UNSW SYDNEY

SYDNEY POSTGRADUATE PSYCHOLOGY CONFERENCE

2022 Programme

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WELCOME

The University of New South Wales is delighted to welcome you to the 2022 Sydney Postgraduate Psychology Conference. This is an annual student-organised conference that offers an exciting opportunity for postgraduate students to present their research within a supportive and constructive environment.

We hope that you enjoy learning about the latest psychology ideas and findings from a diverse range of research fields.

Please use **#SPPC2022** and tag **@SPPC_UNSW** and **@UNSWScience** to engage with your fellow researchers on Twitter.

Organising Committee

Sophia Liang
Cassie Ma
David Cohen
Joanne Gladding
Octavia Soegyono
Katarina Kikas
Ratih Arruum Listiyandini
Tayla McCutcheon

Acknowledgements

We would like to thank the dedicated staff at the UNSW School of Psychology for making this conference possible. Thank you to all the volunteer judges, chairs, and panellists for their time and expertise. We would like to thank our sponsors, UNSW School of Psychology, Australian Clinical Psychology Association (Clinical/Applied prize), Positivity Institute (courses), and Association for Behavioural and Cognitive Therapy (membership) for sponsoring this event. Finally, thank you to all the students who shared their research with us today.

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Schedule

TIME	EVENT	LOCATION
8:30	Registration Opens	Foyer
9:00	Welcome Address	CLB 6
9:15	Keynote	CLB 6
10:00	Session 1	CLB 1-4
12:00	Lunch	Foyer
1:00	Session 2	CLB 1-4
3:00	Afternoon Tea	Foyer
3:30	Data Blitz	CLB 6
4:00	Panel	CLB 6
4:45	Awards and Prizes	CLB 6
5:00	Post-Conference Social	Royal Hotel Randwick

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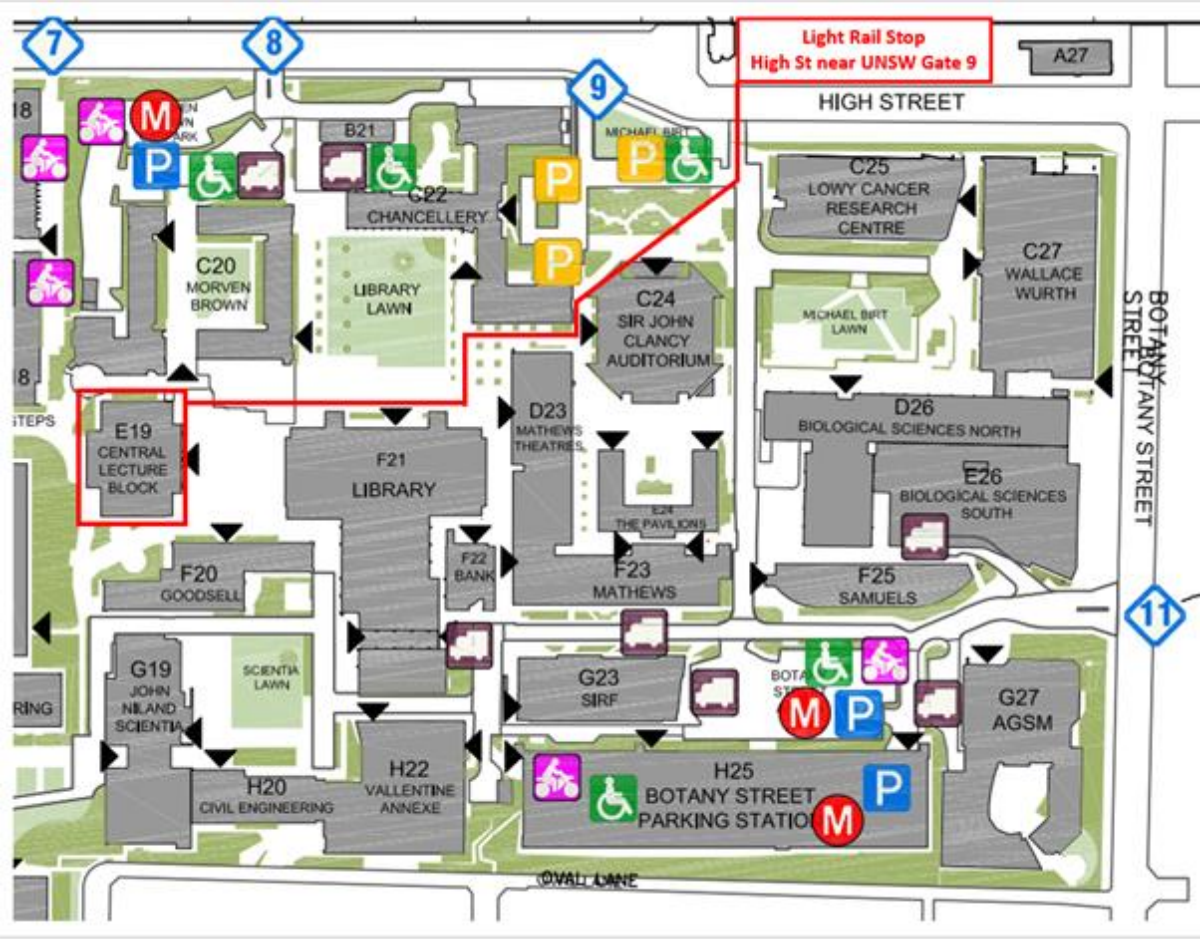
Location Map

To see a PDF version of the compete UNSW Kensington Campus with parking and accessibility information, click here. Click here see an interactive campus map and accessibility routes.



By Light Rail: Catch the L2 Randwick Line and hop off at the UNSW High St Gate 9 stop. The L2 Randwick Line includes 14 stops between Circular Quay and Randwick.

By Bus: Several routes will take you to UNSW from the CBD or surrounding suburbs. Buses heading towards UNSW will predominantly stop along Anzac Parade and require an additional 10-15 walk to the Central Lecture Block. For a map of the bus routes around UNSW and where they stop, explore this map.

By Car: All-day (paid) casual visitor parking is available on the top levels of the multi-story car parks located via Gate 11 Botany Street and Gate 14 Barker Street. 2P and 4P short-term casual visitor parking is also available via Gate 5 High St, Gate 8 High St, and Gate 14 Barker St.

By Bike: UNSW is accessible for cyclists with many bike racks around campus.

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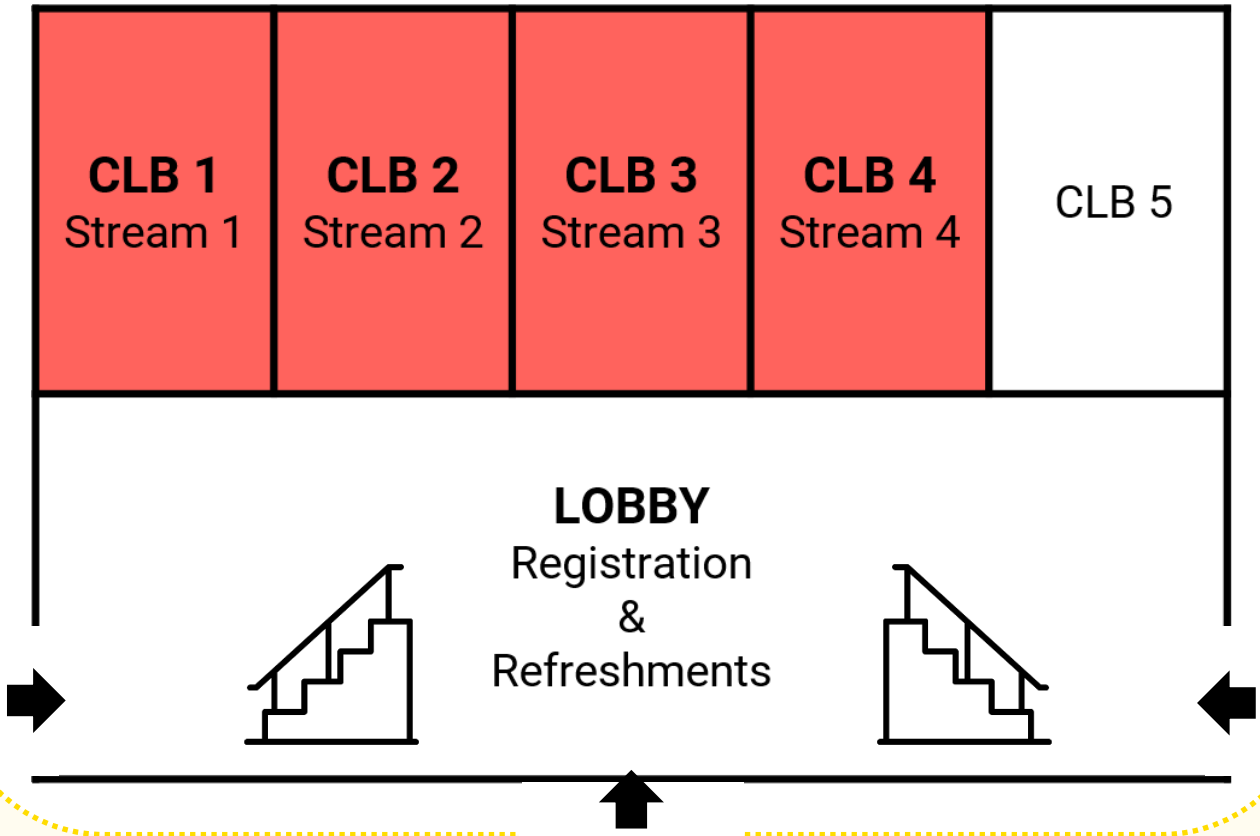
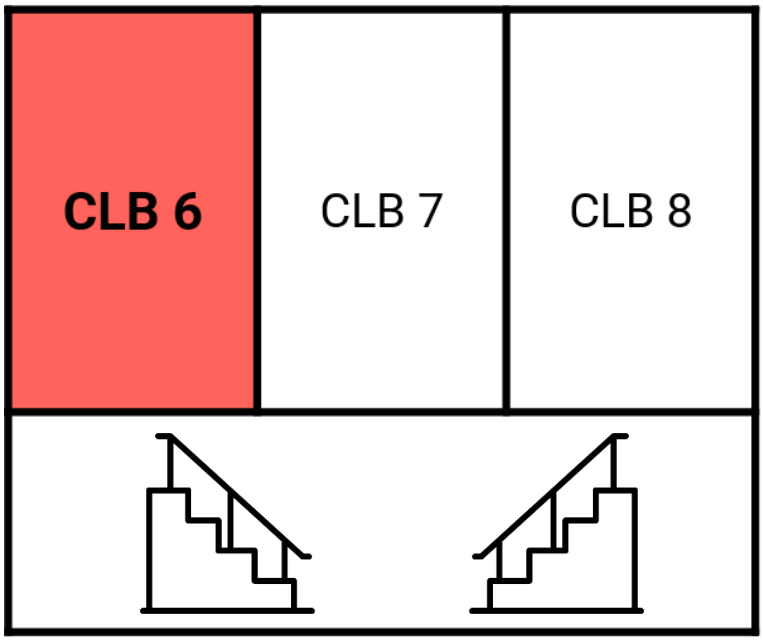
Venue Map

Ground Floor



First Floor



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Keynote Speaker



Dr Clinton Schultz is a proud Gamilaraay/Gomeroi man, psychologist and Doctor of Philosophy. Clinton's PhD, which was awarded a University Chancellor's medal, was in Aboriginal Health. His research focuses on holistic well-being for members of the Aboriginal and Torres Strait Islander health workforce.

*

Dr Clinton Schultz is currently the Director of the First Nations Strategy Team at the Black Dog Institute. Clinton also worked as an Assistant Professor at Bond University for the past five years, developing the social and emotional wellbeing (SEWB) and culturally diverse content in medical and allied health programs. Clinton was the Indigenous Allied Health Association (IAHA) Professional of the year in 2019.

*

Clinton has run cultural competency training across various organisations in his capacity as Director of Marumali Consultations. As the founding Director of Marumali in 2009, Clinton was an author and facilitator of Forming Culturally Responsive Practice (RACGP accredited cultural competence training). Clinton also ran cross-cultural EAP/EPS services specialising in assisting the Aboriginal and Torres Strait Islander workforce and their families. Clinton is a Board member of the Queensland government's First Children and Families Board (QFCFB) and was Deputy Chair of the QLD Child Death Review Committee Panel (CDRCP) from 2019-2021 in addition to sitting on the Qld Child Death Review Board (2016-2019).

*

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Panel Discussion

So, you have a PhD, what next? If this is a question that has ever crossed your mind, then this panel is for you. We have a collection of speakers from a range of different fields who were once in the same positions as you, wondering what to do after their PhD. They will be talking to you about their experiences, along with answering any burning questions you may have.

Our guest panellists include:

- Ashleigh Morse (*NSW Behavioural Insights Unit*)
- Uwana Evers (*Puzzle Partners*)
- Wu Yi Zheng (*Black Dog Institute*)
- Cam (Juan) Olaya (*Boehringer Ingelheim*)

The panel will be hosted in CLB 6 at 4pm and will be followed by awards.

Awards & Prizes

Please join us in acknowledging and celebrating the best student presentations during the closing ceremony at 4:45pm. Prizes are available for the top two presentations from each stream (Applied, Clinical, Neuroscience, Experimental) and one prize will be awarded for the Data Blitz.

Post-Conference Social

A post-conference social will be held at the Royal Hotel Randwick in the Sports Bar. The hotel is a 15-minute walk from UNSW Central Lecture Block.

Where: Royal Hotel Randwick, 2 Perouse Rd, Randwick

When: 5pm onwards

Snacks and beverages will be available!

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Talk Schedule

Time	CLB 1 Stream 1 Applied	CLB 2 Stream 2 Clinical	CLB 3 Stream 3 Neuroscience	CLB 4 Stream 4 Experimental
8:30	Registration (Foyer)			
9:00	Welcome (CLB 6)			
9:15	Keynote (CLB 6)			
10:00	Nusaibah Islam	Alixandra Risi	Anastasia Serafimovska	Augustine Nguyen
10:20	Amy Hofmeier	Cheryl Jialing Ho	Fang Lan	David Ng
10:40	Jean-Noel George	Silvana Kaouar	Siobhan Shaw	Hasibe Kahraman
11:00	Joshua O'Neill	Sophie Champion	Elizabeth Haris	Isabelle Kaiko
11:20	Marjorie Li	Janice Yung	Anastasia Suraev	Laiton Hedley
11:40	Shanara Visvalingam	Erica Martin		Lawrence Chung
12:00	Lunch (Foyer)			
1:00	Ingrid van Tongeren	Anthony Joffe	Brandon Richards	Omid Ghasemi
1:20	Kelly Nunes-Zlotkowski	Edwina Keen	David Cohen	Sophia Shatek
1:40	Kyra Webb	Kayla Greenstien	Jodie Pestana	Veronika Kosourikhina
2:00	Sharon He	Nell Norman-Nott	Connie Badolato	Wendy Higgins
2:20	Adele Samra		Rhianne Scicluna	Lauren Stavropoulos
2:40				
3:00	Afternoon Tea (Foyer)			
3:30	Data Blitz (CLB 6) Caitlin Tedesco Cassandra Ma Isobel Williams			
4:00	Panel Discussion (CLB 6)			
4:45	Awards and Prizes (CLB 6)			
5:00	Post-Conference Social (Royal Hotel)			

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Stream 1

CLB 1 | Applied

Session 1	Speaker	Title
2:40 PM	Nusaibah Islam	The relationship between cognitions and fatigue in a community sample
10:20 AM	Amy Hofmeier	“Dad taught me what I want for my children’s father”: The changing roles and impact of fathers in Australia
10:40 AM	Jean-Noel George	Dream Machines? Examining Children's Thoughts and Feelings about Animals and Toys to Inform Robotic-Pet Design
11:00 AM	Joshua O’Neill	Left Fascism? The Predictors of Left-Wing Ethnic Extremism
11:20 AM	Marjorie Li	Can Learning a non-Western Musical Instrument Promote Intercultural Understanding among White Australians?
11:40 AM	Shanara Visvalingam	A longitudinal cross-lagged study examining how perfectionism leads to social disconnection

Session 2	Speaker	Title
1:00 PM	Ingrid van Tongeren	The role of sleep in directed forgetting
1:20 PM	Kelly Nunes-Zlotkowski	Systematic review of blended therapy interventions for the treatment of psychological disorders in adult patients: a background study for BT implementation research in Psycho-oncology in Australia
1:40 PM	Kyra Webb	Fear of cancer recurrence experiences in ovarian cancer caregivers: A qualitative study
2:00 PM	Sharon He	Implementation of Geriatric Assessments in Cancer Care: An Umbrella Review
2:20 PM	Adele Samra	The influence of problematic social media on psychological wellbeing in pregnancy: Social comparisons and body dissatisfaction as a potential mechanism.
2:40 PM	Nusaibah Islam	The relationship between cognitions and fatigue in a community sample

Stream 2

CLB 2 | Clinical

Session 1	Speaker	Title
10:00 AM	Alixandra Risi	Military families with young children: Understanding and supporting their post-deployment experiences
10:20 AM	Cheryl Jialing Ho	The Early Home Learning Environment and Shared Book Reading Practices in Singapore
10:40 AM	Silvana Kaouar	Parental Warmth and Criticism Differentiate Conduct Problem Subtypes in Young Children
11:00 AM	Sophie Champion	Beyond the therapy room: Why is it so hard for some carers to stop reassuring kids with OCD?
11:20 AM	Janice Yung	Taking Experts at Face Value? Jurors' evaluation of expert witness testimony on face identification evidence in court
11:40 AM	Erica Martin	Tipsy, Trashed or Totalled? Alcohol Intoxication in the Australian Criminal Justice System

Session 2	Speaker	Title
1:00 PM	Anthony Joffe	Understanding emotional labour: An empirical examination of its relationship to emotion regulation and to wellbeing and burnout in Australian psychologists
1:20 PM	Edwina Keen	Mental Health Literacy and Service Preferences for Somatoform Disorders amongst Australian University Students
1:40 PM	Kayla Greenstien	Ethical considerations for the use of touch in psychedelic-assisted therapy
2:00 PM	Nell Norman-Nott	The No Worries' Trial: Managing Emotions to Reduce Pain

Stream 3

CLB 3 | Neuroscience

Session 1	Speaker	Title
10:00 AM	Anastasia Serafimovska	Robot vs. Human: Validating AI administered Telephone Interview for Cognitive State (TICS-M)
10:20 AM	Fang Lan	Neuroimaging profile of hippocampus and its association with memory aspects in dementia
10:40 AM	Siobhan Shaw	Exploring Anhedonia in Frontotemporal Dementia
11:00 AM	Elizabeth Haris	Structural and Functional Connectivity of Amygdala Subnuclei in PTSD
11:20 AM	Anastasia Suraev	Acute effects of combined cannabidiol (CBD) and delta9-tetrahydrocannabinol (THC) in insomnia disorder: a randomised, placebo-controlled trial using high-density EEG

Session 2	Speaker	Title
1:00 PM	Brandon Richards	Investigating the properties and behavioural roles of RXFP3+ zona incerta/lateral hypothalamus neurons
1:20 PM	David Cohen	Second-Order Conditioning Involves Formation of Competing Danger and Safety Associations
1:40 PM	Jodie Pestana	Motherhood alters menstrual-related changes in anxiety symptoms: A translational approach in female rats and women
2:00 PM	Connie Badolato	CBD dose-dependently lowers alcohol intake in mice: Exploration of receptor mechanisms
2:20 PM	Rhianne Scicluna	Cannabidiol and opioids…Not what weed expect

Stream 4

CLB 4 | Experimental

Session 1	Speaker	Title
10:00 AM	Augustine Nguyen	Does allowing for changes of mind influence initial responses?
10:20 AM	David Ng	Is Illusory Causation a Failure to Learn Correctly, or a Failure to Correct Mislearning?
10:40 AM	Hasibe Kahraman	Cross-Language Morphological Transfer in Similar-Script Bilinguals
11:00 AM	Isabelle Kaiko	Getting stuck daydreaming: Uncovering the relationship between spontaneous thought and cognitive flexibility in anxiety
11:20 AM	Laiton Hedley	Investigating the Performance and Behaviour of Human-Machine Teams and Human-Human Teams under Collaborative and Competitive conditions
11:40 AM	Lawrence Chung	Neurophysiological Evidence of Corollary Discharge Dysfunction in Inner Speech in Schizophrenia

Session 2	Speaker	Title
1:00 PM	Omid Ghasemi	The impact of training on logic-based and belief-based reasoning
1:20 PM	Sophia Shatek	How do you know it's alive? Exploring correlates of categorisation behaviour under time pressure
1:40 PM	Veronika Kosourikhina	Reasoning when beliefs and logic clash: role of inhibitory control and learned skills, and broader issues in measuring conflict detection
2:00 PM	Wendy Higgins	Perspectives on measurability in the psychological sciences: possibility, progress, and phantasm
2:20 PM	Lauren Stavropoulos	Imagery Rescripting for Worry Images: A Preliminary Experimental Investigation

Data Blitz

CLB 6

	Speaker	Title
3:30 PM	Caitlin Tedesco	Neuropeptide Y neurons in the central amygdala and the regulation of feeding following bariatric surgery
3:35 PM	Cassandra Ma	Infralimbic but not prelimbic cortex mediates cued punishment expression and fear expression to the cue in a conditioned punishment task
3:40 PM	Isobel Williams	Can Sodium Butyrate be used to treat deficits associated with perinatal methadone exposure in female and male rat pups?

Abstracts

Stream 1 | Applied

10:00AM | Nusaibah Islam | University of New South Wales

The relationship between cognitions and fatigue in a community sample

Background: Fatigue is amongst the most frequent complaints received by health professionals and is associated with significant functional impairment. Nevertheless, the aetiology of fatigue remains poorly understood. Physiological factors (e.g. poor sleep) are often perceived as the primary cause of fatigue, yet studies report these factors do not fully account for fatigue. Emerging evidence suggests perceptions about fatigue and repetitive negative thinking (RNT) are associated with fatigue in both general and clinical populations. Across two correlational studies, we aimed to examine how different negative cognitive styles relate to distinct aspects of fatigue in the general population.

Methods: Online questionnaires measuring fatigue (symptom intensity, associated impairment, duration), cognitions (rumination, worry, fatigue-focused rumination, fatigue catastrophising, dysfunctional fatigue beliefs, perceptions of control), lifestyle and demographic factors were administered to general community samples in both studies. Hierarchical multiple regression analyses were conducted to determine the relationship between fatigue and cognitions, controlling for confounding variables of sleep, health, stress, and mood.

Results: Rumination was positively associated with fatigue-related impairment, whereas worry was positively associated with fatigue intensity and duration. Fatigue-focused RNT showed positive correlations with all fatigue outcomes. Positive correlations emerged between internal locus of control and dysfunctional fatigue beliefs with fatigue intensity and impairment, respectively. Physiological factors did not consistently predict fatigue.

Conclusion: Together, these results imply a central role for cognitive factors in fatigue in the general population. Moreover, it appears distinct cognitive mechanisms may underly various aspects of fatigue. These findings may inform development of fatigue treatments based on the cognitive factors identified.

10:20 AM | Amy Hofmeier | University of Wollongong

"Dad taught me what I want for my children's father": The changing roles and impact of fathers in Australia

Background & Aims: Fathers are increasingly involved in their children's lives. However, compared to the mother-child relationship, the contribution that fathers make to children's social emotional development has received little attention. This study aimed to gain a deeper understanding of the role of fathers within the family system and to examine the ways in which paternal influence transmits across generations.

Method: A community sample of 31 adults aged 19 to 58 years (M = 30.68, SD = 12.08, 58% female) participated in an online survey and a semi-structured interview about their childhood experiences of being parented and their beliefs regarding the role and impact of the father in the family. Participants came from a range of family compositions (intact 55%, separated 23%, absent parent 13%). Interview duration ranged from 26 to 91 minutes.

Results: Thematic analyses of the interviews' revealed fathers were perceived to have multiple roles within the family context: teacher, playmate, male role model, protector, disciplinarian, supporter, and advice giver. Greater role flexibility was identified within the experiences of younger participants. Another prominent theme was of "pendulum parenting", with many participants identifying paternal behaviours that they had not liked and wished to avoid themselves in their current or future parental roles, or behaviours they wished had been present, which they sought to create within their own current or future parenting roles.

Conclusions and Implications: Our findings document the changing roles of fathers in Australia in the twenty-first century. Notably there was a shift in terminology used by younger adults from the "role of a mother" and "the role of a father" to the 'role of a parent'. Our findings also underscore how positive and negative parenting experiences transmits across the generations and therefore have the potential to inform interventions promoting healthy and supportive father-child relationships.

10:40 AM | Jean-Noel George | Macquarie University

Dream Machines? Examining Children's Thoughts and Feelings about Animals and Toys to Inform Robotic-Pet Design

Pet companions can function as a supporting pillar of children's well-being and socio-emotional development. However, familial, cultural, health, financial, and material conditions and constraints can prohibit many children from having a pet companion. Robotic pets are potentially one way to provide such children with access to similar benefits reported by families who live with a live pet companion. This study takes a mixed-method approach to identify the key elements that underlie children's engagement with and attachment to objects that inspire robotic pet design - animals, toys, and pets - and to consider how social factors impact these key elements on a robotic pet platform.

Children aged 5 to 11 participated in semi-structured one-on-one interviews in an online show-and-tell. With a critical-realist approach, age-appropriate and engaging interview techniques were employed to generate data and will be analysed using a reflexive thematic approach. Additionally, quantitative data on children's attachment to pets, caregivers' attitudes towards pets, and related sociodemographic variables will be descriptively analysed to supplement the qualitative findings.

This study is essential to understand the physical, behavioural, and otherwise corresponding features of animals, toys, and pets that are most relevant to and best suited for effective robotic pet companions for children. In bettering our understanding, this study also provides a unique opportunity to improve robotic pet research and design efforts to support children's socio-emotional development.

11:00 AM | Joshua O'Neill | Macquarie University

Left Fascism? The Predictors of Left-Wing Ethnic Extremism

In the year 1950, Theodor Adorno and colleagues published 'The Authoritarian Personality'. In this foundational work, Adorno et al. (1950) presented an instrument to measure authoritarianism labelled the ‘fascist scale’ or ‘F scale’. Although initially fraught with reliability problems, the scale was modified into the robust ‘Right-wing authoritarianism scale’ in order to assess Right-leaning forms of authoritarianism (Duckitt, 2001). Despite the success of research in this area, there has been a notable absence of attention devoted to the notion of what may be termed ‘Left fascism’. Indeed, Adorno appeared to change their mind, giving assent to the reality of Left fascism in a letter to their colleague, Hebert Marcuse. With the recent publication of the Left-wing Authoritarianism scale, we sought to determine the beliefs that may contribute to Left-wing ethnic extremism, specifically, Left-wing ethno-nationalism. We posited four variables as predictors of Left ethno-nationalism, namely, belief in a zero-sum game, anti-objectivism, belief in social justice, and Left-wing authoritarianism. We report the results from survey research that was conducted across three samples. In two samples Left authoritarianism predicted ethno-nationalism, and in turn, both belief in a zero-sum game and social justice predicted Left authoritarianism. In the final sample we found belief in social justice negatively predicted Right-wing nationalism and was in turn, positively predicted by Left-wing authoritarianism. Implications are discussed.

11:20 AM | Marjorie Li | Macquarie University

Can Learning a non-Western Musical Instrument Promote Intercultural Understanding among White Australians?

Australia is a multicultural society, yet a lack of empathy and biases towards ethnic groups instigates racial and ethnocultural tensions. Therefore, effective strategies are needed to nurture cultural understanding to minimise ethnocultural tensions and maintain social cohesion. Rich intercultural music engagement (RIME) was proposed as one of the strategies, but evidence of its efficacy is weak. RIME is defined as an embodied form of music engagement in which individuals immerse themselves in foreign musical practice, for example, by learning to play a traditional instrument from that culture. The present study investigated whether RIME with Chinese or Middle Eastern music can nurture intercultural understanding among White Australians. Participants (N = 58) were randomly assigned to one of the two plucked-string learning groups: Chinese pipa (n = 29) or Middle Eastern oud (n = 29). There were 26 females and 32 males ranging in age from 17 to 67 years (M = 29.78, SD = 15.91). Before and after the RIME lessons, participants completed measures of Ethnocultural Empathy, Inclusion of Other in the Self, Attitudes towards Ethnocultural Groups, and Implicit Association. They also responded to open-ended questions about their experience. Following only two sessions of RIME, White participants exhibited a significant increase in ethnocultural empathy and tolerance, feelings of social connection to Chinese and Middle Eastern people, and improved explicit and implicit attitudes towards the

ethnocultural groups. Not surprisingly, however, these benefits differed for the two cultural groups. The study provides the first experimental evidence that the participatory non-Western music learning that RIME offers may be an effective tool to promote intercultural understanding and reduce cultural bias.

11:40 AM | Shanara Visvalingam | Macquarie University

A longitudinal cross-lagged study examining how perfectionism leads to social disconnection

Perfectionism is linked to a variety of mental health conditions in university students. The Perfectionism Social Disconnection Model posits that perfectionistic individuals exhibit interpersonal difficulties (i.e., rejection sensitivity and interpersonal hostility), which contribute to social disconnection, and in turn lead to psychological distress. Although several longitudinal studies have found that social disconnection mediates the link between perfectionistic traits and psychological distress, less is known about how perfectionism leads to social disconnection. The present study aimed to address this gap. Eight hundred nighty-five first-year university students were enrolled to complete one survey a month for three consecutive months. We found that increases in socially-prescribed perfectionism lead to increases in rejection sensitivity and interpersonal hostility which in turn lead to increases in loneliness. We also found that rejection sensitivity (but not interpersonal hostility) mediated the socially-prescribed perfectionism and loneliness relationship. However, statistically significant relationships were not evidenced for self-oriented or other-oriented perfectionism. These results suggest that individuals high in socially-prescribed perfectionism may be at risk for poor psychological wellbeing due to difficulties in maintaining interpersonal relationships.

1:00 PM | Ingrid van Tongeren | University of Sydney

The role of sleep in directed forgetting

Introduction: Forgetting can be intentional and functional. An outstanding question is what aspects of a memory are suppressed when you are instructed to forget? Additionally, whilst it is well-recognised that sleep plays a role in the active consolidation of memory, it is unclear whether cueing during wakefulness might also be able to selectively target learnt information for forgetting.

Method: We used an adapted item method directed-forgetting (DF) paradigm to investigate these questions. In Study 1, participants (n = 53) studied visual word-pairs followed by a Remember-, Forget- or No-instruction. Participants were then tested on their recognition of either visually or auditorily presented intact (old) word pairs, rearranged (new) word pairs, or semantically related novel word pairs, immediately following learning and after one hour delay. In Study 2, participants (n = 55) completed the second test 24-hours later, after sleep.

They also provided self-report sleep measures and wore a portable actigraphy device to provide an objective physiological measure of sleep.

Results: In Study 1 we found a typical positive effect for to-be-remembered items, but to-be-forgotten items did not differ from baseline. This pattern also generalised to the auditory modality. Behavioural results from Study 2 suggest a typical DF effect with below baseline accuracy for to-be-forgotten items and above baseline accuracy for to-be-remembered items. Sleep measures were used to group participants into disrupted or normal sleep. Participants with disrupted sleep performed worse and made more errors (i.e., identified rearranged pairs and novel pairs as old) than the normal sleep group.

Conclusions: Sleep enhanced directed forgetting and protected participants from recognition errors. DF effects generalised across more complex, relational stimuli suggesting the instruction works at the level of the bound configuration rather than the individual elements. DF effects also generalised across modalities suggesting initial encoding of an abstract rather than a perceptual representation.

1:20 PM | Kelly Nunes-Zlotkowski | University of Sydney

Systematic review of blended therapy interventions for the treatment of psychological disorders in adult patients: a background study for BT implementation research in Psycho-oncology in Australia

Background: research suggests the efficacy and cost-effectiveness of blended psychological therapy (BT) in the cancer context. Blending online with face-to-face interventions provides an opportunity to increase access to treatment; to improve therapy uptake and adherence; to assist with treatment maintenance; and to boost therapy effects.

Aim: This systematic review (SR) synthesises the literature to investigate content and structure characteristics of digital and face-to-face components in BT.

Method: Following the PRISMA guidelines, we examined articles regarding interventions blending online and face-to-face treatment components, either integrated or delivered sequentially. Articles published in English were identified via database search (PsycINFO; CINAHL; EMBASE; ProQuest; MEDLINE). Two researchers reviewed articles for eligibility, extracted data and conducted quality appraisals. Studies were assessed for risk of bias using the NIH Quality Assessment; the CASP qualitative checklist; and the Mixed Methods Appraisal Tool. Quantitative data were summarised and described. Qualitative data were thematically analysed. A systematic narrative synthesis explored the relationship and findings within and between the included studies.

Results: Initial database search retrieved 2927 studies – 24 of those were eligible for data extraction. Later search (publications between May-2021/May-2022) retrieved 1100 papers, four of which were included in this study. BT interventions' structure and content distribution were analysed and classified according to: i) mode of interaction between digital and face-to-face components; ii) role of the digital component in the treatment; iii) mode of delivery of digital component and iv) digital materials assignment mode.

Conclusion: Based on key themes identified regarding interventions' structure and components, we propose a taxonomy for BT models. The proposed classification will assist with assessing and evaluating BT models in a subsequent study by the research team. Participants' feedback will underpin the development of a BT model for the treatment of anxiety and depression in adult cancer patients to be tested at Australian psycho-oncology services.

1:40 PM | Kyra Webb | University of Sydney

Fear of cancer recurrence experiences in ovarian cancer caregivers: A qualitative study

Aims: Fear of cancer recurrence or progression (FCR) is reported in 50% of people with ovarian cancer. Whilst research exploring patient FCR has increased, little is known about caregiver FCR. To date caregiver research has been conducted through the prism of patient conceptualisations, limiting the development of models, measures and interventions which are specific to caregivers. The aim of this study was to explore experiences of FCR in ovarian cancer caregivers.

Methods: Semi-structured telephone interviews were conducted with caregivers of people with ovarian cancer. Participants were recruited through Ovarian Cancer Australia and also completed a short online survey collecting participant and patient demographic characteristics, information about the patient's disease and caregiver levels of FCR using the Fear of Cancer Recurrence Inventory (Caregiver) (FCRI-c). Interviews explored caregiver fears, how the fears and worries were experienced and the frequency and timing of FCR. Thematic analysis was used to analyse the results.

Results: 24 caregivers (54% male) participated in an interview. Most caregivers were providing care for their partner (n = 14). Thematic analysis revealed four inter-related themes and additional sub-themes: 1) Fear and worry; 2) Liminality; 3) Hopelessness and 4) Caregiver's role as protector. An overarching theme, fear of one's family member dying underpinned each theme. The protector role was dual in nature and functioned to protect both the patient and caregiver, explaining different behaviours.

Conclusions: Aspects of FCR unique to the caregiver were identified. Caregivers are also impacted by fears and concerns of cancer recurrence or progression. In the context of ovarian cancer, caregiver FCR experiences differ conceptually from those reported by patients. Caregivers play a vital role in supporting people with ovarian cancer. Further research is critical to determine whether caregiver FCR is conceptually similar across cancer types. This research is the first step in the development of interventions tailored to caregiver needs.

2:00 PM | Sharon He | University of Sydney

Implementation of Geriatric Assessments in Cancer Care: An Umbrella Review

Background: Older adults with cancer are under-represented in clinical trials and may present with vulnerabilities and multimorbidity, making treatment decisions complex and

challenging. Geriatric assessments (GAs) can guide treatment decision-making and identify those at risk of treatment complications. However, there is uncertainty about what defines a GA in cancer care and the factors that impact on GA implementation in cancer settings. The aim of this umbrella review was to summarise and synthesise the evidence for i) what constitutes a GA in cancer care, ii) how GAs are conducted, iii) which outcomes are used to assess the efficacy of GAs and iv) how implementation of GAs in cancer settings are reported.

Methods: PsycINFO, MEDLINE, Embase, CINAHL, Cochrane Library and Web of Science databases, were searched. Eligible reviews included systematic reviews with or without meta-analyses that i) described the use/value of GA in cancer, or ii)information related to GA implementation in cancer settings. Two reviewers reviewed articles for eligibility; data was extracted, and quality appraisal was conducted. Review registration was PROSPERO:CRD42022338842.

Results: Of the 3,494 titles and abstracts screened, 128 full-text articles were reviewed, and 35 reviews were included in the umbrella review. Definitions of GA included interviews, multi-dimensional assessments to self-assessments. Most reviews reported that GAs were performed prior to treatment by patients themselves or by a range of health professionals (oncology team, physicians, nurses, and geriatricians). Reported outcomes included treatment toxicity/perioperative complications (24/35 reviews), mortality/survival (22/35), treatment modification (12/35), treatment adherence or completion (12/35) and resource-related outcomes (8/35). 8 reviews reported on the number and type of GA-based interventions. Only 5 reviews reported barriers and enablers to GA implementation and no reviews reported use of frameworks to guide GA implementation.

Conclusion” Implementation of GAs as part of standard care in Australian cancer services requires clearly defined outcomes and care pathways.

2:20PM | Adele Samra | Australia Catholic University

The influence of problematic social media on psychological wellbeing in pregnancy: Social comparisons and body dissatisfaction as a potential mechanism.

Pregnancy is an immense transition for many women and is associated with body dissatisfaction and psychological distress such as pregnancy-related anxiety, depression and disordered eating. Problematic Social Media Use (PSMU) creates abundant opportunities for women to compare themselves with other pregnant women and expose themselves to sociocultural influences which may increase body dissatisfaction and psychological distress. This study examined whether the relationship between PSMU and psychological distress (including depression, pregnancy anxiety, and disordered eating attitudes) was mediated by a tendency to make negative social comparisons and body dissatisfaction. A final sample of 225 pregnant women (Mage = 31.91 years, SD age = 4.39) recruited online, completed self-report measures related to the variables of interest. PSMU was associated with psychological distress (depression, pregnancy-related anxiety and disordered eating attitudes). A tendency for negative social media comparisons and body dissatisfaction partially mediated the relationship between PSMU and depression and

pregnancy-related anxiety and fully mediated the relationship between PSMU and disordered eating attitudes. This study highlights how sociocultural influences such as social media may increase psychological distress in pregnancy and identifies a potential pathway that may explain this relationship, (via social comparisons and body dissatisfaction). The findings of this study highlight the importance of screening for body dissatisfaction to be included in routine antenatal care for pregnant women.

Stream 2 | Clinical

10:00 AM | Alixandra Risi | University of Wollongong

Military families with young children: Understanding and supporting their post-deployment experiences

Military family research has mostly focused on the period where service members are away from their families. Yet, it is the reintegration period that has been identified by these families as the most challenging part of the deployment cycle. However, little is known about the reintegration experiences of military families with young children, and less so from families outside of the United States. Without knowing what challenges these families face during reintegration, we are not able to most effectively support them in practice and policy.

To bridge this gap, I conducted two studies with Australian Defence Force (ADF) families with young children. The first study aimed to develop a richer understanding of the post-deployment experiences of ADF families with young children. ADF service members (n=9) and their non-deployed spouses (n=38) reflected on periods of reintegration and discussed their family's adaption during this time in responses to open-ended survey prompts. Using thematic analysis, six themes representing the reintegration experiences of these families were generated from the data. Relational and parenting challenges were underscored across all themes. Overall, the data highlighted that ADF families need support post-deployment primarily to rebuild parent-child relationships and reconnect as a family.

Equipped with a better understanding of the support needed by ADF families during reintegration, my second study piloted a new intervention and examined its effectiveness for improving the quality of parent-child relationships in ADF families during reintegration. Two ADF families participated in the Coaching and Parent Emotion Support Program (CaPES). CaPES is a 12-week intervention that uses real time play coaching and integrates behavioral parent training with mindfulness and emotional regulation skills. Findings demonstrated (a) an improvement in parent-child relationship quality, mindful parenting skills, parental wellbeing and stress, parenting self-efficacy, and child internalizing and externalizing behaviors, and (b) evidence for the effectiveness of CaPES as an intervention to support and enhance outcomes for military families during reintegration.

10:20 AM | Cheryl Jialing Ho | University of Wollongong

The Early Home Learning Environment and Shared Book Reading Practices in Singapore

The learning activities, interactions, and resources that make up a child's Home Learning Environment (HLE) play a powerful role in shaping early development and later school success. While important features of the HLE in Western societies are well documented, less is known about the HLE in Asian cultures. In Singapore, children grow up in a multicultural and multilingual city, and households often include other adults in addition to the parents. To explore the early HLE and educational experience of young children in Singapore, we conducted a cross-sectional online survey of families with children aged 5- to 46- months old (N = 74), and examined its association with child language outcomes. A wide

range of learning experiences was reported within the home, with active parental involvement in children's developmental advances (e.g., day-to-day educational play and formal teaching outside of reading activities) being the richest form. Shared book reading was a common practice, which began in most households before their child was 12 months old. The general frequency of the book reading activities happening in the home was also positively associated with children's concurrent language scores, as measured by an adaptation of the MacArthur-Bates Communicative Development Inventory (MB-CDI) for Singapore. The frequency and duration of shared book reading activities with a grandparent (the second most frequently reported main caregiver) were also positively related to children's concurrent language abilities. Having access to a broad, high-quality HLE explained 61% of children's early language development after controlling for child age. Our results highlight the importance of global research on the HLE to recognise the potential contribution of both parental and non-parental household members in providing children with stimulating and diverse learning experiences in the first years of life.

10:40 AM | Silvana Kaouar | University of New South Wales

Parental Warmth and Criticism Differentiate Conduct Problem Subtypes in Young Children

Understanding the developmental psychopathology of child conduct problems (CP) has been advanced by differentiating subtypes based on levels of internalizing problems (INT) and/or callous-unemotional (CU) traits (i.e., low empathy/guilt, poor motivation, shallow/deficient affect). The current study sought to elucidate prior inconsistencies in the role of warm/positive and harsh/negative parenting subcomponents in CP by differentiating subtypes on the basis of INT and CU traits. Parents of 135 young children (M age = 3.72 years, SD = 1.29) referred to specialty clinics for the treatment of CP completed pre-treatment measures of parenting and rated their child's levels of CP, INT, and CU traits. Results of planned comparisons revealed that mothers of children with secondary CU variants (high CU/ high INT) reported less overall warmth toward their child, compared with CP-only (low CU) children. They also reported a more negative dyadic relationship characterized by feelings of anger/hostility, active avoidance and/or a desire to do harm to their child relative to primary CU variants (high CU/ low INT), and attributed fewer positive traits to their child than other CP subtypes. Mothers of both CU variants attributed fewer good and altruistic intentions towards others in their child, relative to CP-only children. Subtypes were undifferentiated on observed positive and negative parenting behaviors, indicative of a disconnect between parenting behaviors and cognitions for mothers of children high on CU traits. Findings are discussed in relation to their theoretical and practice implications, and in guiding future research.

11:00 AM | Sophie Champion | University of New South Wales

Beyond the therapy room: Why is it so hard for some carers to stop reassuring kids with OCD?

Excessively reassuring loved ones with OCD may prevent them from learning to tolerate uncertainty with negative consequences during psychotherapy. Researchers have yet to isolate the individual characteristics that predict over-reassurance in OCD caregivers in real-life scenarios. The current study sought to identify the role of caregiver characteristics of empathy, consideration of future consequences (CFC) and experiential avoidance in willingness to reassure a hypothetical child with OCD symptoms against therapeutic advice. Participants (N = 112) recruited from undergraduate and community samples completed questionnaires assessing empathy, CFC, experiential avoidance, psychopathology, and beliefs about reassurance. Then, participants' willingness to reassure the anxious child (against therapist advice) was observed during two interactive videos of simulated OCD checking and contamination scenarios. As hypothesised, multivariate regression analyses revealed a null association between experiential avoidance and reassuring, whereas the tendency to consider future consequences less and hold positive beliefs about accommodation each uniquely predicted willingness to reassure. Contrary to predictions, no association was found between empathy and reassurance willingness. A similar pattern emerged following re-analysis without multivariate outliers, with the exception that elevated depression and anxiety symptoms increased willingness to reassure against therapeutic advice, and obsessive-compulsive symptoms and empathy decreased willingness to reassure against therapeutic advice.

11:20 AM | Janice Yung | University of New South Wales

Taking Experts at Face Value? Jurors' evaluation of expert witness testimony on face identification evidence in court

With instances of crimes being captured on CCTV cameras or mobile devices increasing in recent years, the reliance on images and surveillance recordings as evidence in court to prove a person's involvement in a crime has also risen. To aid jurors in their interpretation of face identification evidence, different expert witnesses (e.g. facial examiners, super recognisers, computer algorithms, police officers) may be called upon to testify about the evidence. However it is unclear how jurors may perceive these groups in terms of their persuasiveness and whether they are sensitive to differences in the reliability and accuracy of each witness' methods for conducting face matching comparisons. This study specifically investigates jurors' perceptions of 4 groups (facial examiners, super recognisers, computer algorithms, and police officers) using the Expert Persuasion Expectancy (ExPEx) Framework. Findings suggest that when provided with a detailed report on each expert witness testimony, participants significantly differentiated witnesses on their ratings of ExPEx attributes. The way jurors integrate their knowledge of these expert witnesses and their opinions on face matching comparisons was also of interest. In particular, it was found that when provided with expert witness opinions, participants often choose to update their beliefs to align with expert witnesses, which has the risk of negatively impacting the

accuracy of their decisions. Conclusions and implications of this research will also be discussed.

11:40 AM | Erica Martin | University of Sydney

Tipsy, Trashed or Totalled? Alcohol Intoxication in the Australian Criminal Justice System

The Australian criminal justice system lacks a consistently applied and legislatively endorsed definition of alcohol intoxication. Moreover, judges are reluctant to consult psychological and medical experts when alcohol and its effects are discussed in the courtroom. Intoxication is instead framed as a common-knowledge issue, assuming that jurors and other legal actors are well equipped to resolve complex intoxication-related debates. I will discuss the findings of two studies that probe this research area. The first investigated the effect of (1) a victim's intoxication status during a crime and (2) the type of crime on mock jurors' decision-making. Mock jurors incorrectly perceived alcohol as detrimental to victim credibility at any dose. The second study aimed to uncover a systematic lay definition of dose-specific alcohol intoxication. I explored Australian adults' conceptualisation of intoxication across a range of domains including language, standard drinks, blood alcohol concentration, and symptoms. Together these studies assert the need for alcohol-related jury education and displacement of the assumption that the effects of alcohol consumption are common knowledge.

1:00 PM | Anthony Joffe | Macquarie University

Understanding emotional labour: An empirical examination of its relationship to emotion regulation and to wellbeing and burnout in Australian psychologists

Emotional labour, or the management of emotional expression in the workplace, has been identified as a predictor of poor wellbeing and burnout in various service industries. However, little is known about the construct's conceptual overlap with the seemingly parallel construct of emotion regulation, or about the role of emotional labour in predicting the wellbeing and/or burnout of psychologists who provide psychotherapy. We present the results of two studies, which seek to address these two gaps in the literature. Study 1 (N = 800) used multi-groups confirmatory factor analysis to determine the overlap between these constructs and account for the influence of method bias. The results indicated that emotional labour is an empirically distinct construct from day-to-day emotion regulation, which prior research has broadly conceptualised as a proxy measure. Study 2 (N = 113) examined the use of emotional labour strategies by psychologists who provide psychotherapy. The results indicated that psychologists use a mix of surface acting, deep acting, and natural expression, and that surface acting is a reliable predictor of adverse wellbeing and burnout. Future directions and implications for psychological practice are discussed.

1:20 PM | Edwina Keen | Macquarie University

Mental Health Literacy and Service Preferences for Somatoform Disorders amongst Australian University Students

Objective: Mental health literacy, a requisite of effective help-seeking, has seldom been explored in somatoform disorders. This study aimed to explore factors influencing recognition of somatoform disorders amongst Australian university students and their service preferences.

Method: In an online questionnaire, undergraduate psychology students (N = 203) were presented with a series of vignettes reflecting Somatic Symptom Disorder, Illness Anxiety Disorder, and Major Depression and were asked about their perception of the problem and treatment preferences. Information was collected on demographic factors, stigmatising attitudes, general mental health knowledge, and lived mental health experience.

Results: Most participants could recognise the psychological component of somatoform disorders (66.0 – 76.8%) but few correctly labelled the disorders (15.3 – 28.6%). Primary care doctors were the most frequently preferred service provider for somatoform disorders and both primary care doctors and mental health professionals were rated favourably in their capacity to provide help. Factors predicting disorder recognition and service preferences were inconsistent. Greater general mental health knowledge was associated with greater perceived helpfulness of mental health professionals for Somatic Symptom Disorder and poorer perceived helpfulness of primary care doctors for Illness Anxiety Disorder.

Conclusions: Mental health literacy for recognising somatoform disorders as a psychological disorder is relatively strong, although not surprisingly specificity of the type of disorder is low. Encouragingly, psychology-based treatment is likely to be accessed and perceived as helpful. However, further longitudinal research is needed to identify factors predicting uptake of professional services including psychotherapy interventions for distressed individuals with somatoform disorders.

1:40 PM | Kayla Greenstien | University of Sydney

Ethical considerations for the use of touch in psychedelic-assisted therapy

Adapting existing psychotherapy frameworks to include psychedelics and MDMA presents novel ethical challenges around the use of touch. In mainstream psychotherapy, the use of touch is generally avoided by practitioners due to ethical concerns around therapist-patient boundaries. In contrast, clinical trials of psychedelics and MDMA routinely employ non-sexual touch such as hand-holding as a form of support for patients who provide consent. It is hypothesised that the use of touch could provide a vital source of ‘grounding’ for patients during profound and sometimes challenging psychedelic experiences, and be essential for therapeutic outcomes. However, recent reporting on abuses tied to psychedelic and MDMA therapy, combined with a surge in research, public (and private sector) interest, and regulatory changes, call for a critical review of the use of touch. In this talk, I will summarise the history and rationale for the use of touch, (ii) to summarise the use of touch in contemporary applications where a therapist/guide and patient/client relationship exists, (iii)

to evaluate the evidence for touch as a key adjuvant in mental health treatment in this context. Recommendations and future research directions for the use of touch in psychedelics or MDMA assisted therapy are presented with the purpose of informing the development of consistent and patient-centric ethical guidelines across therapeutic applications.

2:00 PM | Nell Norman-Nott | University of New South Wales

The No Worries' Trial: Managing Emotions to Reduce Pain

Emotion dysregulation frequently co-occurs with chronic pain, which in turn leads to heightened emotional and physical suffering, prompting a recommendation for psychological treatment for chronic pain to target emotion regulation skills. The current trial addressed this need by investigating a new internet-delivered treatment incorporating emotional skills training from dialectical behavioural therapy (DBT). Using a single-case experimental design that is suited to heterogeneous populations, such as the chronic pain population, and can demonstrate efficacy with a small sample, three participants with chronic pain were recruited. Participants received four weeks of guided internet-delivered DBT skills training (iDBT-Pain intervention) which incorporated one-on-one sessions over Zoom and emotion regulation skills practice using a web app. Results revealed compelling evidence for the intervention on the primary outcome of emotion dysregulation (Tau U effect size = -0.88, $p < .001$, 95% CI [-0.8908 to -0.1516]), and for the secondary outcome of pain intensity (Tau U effect size = -0.81, $p < .001$, 95% CI [-1.000, -0.514]). Improvement was also identified on pre-and post-measures of depression, coping behaviours, sleep problems, wellbeing, and harm avoidance, indicating that the intervention may positively influence other factors related to chronic pain. Overall, the trial supports the efficacy of the intervention to improve chronic pain. This trial advances understanding of emotion-focused treatment for chronic pain and provides evidence for a viable new technological treatment. Importantly, as an internet-delivered approach, the iDBT-Pain intervention is accessible to those with restricted mobility and remote communities where there are often limited psychological services for people with chronic pain.

Stream 3 | Neuroscience

10:00 AM | Anastasia Serafimovska | Australian Catholic University

Robot vs. Human: Validating AI administered Telephone Interview for Cognitive State (TICS-M)

Dementia is one of the biggest fears for Australians over 55 years old and our second leading cause of death (Dementia Australia, 2022), with a lifetime incidence of 10% and an exponentially increasing incidence with age for those older than 60 years (Alzheimer's Association Report, 2020). Bentvelzen et al (2019) reported on the validity of an Australian version of the Telephone Interview of Cognitive State - Modified (TICS-M) and provided normative data from a representative sample of older Australians. The TICS-M is designed to be administered over the phone by a psychologist. An AI-administered version of the TICS-M could reduce testing costs/constraints (i.e. time, availability and expertise of clinicians) and provide relief and opportunity to plan ahead and improve quality of life for a large proportion of Australians. This study explores whether an Artificially Intelligent (AI) Robot can autonomously administer the TICS-M comparably to a psychologist. Approximately 100 community dwelling, English speaking, Australians aged between 60 to 80 years old participated in two 10-minute over the phone assessments, one week apart during 2022. One assessment conducted by a psychologist, the other by the AI 'robot', with both assessors blind to the results of the other and in counterbalanced order. Pearson correlation coefficients were used to measure agreement between the robot's assessment results and those of the psychologist and order effects are reported. Implications of a valid and reliable test, which is also low cost, highly scalable, telehealth delivered and autonomous, include COVID-19 risk mitigation and improved accessibility of regular screening and monitoring to populations typically underserved and under-researched, for reasons of cost, geography, limited mobility and availability of psychologists.

10:20 AM | Fang Lan | University of Sydney

Neuroimaging profile of hippocampus and its association with memory aspects in dementia

The hippocampus is critical for forming and retrieving memories and displays structural and functional complexity along its long axis. Atrophy in hippocampus is common in dementia, yet few studies have explored how differential damage along the hippocampal long axis relates to distinct patterns of episodic and semantic memory disruption in these disorders.

We conducted a retrospective study of structural brain imaging in semantic dementia (SD; n=21) and Alzheimer's disease (AD; n=24) and compared their hippocampal volume changes with 27 healthy older control participants. All participants were assessed across the main cognitive domains by a comprehensive battery of neuropsychological tests. Clinical performances of episodic memory were measured by using Addenbrooke's Cognitive Examination memory subscale and the Rey Complex Figure test. The Sydney Language Battery (SYDBAT) was used as indices of semantic memory processing. All participants underwent whole-brain 3T structural MRI. Participants' hippocampi were segmented along

their long axis into anterior, intermediate rostral, intermediate caudal, and posterior hippocampus according to Plachti et al.'s (2019) functional probability maps using SPM12.

Relative to controls, significant volume reductions were evident across hippocampal long axis bilaterally in AD, and left hippocampus in SD. In contrast, SD patients were not found to differ from controls in terms of right intermediate caudal and posterior hippocampal volumes. Within each patient group, AD patients showed a flat profile of atrophy while SD patients showed a graded profile of anterior-to-posterior atrophy bilaterally, with a stronger gradation on the left than the right. Correlational analysis revealed significant associations between episodic and semantic memory performance in AD and left hippocampal volumes, while semantic processing was associated with hippocampal long axis bilaterally in SD.

This study provides novel evidence to chart distinct hippocampal atrophy profiles in AD and SD and suggests distinct differences in how the hippocampus is targeted in these syndromes.

10:40 AM | Siobhan Shaw | University of Sydney

Exploring Anhedonia in Frontotemporal Dementia

experience pleasure and respond to rewards depends upon the integrity of frontostriatal circuits in the brain. A breakdown in these circuits leads to the inability to experience pleasure, otherwise known as anhedonia. Recent studies have demonstrated high levels of anhedonia as distinct from apathy in Frontotemporal Dementia (FTD). Given that anhedonia has been found to predict and relate to overall functional impairment in other disorders (e.g., Major Depressive Disorder) formal investigation of the relationship between anhedonia and functional impairment in FTD could provide new insights into patient management. Therefore, the objective of this study is to demonstrate the prevalence and unique neural correlates of anhedonia in FTD as well as determine the relationship between anhedonia, loss of motivation and functional impairment. A total of 164 participants took part in this study including 87 FTD patients, 34 Alzheimer's disease, and 51 healthy older Control participants. Within the FTD group, 55 cases were diagnosed with clinically probable behavioural-variant FTD and 24 presented with semantic dementia. Premorbid and current anhedonia was measured using the Snaith-Hamilton Pleasure Scale whilst loss of motivation, depression, apathy and level of functional impairment were assessed used the Cambridge Behavioural Inventory-Revised, Depression Anxiety and Stress Scale, Dimensional Apathy Scale and the Frontotemporal Dementia Functional Rating scale, respectively. Finally, voxel-based morphometry analysis was used to examine associations between anhedonia and patterns of grey matter atrophy in the brain. Relative to Controls, behavioural-variant FTD and semantic dementia patients showed a significant reduction in their ability to experience pleasure following disease onset. Voxel-based morphometry analyses revealed that greater levels of anhedonia were associated bilaterally with greater atrophy in the orbitofrontal cortex, medial prefrontal cortex, insular cortex, extending into the frontal pole. Importantly these regions were largely distinct from the neural correlates of apathy with only a small region of overlap in the right prefrontal region. Irrespective of diagnosis, greater anhedonia severity was significantly correlated with more severe motivational and functional impairment. Moreover, in bvFTD patients anhedonia severity

was found to mediate the association between motivational and functional impairment. Finally, regression analyses indicated that the increase in anhedonia from premorbid levels was more strongly predictive of functional decline than motivational impairment in bvFTD. This study provides evidence of heightened anhedonia in FTD that is linked to distinct patterns of brain atrophy. Our findings suggest that anhedonia is highly prevalent in FTD syndromes and reflects the breakdown of prefrontal regions in the brain's reward system resulting in functional impairment in bvFTD. Anhedonia has been overlooked as a clinical feature of FTD, yet the prevalence of anhedonia has serious implications for how patients with FTD experience daily life. Future studies addressing anhedonia in FTD are critical for developing targeted interventions to improve functional impairment thereby enhancing quality of life of FTD patients and their carers.

11:00 AM | Elizabeth Haris | University of New South Wales

Structural and Functional Connectivity of Amygdala Subnuclei in PTSD

Psychiatric disorders, such as post-traumatic stress disorder (PTSD), are increasingly being understood as brain circuit disorders. While neuroimaging has illustrated the importance of the amygdala in PTSD, the individual contributions of its subnuclei remain unclear. The first step in addressing this gap was to quantify brain network topology in PTSD by delineating the amygdala into three distinct subregions: superficial, basolateral, and centromedial nuclei.

Initial analyses were completed using structural scans from a 3T MRI scanner from 67 adults with PTSD and 71 healthy controls. We explored between-group network topology and within-group covariance patterns of amygdala subregions. Between-group differences did not survive multiple comparisons corrections, however, within-group differences between subnuclei for the PTSD group revealed greater covariance between bilateral basolateral/superficial nuclei and brain regions associated with social cognition and approach-avoidance learning and behaviour.

Yet, though these results demonstrate differential neural circuitry patterns of amygdala subnuclei in PTSD, they are limited to only 3 amygdala subregions able to be detailed from the low-resolution images acquired using a 3T scanner. My current work is exploring both the structural covariance and functional connectivity of all 9 amygdala subnuclei, which is possible due to the clarity of brain images that can be acquired on the 7T MRI scanner at The Florey Institute in Melbourne. Such research is necessary to gain a clearer and more detailed picture of the normative connections in the brain and to better understand the pathophysiological connections of key brain regions involved in PTSD for earlier diagnoses and more precise treatment targets.

11:20 AM | Anastasia Suraev | The Woolcock Institute of Medical Research

Acute effects of combined cannabidiol (CBD) and delta9-tetrahydrocannabinol (THC) in insomnia disorder: a randomised, placebo-controlled trial using high-density EEG

Introduction: Medical cannabis is often cited as a popular alternative to common sleep aids; however, there are limited studies using complex sleep EEG methods examining its' effects in insomnia disorder.

Methods: Twenty patients (16 female; median [IQR] age, 47 [13.8] years) with chronic insomnia (mean ISI=20.8) completed two 24-hour in-laboratory visits during which they received a single oral dose of 'CBD/THC' containing 200 mg cannabidiol (CBD) and 10 mg delta9-tetrahydrocannabinol (THC) or placebo. Co-primary outcomes were total sleep time (TST) and wake after sleep onset (WASO). Secondary outcomes included next-day neurobehavioural function and sleep microarchitecture metrics determined using overnight polysomnography with 256-channel high-density EEG.

Results: Compared to placebo, CBD/THC significantly decreased total sleep time (TST; -24.5 min, p=0.047) with no significant change to wake after sleep onset (WASO; +10.7 min, p=0.422). CBD/THC also significantly decreased time spent in REM sleep (-33.9min, p<0.001) and increased REM sleep latency (+65.6 min, p=0.008). Preliminary high-density EEG analysis revealed increased alpha activity during REM sleep overlying the central-posterior cortex (p<0.05). CBD/THC did not impair next-day (+12 h post-treatment) cognitive performance, alertness, or simulated driving performance (all p's>0.05). Eighty-five mild, non-serious, adverse events were reported (55 during CBD/THC; most common dry mouth, drowsiness, and fatigue).

Conclusions: An acute dose of 200 mg CBD and 10 mg THC reduced TST time spent in REM sleep. However, no residual next-day impairment on cognition, alertness or simulated driving performance was observed. Further research is required to determine the impact of chronic cannabinoid dosing on REM sleep and other objective sleep outcomes in insomnia disorder.

1:00 PM | Brandon Richards | Macquarie University

Investigating the properties and behavioural roles of RXFP3+ zona incerta/lateral hypothalamus neurons

The relaxin-3/RXFP3 neuropeptide-receptor system primarily regulates behavioural arousal via ascending relaxin-3 projections from the pontine nucleus incertus. We recently identified a population of RXFP3+ cells in the zona incerta (ZI) and the lateral hypothalamus (LH) of unknown function. To examine their efferent connectivity and neurochemical identity, A Cre-dependent anterograde tracer was injected into the LH/ZI of RXFP3-Cre mice, and fluorescent immunohistochemistry was performed for select neurochemical markers, respectively. RXFP3+ LH/ZI cells were not a subset of orexin, melanin-concentrating hormone, or cocaine and amphetamine-regulated transcript expressing cells but putatively synapsed with LH orexin neurons and ZI A13 cells. Strong efferents were observed across the hypothalamus, periaqueductal gray, nucleus reuniens, and lateral habenula. These

results suggested that RXFP3+ LH/ZI cells were likely involved in context-dependent fear expression and behavioural arousal. To explore this, we chemogenetically activated these cells during behaviour using an excitatory DREADD, hM3D(Gq). One day after auditory fear conditioning, cells were activated during extinction in the conditioning context or a novel context, and context-dependent fear expression was assessed. We observed decreased conditioned stimulus-evoked freezing in a novel context only and transient jumping behaviour in a subset of mice irrespective of context. Additionally, activating these cells during an open-field test revealed increased locomotor activity, rearing, and centre zone duration. Immunohistochemical Fos analysis throughout the brain revealed increased Fos expression in arousal- and defensive behaviour-related areas after chemogenetic activation. Additional studies are necessary to determine if increased locomotion and jumping upon ensemble activation reflect heightened stress or an increased exploratory drive. Furthermore, different subpopulations of RXFP3+ cells may have contributed to different behaviours upon activation of RXFP3+ LH/ZI cells which also warrants further investigation. In summary, our study provides an initial account of the connectivity and function of RXFP3+ LH/ZI cells, implicating the population in context-dependent fear expression and arousal.

1:20 PM | David Cohen | University of New South Wales

Second-Order Conditioning Involves Formation of Competing Danger and Safety Associations

Second-order fear conditioning in rats has been used to study the substrates of learning and memory in the mammalian brain. A standard protocol consists of three stages. In stage 1, rats are exposed to pairings of an initially innocuous stimulus, S1 (e.g., a tone), with an innately aversive unconditioned stimulus (US, e.g., foot shock; first-order conditioning of S1). In stage 2, rats are exposed to pairings of another initially innocuous stimulus, S2 (e.g., a light), with the already-conditioned S1 (second-order conditioning of S2). Finally, in stage 3, rats exhibit fear (freezing) when tested with presentations of S2 alone. Control experiments performed in our laboratory have demonstrated that fear to S2 is associatively mediated i.e., it is contingent on S2 and S1 having been paired with the relevant stimuli across each stage of training. However, we hypothesized that during S2-S1 pairings, S2 encodes two conflicting associations: specifically, S2 signals the learned source of danger, S1 (S2-danger) whilst simultaneously signaling safety as the US never occurs when it is present (S2- safety). The present study tested this hypothesis by exploiting the fact that safety associations are often encoded in a specific region of the medial prefrontal cortex: the infralimbic cortex (IL). Specifically, we examined whether silencing neuronal activity in the IL (via infusions of the GABA agonist, muscimol) would enhance second-order conditioning by preventing encoding/expression of the S2-safety association. The results showed that silencing the IL during S2-S1 pairings in stage 2 or presentations of S2 in stage 3 resulted in enhanced freezing to S2; and this was conditional on the absence of the US in stage 2. These findings are taken to support our hypothesis that two contradictory associations are encoded concurrently during second-order conditioning, and discussed with respect to theories of second-order conditioning.

1:40 PM | Jodie Pestana | University of New South Wales

Motherhood alters menstrual-related changes in anxiety symptoms: A translational approach in female rats and women

Introduction:

Fluctuating sex hormones across the estrous/menstrual cycle in female rats and women are associated with changes in anxiety, which could contribute to the pathology and maintenance of anxiety disorders. Pregnancy causes long-term changes in sex hormonal fluctuations, yet extant research on cyclic-related changes in anxiety has focused on reproductively inexperienced females. This study employed a cross-species approach to assess whether the impact of estrous/menstrual cycle on anxiety differs pre- versus post-motherhood.

Methods: Naturally cycling virgin rats (n=14) and mother rats (n=18) were tested twice on the light-dark box, open field test, and elevated plus maze to measure anxiety-like behaviour; during metestrus (low sex hormones) and proestrus (high sex hormones). In addition, a human community sample of naturally cycling non-mothers (n=35) and mothers (n=28) completed the Patient Health Questionnaire-4 at three timepoints, during the early-follicular phase (low sex hormones), ovulation (high sex hormones), and mid-luteal phase (high sex hormones).

Results: Replicating past research, virgin rats showed higher anxiety-like behaviour during metestrus versus proestrus (ps < .05). In contrast, mother rats showed similar anxiety-like behaviour irrespective of estrous phase (ps > .05). Conceptually consistent findings were observed in humans. Replicating past research in humans, non-mothers reported higher anxiety and depression during the early-follicular phase compared to other menstrual phases (ps < .05). In contrast, mothers reported similar anxiety and depression irrespective of menstrual phase (ps > .05).

Conclusions: Changes in anxiety coincident with cycling hormones is an evolutionarily conserved feature of the estrous/menstrual cycle in rats and women, which may be mitigated post-motherhood in both species. These findings highlight the importance of not only considering menstrual cycle, but also reproductive status, in studies on anxiety in females.

2:00 PM | Connie Badolato | University of Sydney

CBD dose-dependently lowers alcohol intake in mice: Exploration of receptor mechanisms

BACKGROUND: Binge drinking is a risky pattern of alcohol intake that is a major predictor of alcohol use disorder (AUD). Current AUD medications have limited efficacy, side-effects and poor patient compliance. More effective, targeted therapeutics are needed. Cannabidiol (CBD), a non-intoxicating component of cannabis, has emerged as a potential candidate. Although a handful of preclinical studies reported improvements on alcohol-related measures, the mechanisms driving these effects have not been comprehensively

investigated. CBD is a 5-HT1AR and PPARɣ agonist, and CXCR4 and NPSR antagonist. These actions may contribute to CBD effects on alcohol intake.

METHODS: Using a within-subjects design in the drinking-in-the-dark mouse model of binge-drinking, the present research aimed to confirm a reduction of alcohol consumption with acute CBD (30, 60, 120 mg/kg i.p.), locomotor effects of these doses were also assessed in the open field. The development of tolerance was examined in a between-subjects, sub-chronic CBD (120 mg/kg i.p.) procedure across seven consecutive days. Finally, potential receptor mechanisms were examined by administrating receptor antagonists prior to, or in combination with, CBD.

RESULTS: CBD dose-dependently suppressed binge-like drinking, the effect was not driven by locomotor impairments, and was maintained across seven days of repeated treatment. The reduction in alcohol drinking by CBD was not blocked by a 5-HT1AR antagonist (WAY100635) or PPARɣ antagonist (GW9662). Coadministration of subthreshold doses of CBD and a CXCR4 antagonist (AMD3100) failed to indicate CBD was acting at this receptor. Coadministration of subthreshold doses of CBD and a NPSR antagonist (SHA68) reduced alcohol intake, potentially implicating antagonism of NPSR in the effect of CBD on drinking.

CONCLUSION: CBD presents as a promising treatment for AUD. Establishing how CBD lowers voluntary alcohol consumption may lead to the development of novel therapeutics to promote the reduction of disordered alcohol intake.

2:20 PM | Rhianne Scicluna | University of Sydney

Cannabidiol and opioids…Not what weed expect

Opioids remain the most common treatment for pain management. However, the development of tolerance to the analgesic effects of opioids is a significant limitation to long term efficacy and a key contributor to the development of physical dependence and an opioid use disorder. As a result, there has been an emerging interest in the use of medicinal cannabis alongside opioids to enhance the analgesic efficacy of opioids. In fact, nearly one quarter of people using opioids for chronic non-cancer pain report using medicinal cannabis. In this research, we specifically examine the efficacy of one part of the cannabis plant, cannabidiol (CBD), for the prevention of tolerance to the analgesic effects of opioids. To examine opioid tolerance, we administered a consistent dose of oxycodone or morphine, twice daily over 5 days, followed by tests of thermal pain sensation. CBD was administered prior to each opioid injection, excluding test day. Unexpectedly, CBD co-administration accelerated the development of tolerance to the analgesic effects of oxycodone but had no effect on the development of tolerance to morphine. CBD is known to inhibit enzymes which are involved in the metabolism of oxycodone, but not morphine. Therefore, one possibility is that CBD acutely increased or extended the concentration of oxycodone in the blood and brain, over the 4 drug administration days, exacerbating the development of tolerance to the analgesic effects of oxycodone. We are currently conducting pharmacokinetic studies to examine the interaction between CBD and oxycodone and genetic studies to examine the effect of CBD on mu-opioid receptor expression in mice with tolerance to oxycodone or morphine. These data suggest there could be some dangers associated with combing CBD, which is now legalised in most countries, and oxycodone, the most prescribed opioid.

Stream 4 | Experimental

10:00 AM | Augustine Nguyen | University of Newcastle

Does allowing for changes of mind influence initial responses?

Evidence accumulation models (EAMs) have become the dominant theoretical framework for rapid decision-making, and while many theoretically distinct variants exist, comparisons have proved challenging due to strong mimicry in their predictions about choice response time data. One solution to reduce mimicry is constraining these models with double responses, which are a second response that is made after the initial response. However, instructing participants that they are allowed to change their mind could influence their strategy for initial responding, meaning that explicit double responding paradigms may not generalise to standard paradigms. Here, we provide a validation of explicit double responding paradigms, by assessing whether participants' initial decisions – as measured by diffusion model parameters – differ based on whether or not they were instructed that they could change their response after their initial response. Across two experiments, our results consistently indicate that allowing for changes of mind does not influence initial responses, with Bayesian analyses providing at least moderate evidence in favour of the null in all cases. Our findings suggest that explicit double responding paradigms should generalise to standard paradigms, validating the use of explicit double responding in future rapid decision-making studies

10:20 AM | David Ng | University of New South Wales

Is Illusory Causation a Failure to Learn Correctly, or a Failure to Correct Mislearning?

Illusory causation is a phenomenon in which people mistakenly perceive a causal relationship between a cue and outcome, even though there is no contingency between them (i.e. the probability of the outcome is the same in the presence and the absence of the cue). This phenomenon is a common in-lab analogue of how people develop superstitious beliefs or endorse pseudomedicines in the real world. Acquisition models frame illusory causation as an association that is initially acquired rapidly. Following this initial rise, acquisition models predict either a maintenance of this illusion, or that it eventually normalises over extended training (i.e. associative strength returns to zero). However, studies of illusory causation have not reliably demonstrated either trajectory in their results. We tested acquisition accounts through experiments that use multiple test phases and a pre-test in order to accurately track the trajectory of causal illusions over training. Our findings imply that causal illusions are not actually developed through experiencing training trials in illusory causation paradigms. Rather, the causal illusions that experimenters observe are actually pre-existing prior beliefs on task onset that fail to correct through experience. I will discuss the role of prior beliefs in an alternative account of the illusory causation phenomenon.

10:40 AM | Hasibe Kahraman | Macquarie University

Cross-Language Morphological Transfer in Similar-Script Bilinguals

The current study explored cross-language transfer mechanisms using masked morphological translation priming paradigm. We created an experimental setting that constrained orthographic and semantic influences on cross-language morphological priming effects so that pre-lexical morphemic activation processes could be clearly evidenced. Highly proficient Turkish (first language; L1) - English (second language; L2) bilinguals performed a lexical decision task in a masked nonword priming paradigm where L2 English stem targets (FARM) were primed by affixed L1 nonwords (tarımca [farmity]), non-affixed L1 nonwords (tarımkı [farmald]), and unrelated L1 nonwords (e.g., dosyacak [fileity]). Results provided evidence for dynamic cross-language morphological transfer in same-script bilinguals which was modulated by individual differences in age of L2 acquisition. Enhanced cross-language morphological transfer effects were evidenced in bilinguals with an earlier age of L2 acquisition. A tentative theoretical framework of morphological processing in bilinguals is proposed.

11:00 AM | Isabelle Kaiko | University of Sydney

Getting stuck daydreaming: Uncovering the relationship between spontaneous thought and cognitive flexibility in anxiety.

Aim: High levels of anxiety have been suggested to result in distinct changes in cognition, including reduced cognitive flexibility and repetitive, negative thought profiles. Empirical research bridging the domains of cognitive flexibility and negative thought profiles within high anxiety populations is lacking. This study aimed to investigate the role of cognitive flexibility in these distinct changes in thought patterns of anxiety.

Method: Participants comprised university students ranging from 18-32 years old (N=49). Participants completed validated questionnaires to assess anxiety (Spielberger Trait Anxiety Inventory), worry (Penn State Worry Questionnaire), depression (Beck Depression Inventory), cognitive flexibility (Cognitive Flexibility Inventory), and spontaneous thinking profiles (Four Factor Imagination Scale). In addition, participants completed experimental tasks indexing sustained attention, divergent thinking, and spontaneous cognition. Probes throughout the session were also taken to give an index of total mind wandering for each participant.

Results: Spearman correlations revealed a significant association between increased levels of trait anxiety and decreased cognitive flexibility. Higher levels of trait anxiety were also found to relate to an increased propensity for mind wandering. Looking at the content of mind wandering suggested that these types of spontaneous cognition were negative and were associated with memory-related processing, scene construction and mental imagery.

Conclusion: Cognitive flexibility in anxiety is often overlooked, though, this study provides a comprehensive investigation of flexibility and how it related to symptoms of anxiety. Further, these findings highlight the role that cognitive flexibility could play in therapeutic interventions of anxiety.



UNSW SYDNEY

11:20 AM | Laiton Hedley | University of Newcastle

Investigating the Performance and Behaviour of Human-Machine Teams and Human-Human Teams under Collaborative and Competitive conditions

With Artificial Intelligence taking on the roles and responsibilities of full-fledged team members there is a dire need to assess the ability of these 'Human-Machine' teams and compare them to Human-Human teams. Humans are influenced by the social context of the teaming environment and will adapt their behaviour accordingly if they are to compete or collaborate with another person. As for Human-Machine teams, how their behaviour is influenced by the teaming environment and the impact of this behaviour on performance remains unclear. Furthermore, the additional strain of teamwork (such as anticipating and integrating co-actor behaviour) can come at a cost to the team's performance or rather hinder performance efficiency. Global performance measures alone cannot capture the cost of teamwork nor explore the behaviours that lead to the success or failure of teams. We utilised a novel design to explore the differences in the performance efficiency and behaviour of Human-Human teams and Human-Machine teams. Performance in both Team types indicated teamwork came at a cost in efficiency, but the cost was far less for Human-Human teams under a Collaborative teaming environment. When exploring the behavioural patterns, we found Collaboration for Human-Human teams led to a spatial division strategy and that behaviour was a significant predictor of performance efficiency. The spatial division strategy was advantageous as human partners could ignore teammate behaviour and focus their cognitive resources on the main task. The joint analysis of performance efficiency and behavioural patterns provided a better insight into the way humans work alongside human and non-human co-actors. Such analysis can further inform theories regarding the ways humans interpret the actions of other co-actors – humans and AI - and incorporate this knowledge to drive their own actions.

11:40 AM | Lawrence Chung | University of New South Wales

Neurophysiological Evidence of Corollary Discharge Dysfunction in Inner Speech in Schizophrenia

Background: Prominent neurocognitive models suggest that auditory verbal hallucinations (AVHs) in schizophrenia arise from failure of corollary discharge mechanisms to correctly suppress self-initiated inner speech. Using a novel electroencephalographic (EEG) paradigm, we tested this long-held notion in patients with schizophrenia.

Methods: Hallucinating (n=52) and non-hallucinating (n=45) patients with schizophrenia, along with matched healthy controls (n=43), were asked to imagine a single phoneme while, precisely at the same time, to listen to the same (match) or a different auditory probe (mismatch) through the headphones. A passive-listening condition was also presented. The amplitude of the auditory-evoked potential (AEP) component N1 was examined.

Results: Healthy controls showed a smaller N1 amplitude in the match condition compared to the mismatch and passive conditions, replicating previous results of N1-suppression to inner speech. Critically, hallucinating patients showed a larger N1 amplitude in the match

condition compared to the other conditions. Non-hallucinating patients showed a smaller N1 amplitude in the mismatch condition compared to the other conditions.

Discussion: The results indicated that cortical suppression of inner speech in schizophrenia was disrupted. Intriguingly, the differential results in the patient groups suggest specificity of inner speech suppression deficits with AVHs. This study provides evidence in support of atypical inner speech monitoring in schizophrenia.

1:00 PM | Omid Ghasemi | Macquarie University

The impact of training on logic-based and belief-based reasoning

Are people able to successfully evaluate logic intuitively, without engaging in deliberative thinking? Recent research has revealed that when individuals are asked to simply evaluate the believability of deductively valid or invalid arguments, they often endorse valid arguments at higher rates than invalid ones. This effect of validity on belief judgments – the "logic-belief effect" – is considered to be evidence of intuitive logic or logical intuitions. However, a recent study challenged the intuitive logic interpretation by demonstrating that commonly drawn conclusions to invalid arguments, such as affirmation of the consequent, interfere with contrasting belief judgments in the same way as valid logical structures do, and hence, the logic-belief effect may have nothing to do with evaluating logic itself. Instead, this finding suggests that a simple heuristic that relies on the matching of constituent propositions leads to such interference. To further test this matching heuristic account, across two experiments (N = 332), we examined whether training in logic would selectively reduce the endorsement of invalid arguments under logic instructions whilst maintaining the impact of invalid inferences on belief judgments, where a matching cue could drive responses. We instructed participants to evaluate the conclusions of a series of logical and pseudo-logical arguments based on logic or belief, before and after a logic training block. The results showed that whilst both judgment types were impacted by both logical and pseudo-logical structures before training, after training the effect of the latter was indeed minimized in logic judgments but not belief judgments. The results largely support the matching heuristic account, whereby simple considerations of proposition-matching rather than logic assessment underly previous evidence for intuitive logic.

1:20 PM | Sophia Shatek | University of Sydney

How do you know it's alive? Exploring correlates of categorisation behaviour under time pressure

Previous research by Goldberg and Thompson-Schill (2009) has shown that, like children, adults under time pressure tend to mistake plants and moving natural things (like clouds) as alive. These authors propose that this tendency is a remnant from the childhood tendency to animistic thinking, revealed when access to top-down inhibition is absent under time pressure. However, Goldberg and Thompson-Schill's (2009) stimulus set has some peculiarities; for example, more than half of the words referring to plants refer to specific flower genii (e.g., petunia, poinsettia). In the current series of behavioural experiments, we first replicate Goldberg and Thompson-Schill's (2009) findings, and then investigate a series

of potential factors that might explain the observed errors for moving natural things and plants using their original stimulus set. We found that the plant stimuli are difficult to visualise and are less familiar. Patterns of movement also varied substantially across categories of stimuli. Recall of the words was remarkably similar across all experiments, revealing that plants and moving natural things are more memorable regardless of the task. Overall, we find several factors, including familiarity, ease of visualisation, and characteristics of an objects' movement, that may explain errors in categorisation under time pressure.

1:40 PM | Veronika Kosourikhina | Macquarie University

Reasoning when beliefs and logic clash: role of inhibitory control and learned skills, and broader issues in measuring conflict detection

The ability to detect conflict between multiple intuitive responses is thought to be critical to engaging analytical reasoning processes. Understanding how conflict between intuitive responses is monitored is a necessary step towards understanding when and how people are likely to engage in more effortful forms of reasoning and when they are likely to fall prey to biases. Theory suggests that conflict detection should be associated with better inhibitory control, and with learned skills and knowledge (mindware) that affect quality and speed of intuitive reasoning processes. Across three studies, we investigated whether inhibitory control and mindware predict accuracy and conflict detection on syllogistic reasoning problems. We found that we could replicate the typical differences in accuracy, reaction time, and response confidence between items with and without belief-logic conflict, but neither inhibitory control nor relevant mindware were reliable predictors of accuracy or conflict detection. While there are overall group differences, individual-level conflict detection measurements are much noisier and so are not suitable for individual differences studies. This contributes to prior work demonstrating the conflict detection is less efficient than initially claimed. Further work on establishing methods of conflict detection measurement is needed.

2:00 PM | Wendy Higgins | Macquarie University

Perspectives on measurability in the psychological sciences: possibility, progress, and phantasm

Creating a measuring instrument of anything and establishing that it is a good measuring instrument of that thing, is difficult. Creating and evaluating measuring instruments for psychological attributes is extremely difficult. In this talk, I use a case study of the Reading the Mind in the Eyes test (RMET), a measure of social cognition widely used in autism and schizophrenia research, to highlight current challenges with measurement in the psychological sciences. I will present findings from a scoping review of the empirical literature that uses this measure and argue that is indicative of a lack of meaningful engagement with measurement validity. I will then consider broader questions related to current measurement validation practices in the psychological sciences and the measurability of psychological attributes.

2:20 PM | Lauren Stavropoulos | University of New South Wales

Imagery Rescripting for Worry Images: A Preliminary Experimental Investigation

Background: Mental images of feared events are shown to be overactive and intrusive in generalised anxiety disorder (GAD). Imaginal exposure for GAD involves systematic exposure to mental images to induce habituation. By contrast, imagery rescripting involves integration of positive or neutral imagery and corrective information into images to facilitate emotional processing, reduce imagery intrusions, and re-structure underlying schema. Yet only one known study has applied the technique to treatment of worry.

Methods: Participants recruited through MTurk (N=365), 28% above the clinical cutoff for GAD, completed self-reports of trait worry and GAD symptoms, identified their major worry, and wrote the script of a worst-case scenario mental image. Participants were randomised to re-writing the same script (exposure), or writing scripts of either one or three positive alternative images (rescripting conditions).

Results: In preliminary analyses, participants' level of trait worry negatively predicted their ratings of worry images, including valence and ability to cope, and positively predicted distress, anticipated cost, and belief in their negative meaning. In experimental analyses, linear mixed-effects models revealed that self-rated anxious response and cognitive appraisal of the threat was significantly lower among participants allocated to rescripting relative to exposure conditions. There was no effect of rescripting type.

Conclusions: This preliminary investigation demonstrated the potential impact of a future-oriented imagery rescripting task on anxiety and cognitive biases associated with real worries in an unselected sample. Results may contribute to the development of imagery rescripting interventions for GAD.

Data Blitz

3:30 PM | Caitlin Tedesco | University of New South Wales

Neuropeptide Y neurons in the central amygdala and the regulation of feeding following bariatric surgery

The prevalence of obesity has risen dramatically in recent decades, representing a serious public health concern. Currently, the treatments displaying the greatest long-term efficacy are bariatric surgeries such as the vertical sleeve gastrectomy (VSG). VSG produces sustained reductions in body weight and adiposity by reducing food intake. However, it remains unclear how VSG reduces feeding, as evidence suggests this effect is not due to any kind of physical restriction on the amount of food consumed. Instead, it has been suggested that this effect may be explained by alterations in neuronal pathways involved in the regulation of feeding. As a potential explanation for this reduced feeding, we investigated the role of central amygdala (CeA) neuropeptide Y (NPY) neurons in the regulation of food intake post-VSG. We utilised Designer Receptors Exclusively Activated by Designer Drugs (DREADD) to activate CeA NPY neurons in both non-obese mice and obese mice following a VSG or sham surgery. Activation of CeA NPY neurons increased food consumption in all groups, thus confirming that these neurons regulate feeding. No differences in feeding were observed between VSG and sham mice following activation of CeA NPY neurons, suggesting that surgery does not alter responsiveness to artificial activation of these neurons. Expression of a fluorescently labelled virus was also used to map the anatomical connections of these neurons, enabling identification of projections to various brain regions implicated in feeding and reward processes. Further research is required to assess whether VSG is associated with changes in the functioning of CeA NPY neurons. This may provide insight into how VSG regulates feeding and ultimately contribute to development of effective non-surgical treatments for obesity.

3:35 PM | Cassandra Ma | University of New South Wales

Infralimbic but not the prelimbic cortex mediates cued punishment expression and fear expression to the cue in a conditioned punishment task

Aversive events in our environment shape our behaviours and how we interact around them. Punished behaviours involve performing an action that delivers an aversive event, and learning this contingency allows us to avoid aversions whilst continuing to approach and pursue appetitive events that are more desirable. Yet there are instances where our behaviours do not align with events or outcomes that are desirable or preferred, and the underpinnings of why these inappropriate behaviours are performed despite the aversive events are poorly understood. The prelimbic (PL) and infralimbic (IL) cortices of the prefrontal cortex (PFC) have previously been implicated in aversive fear learning and memory but not in primary punishment choice. Here, we infused GABA (Y-aminobutyric acid) agonist, muscimol, into the PL and IL in rats and measured their expression on a conditioned or secondary punishment task. Rats were trained to press two available but separate levers (i.e. left and right) for pellet rewards. Their responding suppressed on one lever when it earned a conditioned stimulus (CS+) that was paired with a footshock, whilst continuing to

press the other lever that earned a neutral conditioned stimulus (CS-) that was not paired with a footshock. Inactivating the IL but not the PL increased responding on the punished lever after the animals had already learned the punishment contingency. Suppressed responding to both levers during presentations of the aversive CS+ was also abolished following inactivation of the IL but not the PL. These results suggest there is an effect of cued punishment expression that is distinct from non-cued punishment that is mediated by the IL, which is also implicated in conditioned fear expression to the said cue.

3:40 PM | Isobel Williams | University of New South Wales

Can Sodium Butyrate be used to treat deficits associated with perinatal methadone exposure in female and male rat pups?

The global opioid epidemic has dramatically increased the number of children with prenatal opioid exposure (POE). The underlying effects of POE are poorly understood, but are linked to a range of central nervous and enteric system issues such as neuroinflammation, peripheral inflammation and gut dysbiosis. Sodium butyrate (NaB) is a short-chain fatty acid that is anti-inflammatory and enhances the gut microbiome. This study aimed to assess whether NaB treatment could reverse the gut, brain and behavioral deficits associated with POE.

Pregnant rat dams were treated with methadone (9/mg/kg/day) and NaB (3% in drinking water), from gestational day ten until postnatal day 17. The offspring were then assessed for changes in behaviour and cognition across development and into adulthood. Fecal samples were collected from dams and pups at four timepoints and processed using 16S ribosomal sequencing. Pup's serum and brain tissue were collected at two timepoints for analysis of peripheral and CNS inflammation.

Across juvenile development, methadone increased anxiety-like behaviour in the open-field test and in adulthood impaired performance on measures of attentional processing and working memory. Treatment of dams with NaB reversed these methadone-induced deficits in offspring, ameliorating attentional and working memory deficits. Methadone alone decreased abundance of beneficial bacteria and increased pups' levels of bacteria linked to obesity and inflammation; effects ameliorated with concurrent NaB treatment. Thus, treatment with NaB across the perinatal period reversed the majority of methadone-induced behavioral deficits, and of methadone-induced gut dysbiosis. Analysis of neural and peripheral inflammation markers is ongoing.

Together these results highlight the link between gut integrity and cognition in animal models of POE. Furthermore, it indicates that early treatment with NaB could significantly improve the outcomes of children born with POE.