetic data.</p>	Students will likely have taken Psych 202 and 305 or equivalent, and will likely also take Psych 714 (and possibly 721 and 742), and Psych 744.
Lambert	Tony	<p>I am happy to supervise Honours projects investigating visual attention, eye movements and perception. Specific topics could include:</p> <ul style="list-style-type: none"> • Attention, eye movements & conscious awareness • Effects of ageing on vision for action and accident proneness • Emotional responses to visual images • Eye movements and visual art • Dual stream models of vision and mechanisms of attention shifting 	
Le Grice	Jade	<p>Jade's research programme explores the intersections of Indigeneity, gender, and youth through domains of reproductive decision-making, sexuality education, abortion, sexual violence prevention, and whānau. Theorising the connective tissue between lived experience, psychosocial and sociocultural contexts, knowledge, policy and practice – research projects are designed to highlight invisibilised issues, have community relevance, and address areas of social injustice.</p> <p>Honours projects will explore rangatahi wāhine Māori (young Māori women), rangatahi tāne Māori (young Māori men), kaumātua (knowledgeable elders), or key stakeholders' talk about health and wellbeing, relationships, sexual ethics, and sexual violence prevention.</p>	Familiarity with Kaupapa Māori, Mana Wahine and/or Critical psychology through the study of PSYCH320 and/or PSYCH319 is advised. Honours students are strongly advised to take postgraduate papers taught by members of the Psychology and Social Issues groups PSYCH 717, 726, 733 and 758, 767).

Lueders	Eileen	<p>Unique Insights into the Structure of the Human Brain</p> <p>You will be deeply involved in your very own brain mapping project applying a state-of-the-art tool to analyse neuroimaging data. The data have been acquired using structural magnetic resonance imaging (MRI) and are readily available for analysis. You will <u>not</u> need to collect any data. Various projects are available.</p>	<p>It is recommended that you either take PSYCH 736 and/or have experience in MRI data analysis.</p> <p>If you would like to know more, just send me an e-mail (e.lueders@auckland.ac.nz).</p>
Manuela	Sam	<p>My research focuses on mental health beliefs, Pacific peoples, and identity.</p> <p>I am interested in working with a student who is interested in developing a small project on either:</p> <ul style="list-style-type: none"> • Cultural differences in self-concept • Ethnic and gender stereotypes <p>These projects will require your assistance with the preparation of ethics applications and data collection. These projects will be suited to those that have an interest in Pacific research and are comfortable working within that space.</p>	<p>It is recommended students have taken PSYCH 320 and/or PSYCH 311. Students that have an interest in Pacific-oriented research can email Sam on s.manuela@auckland.ac.nz</p> <p>It is recommended the students enrol in PSYCH 758.</p>
Maxwell	Jessica	<p>My research is broadly focused on sexual well-being and romantic relationships, and uses quantitative methods.</p> <p>More specifically, topics may include (but are not limited to):</p> <ul style="list-style-type: none"> - How the media influences our sexual attitudes and beliefs - The role of incremental/entity mindset in relationship functioning - Implicit (i.e. automatic, gut-level) measurement of sexual satisfaction - How our expectations for our relationships affect relationship transitions (e.g., cohabitation, marriage) 	<p>These projects may require your assistance with various aspects of the research process including preparing ethics applications, collecting data, preparing tables/figures, coding videotaped interviews, etc. Students who have a passion for statistics and detail-oriented work will be a good fit.</p> <p>It is recommended students have taken PSYCH 204 and/or PSYCH 311. It is also strongly recommended that students</p>

			take PSYCH 716, PSYCH 768, and PSYCH 744 (or related courses).
McCann	Clare	<ul style="list-style-type: none"> • Qualitative study examining participation in a gavel club for people with aphasia • The impact of communication difficulties in criminal justice settings. • An evaluation of gender bias in the speech language therapy profession. 	It is advisable to have taken PSYCH 313 or PSYCH 300.
Miles	Anna	Training empathy using virtual patients: speech-language therapists' case history taking.	
Moreau	David	<p>Research in the lab is centered on three main goals:</p> <p>(1) Theoretical: understanding the mechanisms of behavioral and neural change: <i>How does the brain change? To what extent, and in what respect? Are those changes sustained over time?</i></p> <p>(2) Methodological: refining the measurements and methods to evaluate these dynamics; <i>How can we develop tools that help measuring change in the brain? What existing techniques can we leverage in this specific field?</i></p> <p>(3) Translational: designing and implementing interventions to improve mental and physical health. <i>How can we harness the malleability of brain and behavior to improve human performance? Can the same methods be used to treat or alleviate brain disorders?</i></p> <p>Multiple projects are available in these three domains</p>	Prospective students should contact David (d.moreau@auckland.ac.nz) to discuss specifics and requirements.

Overall	Nickola	<p>Nickola's students will have the opportunity to be involved in a large-scale longitudinal project examining family resilience and wellbeing, including how couples, parents and children manage a range of challenges, such as relationship conflict, problems with parenting, emotion regulation difficulties, and life stress. Examples of research topics that students could work on include:</p> <ul style="list-style-type: none"> • identifying the communication strategies that are most effective in resolving relationship conflict and the communication dynamics that increase the risk of relationship dissolution and divorce • investigating how and when adults' communication and emotion regulation strategies during marital conflict impact the health, wellbeing and social functioning of their children • exploring how power and sexist attitudes influence family dynamics, including emotional and behavioural reactions to conflict and biased perceptions of relationship and parenting interactions • examining the impact of attachment insecurity and depressive symptoms on family functioning, including parenting, and identifying the factors that can overcome these vulnerabilities • investigating the impact of (a) different emotion regulation strategies or (b) social support in protecting psychological and physical health from the damaging effects of stressful life events 	<p>It is recommended students have taken PSYCH 311. Students will be required to take PSYCH 716 and it is recommended that students take PSYCH 744. All students who are interested in these (or related) topics should email Nickola for more information (n.overall@auckland.ac.nz).</p>
Osborne	Danny	<p>Topics broadly situated within the areas of intergroup relations and political psychology. The specific research topics may include, but are not limited to:</p> <p>The effect of stereotype threat on women's performance in maths.</p> <p>Forms of system justification and their impact on people's attitudes toward (in)equality. The system-justifying functions of political ideology.</p> <p>The impact that racial stereotypes have on people's memory of others.</p> <p>The effects of moral credentialing on people's attitudes toward racial minorities</p> <p>General topics on intergroup relations in New Zealand.</p>	<p>It is recommended students have taken PSYCH 204 and/or PSYCH 311. It is also strongly recommended that students take PSYCH 700 and PSYCH 744 (or related courses). All students who are interested in these (or related) topics should email Danny (d.osborne@auckland.ac.nz) before applying to the program.</p>
Peterson	Elizabeth	<p>The other F word</p> <p>Research has shown that we can learn more from our failures than our successes, yet for many people, failure is something that is shameful and best not talked about it making it harder to deal with and learn from.</p>	<p>I recommend students take</p> <ul style="list-style-type: none"> • PSYCH 744 (or equivalent) • PSYCH 722.

		<p>For others, failure is something that they constantly worry about, they feel like an imposter and that sooner or later someone is going to find out they are not as clever as others think they are.</p> <p>Possible topics in this area include but are not limited to:</p> <ul style="list-style-type: none"> • How does a student's approach to failure relate to their help-seeking behaviour? • How do different types of impostership relate to help-seeking behaviour? • How do emotions and emotion regulation across an assessment period differ for those who succeed vs fail or perceive they will fail? • How can we create learning environments for students to make mistakes that they can learn from? <p>Growing Up in NZ (www.growingup.co.nz)</p> <p>Growing Up in NZ (GUiNZ) is a multidisciplinary longitudinal study following approximately 6500 children from before birth and the children are now 10. There is enormous number of potential topics that can be explored using this data set.</p> <p>Possible topics include (but are not limited to):</p> <ul style="list-style-type: none"> • How does parental personality, parenting practices and child temperament interact to affect child behavioural outcomes? <ul style="list-style-type: none"> • What are the highlights and challenges facing parents of 2 year olds and are these different from those reported at 9 months old? • How does temperament and parenting interact to affect children's weight outcomes? • What is the effect of antenatal alcohol exposure on temperament age 4? • How do infant and child temperament relate to early language development? • How does early self-control development relate to aggression and problem solving at aged 8 	<ul style="list-style-type: none"> • Students must also be available weekly lab meetings • Student working on GUiNZ will assist on other aspects of the project <p style="text-align: right;">Continued...</p>
Purdy & Leung	Suzanne Joan	<p>2021 Topic: Auditory processing in adults with mild cognitive impairment (MCI)</p> <ul style="list-style-type: none"> • Project for one Honours students • How does auditory processing and cognitive performance compare between MCI and healthy controls? 	<p>It is recommended but not essential that you have taken PSYCH 313. Interested students should e-mail sc.purdy@auckland.ac.nz</p>

		<ul style="list-style-type: none"> Does auditory training impact on auditory processing performance, and have secondary impact on cognition? <p>How acceptable/accessible are remote/online assessments and training for older adults with and without MCI?</p>	
Roberts	Reece	<p>Dr. Roberts is looking for one or two honours students to investigate the aging brain. The project(s) will involve investigating either fMRI or EEG data from participants between the ages of 20 and 80 years old to determine how these signal change with age, and how these changes mediate age-related changes in cognitive performance.</p>	<p>Would suit students who have taken Psych 305 Successful students will be required to take Psych 736, Human Brain Mapping., Interested applicants should contact Dr Roberts to discuss research projects r.roberts@auckland.ac.nz</p>
Schwarzkopf	Sam	<p>1. <u>Illusory size perception in real-world contexts</u></p> <p>How large a visual object appears to an observer crucially depends on the context in which it is viewed. For example, the cars in the image on the left are all physically identical, but the top one appears larger than the bottom one. A similar effect can be seen in the Ponzo illusion (image on the right) and both illusions are often interpreted as depending on an interpretation of a three-dimensional scene. Anecdotal evidence, however, suggests that inversion of the image interferes with the photorealistic illusion on the left while it doesn't modulate simple geometric images like the Ponzo illusion. This could indicate separate mechanisms involved in our perception of object size. In this project, we will use psychophysical experiments both in the lab and via online-data collection to test this hypothesis.</p> <p>2. <u>2. Mapping human visual cortex under free-viewing and resting conditions</u></p> <p>The human visual cortex is organised into a topographic visual field maps. Functional MRI can reveal this architecture non-invasively. However, such retinotopic mapping experiments require stable fixation and repetitive visual stimulation without cognitively engaging the participant. This renders such experiments tedious even for healthy normal adults and severely complicates their use in patient populations or children. It further</p>	<p>School of Optometry & Vision Science</p>

		<p>precludes such mapping experiments entirely when the participant's eyes are closed. However, recent advances in imaging analysis enable us to construct a map of functional connectivity between brain areas. In this project we will use data from resting state scans and free-viewing of movies to test whether such "connective field maps" enable us to reconstruct the retinotopic organisation without the use of explicit mapping stimuli. First, we will compare this approach with traditional mapping in normal healthy adults. Then we will seek to apply this method to data from special populations, for example resting-state data from young children.</p>	
Sibley	Chris	<p>6-7 possible honours topics to choose from:</p> <ol style="list-style-type: none"> 1. How can we measure psychological distress in New Zealand? This study will validate and provide normative data for a measure non-specific psychological distress, anxiety and rumination in the New Zealand population using data from the New Zealand Attitudes and Values Study '(NZAVS)'. The study will also look as specific differences across gender, age and ethnic groups in psychological distress in the New Zealand population. 2. How many New Zealanders are using facebook, and is facebook use linked to psychological outcomes? This study will analyse data from the NZAVS to look at the use of facebook in a nationally representative New Zealand sample, and document trends across cohorts. The study will also examine psychological correlates and outcomes associated with facebook use in the population. 3. What do New Zealanders value? The study will look at the social values held by New Zealanders, such as values of equality, authority, tolerance, and respect for elders, using data from the NZAVS. The study will also look at possible change in the values held by New Zealanders over the last three years, and across different groups in New Zealand society. 4. What predicts identification with multiple ethnic groups? This study will look specifically at people in the NZAVS who identified with multiple ethnic groups and 	<p>Required courses are PSYCH 744 and PSYCH 731. Students should come and talk to me in person to discuss the topic and details</p>

		<p>examine whether identification with multiple group memberships changes over time. The study will try to determine what factors might predict change in the identification with only one ethnic group, or with multiple ethnic groups, and test whether this is linked to psychological health and wellbeing in different contexts</p>	
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5. Does income predict life satisfaction, and if so for whom? This study will use data from the NZAVS to examine the extent to which income is linked with various measures of subjective wellbeing and health. The study will determine at which point income reaches a point of diminishing returns in predicting subjective wellbeing. The study will also explore whether the link between income and life satisfaction holds constant for different group in society, or whether income is more strongly linked to wellbeing for some groups relative to others.

6. What predicts the wellbeing and acculturation of Asian immigrants in New Zealand? This study will use data from the NZAVS to look specifically at Asian immigrants living in New Zealand. The study will look at the factors that buffer or ameliorate the psychological health, wellbeing, and acculturative stress of Asian peoples in New Zealand society.

7. How do women's and men's body images differ? And do differences in body image predict difference in psychological health, rumination and eating behaviour? This study will use data from the nationally representative NZAVS dataset to look at men's and women's levels of satisfaction with their bodies depending on their BMI and income.

Continued

The research will examine possible gender differences and the power of social roles in the extent to which concerns about body image predict psychological wellbeing, eating behaviour and self-esteem for people within different BMI ranges.

Slykerman	Rebecca	<p>In addition to my University position, I work at Starship Hospital as a Clinical Psychologist & Neuropsychologist My research interests and projects are broadly in the area of child & adolescent brain development, brain injury, neuropsychology and mental health.</p> <p>Projects include but are not limited to:</p> <ul style="list-style-type: none"> • Investigating the cognitive, behavioural , emotional, social and academic outcomes of brain insult and injury in childhood. • The impact of chronic or severe illness in childhood on development. • The impact of cancer treatments on the developing brain. • Stress, anxiety and psychological wellbeing in young people and those in healthcare <p>I also have a research stream investigating nutrition, probiotics and health outcomes in infants, young people and adults. These projects involve clinical trial data examining the impact of probiotic supplementation on psychological and immune system health.</p> <p>Projects typically involve using patient data or research with children, young people and their families. Projects can be quantitative or qualitative</p> <p>If you would like to ask questions or discuss projects feel free to email me on r.slykerman@auckland.ac.nz</p>	
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Stasiak	Karolina	<p>I am a psychologist with a keen interest in youth mental health issues and digital (eHealth/mHealth) interventions (apps, chatbots, web-based tools, VR etc). I work in a very multi-disciplinary team at Grafton and really enjoy working with School of Psychology students (having graduated from it myself!). I have co-developed SPARX (sparx.org.nz), the world's first online intervention for depression in a form of a serious game for adolescents. I am currently running a large pilot implementation trial of a suite of digital interventions in secondary schools and there are opportunities to do student research projects associated with this. We have a web platform that allows us to rapidly test novel interventions. We also have software engines that allow to create new content for chatbots (conversation agents) to deliver engaging mental health/lifestyle interventions. If you're interested in any of this, get in touch please.</p> <p>Some of the topics I am interested in are:</p> <ul style="list-style-type: none"> • Engagement in e-therapies - how do we make them more 'sticky'? • Gamification and serious gaming for health - can you 'play away' depression, stress or anxiety? • Virtual reality/augmented reality – disruptive technologies for better health • Self-help vs. supported help - what do people prefer and why? • Health apps - what role do they play in supporting our wellbeing? • Tertiary students' mental health, wellbeing and resilience • Migrant health and wellbeing • School-based wellbeing and health innovation • How do we integrate digital health into clinical services? 	
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Sumner	Rachael	<p>Several neurological and psychological disorders are linked to the human female menstrual cycle. Examples include premenstrual dysphoric disorder (PMDD), a severe worsening of mood leading up to the menstrual cycle, and catamenial epilepsy seizure exacerbation where women with epilepsy experience a two-fold increase in their seizure frequency.</p> <p>Beyond being timed around the menstrual cycle, the underlying causes of these disorders are poorly understood. Furthermore, it is interesting that the combined oral contraceptive pill, despite regulating the hormone changes associated with the menstrual cycle, does not treat these disorders and in some cases makes them worse.</p> <p>The aim of this project is to understand how the combined oral contraceptive pill affects EEG signal over the course of each month.</p> <p>Students will learn skills in human EEG data collection and analysis as well as furthering their understanding of human female sex steroid mediated neuroendocrinological health and disease.</p> <p>Potential paths to investigate include:</p> <ul style="list-style-type: none"> • Changes to neural plasticity using a visual long-term potentiation task • Measuring the GABA/glutamate mediated excitation and inhibition balance by inducing neural oscillations in the visual cortex • Changes to the resting-state EEG 	It is recommended that students have taken PSYCH305 and/or 202.
Taylor	Alex	<p>The Clever Canine lab at UoA (http://clevercaninelab.auckland.ac.nz/) is focused on understanding how dogs think. We hope our research will not only shed light on how social intelligence evolves, but also lead to a better understanding of dog-human social interactions.</p> <p>We currently have Honours projects available that will focus on developing the use of non-invasive EEG recording for dogs. This project aims to develop EEG techniques that can be used to not only understand how dogs' minds work, but also find better ways of selecting dogs for highly intensive training programs, such as those required when training guide dogs for the blind or mobility dogs.</p>	<p>Recommended students have completed psych 317 and take Psych 725</p> <p>Useful to have volunteered at the Clever Canine Lab</p>

Tippet	Lynette	Testing the efficacy of a memory training programme on healthy older adults.	
Waldie	Karen	Predictors of mental health status at 8 years of age Persistence of behavioural problems from ages 2 to 8: Growing Up in NZ	

The following staff members are unavailable for Honours supervision in 2021

Addis	Donna Rose
Braun	Virginia
Harre	Niki
Le Grice	Jade (tbc)
Wetherell	Margaret

The following staff members are available only to students who are selected into the clinical programme

Barker-Collo	Suzanne
Cartwright	Claire
Cowie	Susan
Dudley	Margaret
Gibson	Kerry
Lambie	Ian
Willis	Gwenda