



## **Sydney Postgraduate Psychology Conference**

Presented by APS, SUPRA, and the Faculty of Science

**Abstracts**



THE UNIVERSITY OF  
**SYDNEY**

## Stream A: Session 1

Name	Title	Abstract
<b>Khandis Blake</b> <i>University of Sydney</i>	Towards an accurate and cost-effective measure of women's fertility	<p>Experts are divided on whether women's cognition and behaviour differs between fertile and non-fertile phases of the menstrual cycle. One of the biggest criticisms of this literature concerns the use of indirect, imprecise, and flexible methodologies between studies to characterize women's fertility. To resolve this problem, we provide a data-driven method of best practices for characterizing women's fertile phase. We compared the accuracy of self-reported methods and counting procedures (i.e., the forward- and backward-counting methods) in predicting ovulation using data from eighty women whose ovulation was determined using luteinizing hormone tests. Results revealed that no counting method was associated with actual ovulation with greater than 50% accuracy. This result remained when using a lenient window for predicting ovulation, across alternative estimators of the onset of the next cycle, and when removing outliers to increase the homogeneity of the sample. Combining counting methods with a relatively inexpensive test of luteinizing hormone predicted fertility with accuracy greater than 95%. We therefore provide a cost-effective, pragmatic, and standardized protocol that will allow researchers to test whether fertility effects exist or not.</p>
<b>Alice Norton</b> <i>University of Sydney</i>	Imagery rescripting in social anxiety disorder	<p>Imagery rescripting (IR) is a transdiagnostic intervention aiming to alter negative meanings associated with distressing memories. The current study aimed to extend upon demonstrated benefits of IR for social anxiety disorder (SAD). SAD individuals (N = 6) were randomly allocated to IR, cognitive restructuring (CR) or Control conditions, and completed two speech tasks before and after the intervention. Participants completed measures of symptomatology and state variables in relation to the intervention and speech tasks. Results support the benefits of IR for SAD, with both interventions yielding equivalently large symptom reductions. However, IR and CR appeared to operate via differing mechanisms.</p>
<b>Georgette Fleming</b> <i>University of New South Wales</i>	Parent-Child Interaction Therapy for childhood disruptive behaviour disorders	<p>Childhood disruptive behaviour disorders are highly prevalent and confer sizable risk for later psychosocial dysfunction. Early intervention is critical, but widespread implementation of effective treatments is hindered by barriers affecting the availability, accessibility, and acceptability of these treatments. For example, Parent-Child Interaction Therapy (PCIT) is a parent management training intervention focused on improving the parent-child relationship and use of consistent and effective discipline strategies. However, a significant research-to-practice gap exists, with limited implementation of PCIT in community settings. The current study aims to evaluate the efficacy and acceptability of an internet-delivered version of PCIT that utilises teleconferencing technology to deliver a real-time, face-to-face intervention, with the ultimate aim of reducing this research-to-practice gap.</p>
<b>Claire McAulay</b> <i>University of Sydney</i>	Eating disorders in bipolar disorder	<p>Bipolar disorder confers greater risk of obesity and cardiovascular disease than for the general population. While the causes for this are manifold, little research has investigated the psychological contributions of weight gain, despite the importance of improving and maintaining physical health in bipolar disorder. Eating disorders commonly co-occur with bipolar, but underlying psychological processes have received little attention. The present study aims to investigate the nature of eating-disordered cognitions and behaviours in a population with bipolar disorder through an online questionnaire. This research will inform the feasibility of and objectives for treating this comorbid population for subthreshold eating disorder symptomatology.</p>
<b>Lauren Harvey</b> <i>University of Sydney</i>	Dialectical Behavioural Therapy for the treatment of emotion dysregulation in adolescents	<p>The ability to regulate one's emotions adaptively has been recognized as a fundamental factor in promoting healthy development across the lifespan and has been linked to greater resilience, higher academic achievement, higher quality friendships and more prosocial behaviour. It is recognized that there is an increased vulnerability to emotion dysregulation during adolescence as a result of normal developmental processes. Recently, evidence has accumulated which demonstrates the effectiveness of Dialectical Behavioural Therapy (DBT) in treating emotion dysregulation amongst adult clinical samples and emerging evidence that this may be effective in some adolescent clinical samples. The current presentation will propose a framework based on DBT to be implemented within school settings as a universal prevention program.</p>

## Stream B: Session 1

Name	Title	Abstract
<b>Matthew Terides</b> <i>Macquarie University</i>	Internet-delivered Cognitive-Behavioural Therapy for depression and anxiety	There is much evidence that iCBT (internet-delivered Cognitive-Behavioural Therapy) is effective for treating symptoms of depression and anxiety. This study explores the frequency of CBT skills usage as a mechanism of clinical change. A 2-group (active treatment vs. waitlist control) randomised controlled trial was conducted. Participants were adults with clinically significant symptoms of depression, anxiety, or both, who went through an 8-week iCBT course. The active treatment group reported significantly lower symptom scores compared with the control group. Greater engagement with CBT skills was found to mediate this difference. iCBT increases the frequency of adaptive behaviours, which may be an important mechanism of change for treating anxiety and depression over the internet.
<b>Andrew Wowk</b> <i>University of New South Wales</i>	Emotions and motivations surrounding prosocial behaviour	The interplay between emotions and motivations for prosocial behaviour is not well understood. The proposed research described in this talk distinguishes between three motivations for prosocial behaviour: personal, social-relational, and moral. Further, I posit that three families of emotions – non-social, non-moral social and moral social – are affective precursors to the aforementioned motivations (e.g., moral social emotions give rise to moral motivations). This alignment is relevant not only in the immediate context of performing a prosocial behaviour, but also in anticipation of and upon reflection of it.
<b>Jennifer Read</b> <i>University of Sydney</i>	Preventing depression in older adults with multimorbidity	Preventing Depression in Older Adults with Multimorbidity Multimorbidity is associated with an increased risk for depression. Given the high prevalence of multimorbidity in older adults, looking for ways to prevent depression in this age group is warranted. This study aims to investigate the effectiveness iCBT as a preventative intervention for depression in older adults with multimorbidity, through a RCT which follows participants over a two year period. Two of the five waves planned have been run, involving 112 participants. Preliminary results show good completion rates but as the trial is still only in the early stages, as expected, there are no significant results so far.
<b>Natalie Goulter</b> <i>University of New South Wales</i>	The development of secondary psychopathy through exposure to trauma	A subpopulation of individuals present with comorbid psychopathology—anxiety, depression, and substance disorders—in combination with personality features indicative of poorly developed conscience (i.e., psychopathic traits). What distinguishes this subpopulation, termed secondary psychopathy, from other antisocial-psychopathic individuals is their marked histories of early life adversity. Theory suggests that negative affectivity (e.g., anxiety) is the mechanism through which trauma contributes to the development of secondary psychopathy (Karpman, 1948). Using longitudinal data from the Pittsburgh Girls Study, the present study aimed to determine whether secondary variants can be identified among girls and whether they show poor physical health outcomes that have been linked to traumatic exposure (i.e., high body mass index (BMI), asthma, diabetes, cardiovascular problems). Trajectories of psychopathic traits and anxiety from ages seven to 15 years were established using the 3-Step Approach (Vermunt, 2010). Classes that mapped on to high-anxious/secondary and low-anxious/primary variants were validated against theoretically-meaningful correlates. Secondary variants reported significantly greater exposure to harsh parental punishment and high levels of depression at age 7, they were also distinguished by high levels of borderline traits and substance abuse at 17 years, compared to primary variants and nonpsychopathic girls.
<b>Shanta Dey</b> <i>University of New South Wales</i>	Sources of decision-making difficulties in depressed individuals	While there is considerable literature on the decision-making difficulties depressed individuals face, there has been little research on the source of these difficulties. The present study examined whether high dysphoric participants struggle more with decision-making when participants adopt an abstract-thinking style as compared to when they adopt a concrete-thinking style. The findings were that participants who engaged in abstract-thinking, compared to concrete-thinking, reported greater levels of stress and indecision during the decision-making process, and took longer to make a decision. The findings of this study has scope to inform the clinical management of depression by helping to clarify how abstract rumination contributes to decision-making deficits, and how concrete rumination may help reverse these deficits.

### Stream C: Session 1

Name	Title	Abstract
<b>Aleksandra Jaskolowska</b> <i>Macquarie University</i>	Self-humanizing in human and non-human traits	Self-humanizing effect has been described as the tendency to view oneself as more essentially human than the average person (Haslam & Bain, 2007). Based upon analyses of comparative judgments, researchers have claimed that people attribute more to the self than to others only human nature traits (characteristics that can describe both people and animals, e.g., warm or curious), but not uniquely human traits (characteristics that describe only people and not animals (e.g., conscientious or thoroughness) (Halam & Bain, 2007). I found that the Self-humanizing is not an effect unique to judgments about the self. Similar effects appeared when people compared themselves with an average person and when they compared their dogs with an average dog.
<b>Alice Lo</b> <i>University of Sydney</i>	The role of self-concept in determining response to failure in adaptive and non-adaptive perfectionists	The aim of the study is to investigate how one's self-concept (i.e., beliefs about self-attributes) and self-concept clarity (i.e., the extent to which self-beliefs are defined) predicts responses to repeated failure (compared to repeated success) in adaptive and maladaptive perfectionists. Participants completed a decision-making task and were provided feedback regarding their performance following the task. Participants were randomly allocated to either the repeated success feedback condition or the repeated failure feedback condition. Measures of positive and negative affect, self-efficacy, threat appraisals, self-concept content, and self-concept certainty were assessed at baseline, during the decision-making task, after completion of the task, and after receiving performance feedback.
<b>Hanbit Cho</b> <i>University of New South Wales</i>	Differences between buyers and sellers in their response to unethical companies	To try and understand the processes behind why unethically reputed companies still thrive, we examined how people buy and sell goods that are associated with unethical and morally neutral companies. Preliminary results indicate that buyers would pay less or goods that are associated with unethical companies, whereas sellers would accept a similar amount regardless of whether the good is associated with an unethical or a morally neutral company. This suggests that sellers and buyers differ in the way they conceptualise themselves as being accountable when it comes to trading unethically associated goods.
<b>Sam Moreton</b> <i>University of Sydney</i>	Social Exclusion and Connectedness To Nature	Many writers have noted that humans can feel an affinity with the natural world. Feeling connected to nature has been linked with many positive mental health outcomes. Of particular interest to the present investigation, previous work has revealed positive correlations between feelings of connection to other humans and connection to nature. However, the causality of this relationship has not yet been investigated. To test the hypothesis that connection to nature can be an outcome of social connection, participants in four studies were socially excluded and reported feelings of connection to nature. In all studies, excluded participants reported lower feelings of connectedness to nature although this effect was only significant in two. The implications of this work and future directions are discussed.
<b>Rose Peak</b> <i>Western Sydney University</i>	Online messages of support and wellbeing	The current research investigated two propositions, firstly that making an online act of support increases wellbeing in the supporter, and secondly that it increases the desire to help others in the future. It also looked at mediators of these two relationships. A further proposition was that the limiting effects of disadvantage were reduced by the act of support. Of seven wellbeing indicators, only positive feelings was increased by the supportive act, however the limiting effects of is advantage on hope and then wellbeing were reduced by making the act of support. Providing support did not increase commitment to help others in the future however the negative impact of disadvantage on social identity and then commitment to help others as reduced by the supportive act.

### Stream D: Session 1

Name	Title	Abstract
<b>Tarryn Balsdon</b> <i>University of New South Wales</i>	Differences between stimuli identification and detection judgments	Intuition suggests that when an observer can identify a stimulus, they can also detect it. But this is not always the case. Here we demonstrate superior performance in identifying the direction of gaze (to the right or left) than in detecting whether gaze is offset from centre, using a 2x2AFC double judgements procedure. We show that this pattern of performance can be best explained by a simple Thurstonian model. Using metacognitive ratings we then show that observers are also more aware in the identification judgement than the detection judgement and this reflects the amount of evidence in making each decision.
<b>James Brown</b> <i>University of Sydney</i>	Manual tactile perception: experts vs. novices	The resolution of manual tactile perception, and the influence of crossmodal input and long-term manual experience. The presentation will cover studies of manual tactile perception, with particular regard to the temporal and spatial resolution of manual tactile perception, and the influence of crossmodal input and long-term manual experience. The experiments in the studies involve simple detection tasks, temporal order judgment tasks, and cluttered display tasks (both unimodal and crossmodal). The researcher is interested in observing performance and sensitivity differences on manual tactile tasks in the presence or absence of other sensory input (i.e. auditory and visual), and also between the normal population and those with long-term manual experience i.e. musicians).
<b>Shui'Er Han</b> <i>University of Sydney</i>	Continuous flash suppression and the role of masker refresh rates	Continuous flash suppression (CFS) is a psychophysical technique where a rapidly changing pattern viewed in one eye suppresses the target in the other eye for several seconds. Despite its widespread use in the study of awareness and unconscious processing the temporal tuning of CFS is surprisingly unknown. In this study, we examine the temporal frequency tuning of CFS using temporally narrow-band maskers. Our results show that, contrary to common assumption, slow masker refresh rates (e.g., .75-1.5 Hz) suppress targets for longer durations compared to faster masker refresh rates (e.g., 10 Hz and above). The discrepancies in results are discussed.
<b>Daniel Talbot</b> <i>Western Sydney University</i>	Effects of binocular disparity on temporal order judgments in spatio-temporally cluttered visual environments	Recently, Cass and Van der Burg (2014) demonstrated the Remote Temporal Camouflage (RTC) effect - the impairment in perceived timing of spatially displaced visual events due to the presence of dynamic visual clutter elsewhere in the visual field. The present study aimed to replicate the RTC effect (a temporal order judgement task), and investigate whether binocular disparity differences between targets and their distractors are capable of ameliorating the deleterious effects of RTC. The study was successful in replicating the RTC effect. Further, crossed but not uncrossed disparity targets improved performance in dynamic distractor contexts, which otherwise produce substantial RTC.

## Stream A: Session 2

Name	Title	Abstract
<b>Alana Fisher</b> <i>University of Sydney</i>	Treatment decision-making in bipolar disorder: A systematic review	<p>Objectives. To systematically review studies of communication and decision-making in mental health-based samples including BP patients. Methods. Systematic review of quantitative and qualitative studies (PsychINFO, MEDLINE, SCOPUS, CINAHL, EMBASE; 01/2000–03/2015). Results. Of 519 articles retrieved, 13 studies were included. Four inter-related themes emerged, mapping onto decision-making antecedents, process and outcomes. Overall, BP patients have unmet decision-making and involvement needs. Clinician consultation behaviour influenced patient involvement; certain interpersonal aspects fostered therapeutic relationships and more positive patient outcomes. Conclusions. Despite a paucity of BP-specific findings, eliciting patient involvement preferences and developing a collaborative therapeutic relationship may be particularly important in BP.</p>
<b>Faridah Cabbigat</b> <i>Macquarie University</i>	Perceptions of family functioning after childhood abuse	<p>The study aimed to investigate the perceptions of family functioning among Filipino nonoffending caregivers of abused children comparing the results to a group of parents/guardians of nonabused children. Further, the moderating roles of coping and satisfaction with social support in the relationship between parental emotional wellbeing and family functioning were examined. Parents/guardians of abused children perceived their families to be disengaged, rigid and chaotic. Parental emotional distress was correlated with disengaged functioning and low family communication. Coping and satisfaction with social support did not moderate the relationship between parental emotional wellbeing and family functioning.</p>
<b>Nicola Black</b> <i>University of Sydney</i>	Factors affecting the success of computer-delivered interventions for alcohol consumption	<p>Computer-delivered interventions (CDIs) for reducing alcohol consumption produce small effects. Aim: To identify the CDI components that increase effectiveness. Method: Included were randomised studies, which compared CDIs to control groups. CIs were coded for the use of behaviour change techniques and theory, as well as general characteristics such as CDI length. Effectiveness was assessed using meta-analysis and the association between moderators and effect size was assessed using meta-regression. Results and Conclusion: CDIs produced small effects on five alcohol consumption outcomes. A number of moderators were identified and these results can be used to optimise the effectiveness of future CDIs.</p>
<b>Melissa Black</b> <i>University of New South Wales</i>	Cognitive bias modification in Obsessive-Compulsive disorder	<p>Beliefs about memory confidence, perfectionism, and intolerance of uncertainty are important in the etiology and maintenance of Obsessive-Compulsive Disorder. We investigated the application of interpretive cognitive bias modification (CBM-I) in a clinical sample of participants with OCD. The results provide mixed evidence that participants in both the positive and neutral CBM-I training conditions interpreted novel ambiguous scenarios more adaptively, and that those in the positive condition checked less behavioural measures relative to participants in the neutral condition. CBM-I may be useful as an adjunct to traditional cognitive-behavioural strategies or as an online intervention to target maladaptive beliefs in OCD.</p>
<b>Sophie Schneider</b> <i>Macquarie University</i>	Body dysmorphic disorder in adolescents	<p>Body dysmorphic disorder (BDD) is a chronic and often severe obsessive compulsive spectrum disorder. BDD usually begins in adolescence, but little is known about its presentation and impact during this developmentally sensitive time. The current study examined BDD symptoms in 3204 Australian high school students. BDD prevalence was similar to adult samples, and BDD symptoms were associated with decreased quality of life and increased symptoms of anxiety, depression, obsessive compulsive disorder and eating disorders. These findings highlight the need for further research and improved early detection of adolescent BDD, as it is an under recognised and potentially serious disorder.</p>

## Stream B: Session 2

Name	Title	Abstract
<b>Andreea Heriseanu</b> <i>University of Sydney</i>	Executive function in obese individuals	Obese individuals display atypical eating behaviours, as well as poor executive function (EF). The current study aimed to examine whether obese participants (OB) display impairments in goal-directed behaviour and EF compared to a healthy-weight control group (HW), and relate these to atypical eating. OB endorsed greater eating psychopathology and more habitual eating than HW. OB also showed impairments in EF, and did not appear to use knowledge of outcome contingency to flexibly adapt behaviour as much as W. It is possible that EF deficits in obesity are related to making more habitual decisions, reflected in unhelpful eating behaviours.
<b>Alison Young</b> <i>University of Sydney</i>	Familial communication of BRCA1/2 mutations	Individuals with a BRCA1 or 2 gene mutation have an increased risk of developing breast/ovarian cancer. Their offspring have 50% of inheriting the gene mutation. Parents are amongst the first people to inform their offspring of genetic risk. Very few studies have explored communication processes by inviting all members of the immediate family to participate in a family interview. The proposed study will explore risk communication between offspring and their parents, at least one of whom has a BRCA1/2 gene mutation. The individual and collective experience of parents, sons, and daughters will be explored qualitatively and quantitatively.
<b>Shiu Wong</b> <i>University of New South Wales</i>	The inference-based approach in obsessive-compulsive disorder	The inference-based approach (IBA) has been proposed as an alternative to the prominent cognitive appraisal model of obsessive-compulsive disorder (OCD). The IBA conceptualises obsessions as pervasive doubts about reality that are inferred to be true due to faulty reasoning processes, such as inverse reasoning. The aim of the current research was to investigate the IBA's proposition that there is a causal relationship between inverse reasoning and OCD symptoms. We modified an existing computer-based training task to train inverse reasoning in participants and then measured their level of OCD symptoms using a series of behavioural measures. Preliminary results will be discussed.
<b>Antonio Mendoza Diaz</b> <i>University of New South Wales</i>	Disorganised attachment in children with callous-unemotional traits	The most common attachment category in children with callous-unemotional (CU) traits is disorganised attachment. Attachment disorganization is usually associated with maladaptive parental behaviours (e.g. inconsistent parenting, abuse, fearful parenting, neglect). However, parents of children with CU traits do not seem to differ from other parents. Furthermore, children with CU traits are less sensitive to parenting interventions. This raises two important possibilities regarding the development of attachment in children with CU traits. One possibility is that parental behaviours related to disorganisation occur earlier than previously assessed. Another possibility is that attachment behaviours from the child drive the development of attachment disorganisation.
<b>Andrew Arena</b> <i>University of Sydney</i>	Responses to death awareness	Terror Management Theory (TMT) and the Meaning Maintenance Model have produced an extensive research base which demonstrates that after an individual is exposed to thoughts of their own eventual death or their sense of meaning is threatened, they tend to defensively cling to their own worldview more fervently. Theory and research in areas including Post-Traumatic Growth, Near-Death Experiences and some recent evidence from within the TMT literature suggests that individuals don't necessarily respond to death in such defensive ways. It appears that at least under certain circumstances individuals may respond to death in more positive ways, where death acts as a catalyst to re-prioritise one's values and live a more authentic life. In a series of studies, I intend to determine (1) whether there are indeed two potential responses to death awareness, (2) which people are more likely to adopt each respective response, and (3) whether the experience of awe can help explain these differential responses.

## Stream C: Session 2

Name	Title	Abstract
<b>Joanne Beames</b> <i>University of New South Wales</i>	A meta-analytic examination of the effects of self-control training: Does it work?	The limited resource model proposes that self-control capacity can be increased after repeated practice on self-control tasks. Existing empirical and anecdotal evidence have produced mixed results, however, leaving open the question of whether self-control training reliably increases self-control capacity in unrelated domains. A meta-analysis of 24 studies (15 published, 9 unpublished) found that, on average, practicing self-control in one domain significantly increased self-control capacity in another. This training effect was of a small to moderate size. These results potentially clarify the ongoing debate regarding the efficacy of self-control training, and have implications for developing more effective training procedures.
<b>Heidi Chng</b> <i>University of New South Wales</i>	The relationship between mother's affect attunement and emotional regulation	This proposed study of my PhD will be a follow-up to Study 1, and will investigate the relationship between affect attunement exhibited by mothers during interaction with their infants aged 6- to 9-months (as observed in Study 1) and emotion regulation behaviour of the child who will now be aged 18- to 21 months. Current frequencies of maternal affect attunement will be measured during a natural interaction session between mother and toddler, and emotion regulation behaviours will be assessed by toddlers' response to emotion-eliciting tasks. Given the rapid increase in language development during the second year of life, the proportion of linguistic-based communication observed during maternal affect attunement episodes in the infancy period will be compared with the proportion identified in the later toddler period.
<b>Kim Ransley</b> <i>University of Sydney</i>	Serial and parallel mechanisms in multiple-word reading	Our goal is to investigate a model of covert attention in reading adapted from the multiple-object processing literature. In this model, representations of each of two words are activated in parallel, and then held briefly in a buffer, before being tokenised serially, starting with the object on the left. Spatial asymmetries in performance on a two-word, partial report task will be used to indicate differences in perceptual trace decay resulting from serial tokenisation. This is predicted to abate if early information is given which can override the proposed left-to-right processing sequence.
<b>Ma Regina de Gracia</b> <i>University of Sydney</i>	False belief understanding and theory of mind The role of the media in the lives of Australian Muslim university students in the months following the Sydney Siege	The study examined the cultural contrasts in false belief (FB) understanding and the development of theory of mind (ToM) in a sample of 68 3- to 6- year olds Filipino children. Using a well-validated developmental 5 step ToM scale (Wellman & Liu, 2004), results show that the Filipino children display the same patterns of progress of ToM steps (i.e., understanding diverse beliefs before knowledge access) like those previously observed with Anglo-Western cultures like Australia and the US. As regards FB understanding, the performance of the Filipino children was dramatically worse compared to previous studies. Implications were discussed.
<b>Vlad Iouchkov</b> <i>Western Sydney University</i>	The Hero With A Thousand Graces': a psychosocial examination of Real-Life Superhero social activities and personal experiences	The Real-Life Superhero (RLSH) movement is a worldwide community of individuals who utilise self-created superhero identities towards community welfare via safety patrols and social outreach. A thematic analysis of interviews with 45 RLSHs is conducted in order to examine the nature of RLSH activity and the personal experiences of RLSHs themselves. The framework for the research is informed by a range of overlapping disciplines including sociology of religion/spirituality; criminology and community-oriented policing; positive psychology, and; aspects of social psychology in order to accurately conceptualise RLSHs as agents of informal social control, and autonomous proponents of individual wellbeing.

## Stream D: Session 2

Name	Title	Abstract
<b>Shuai Chang</b> <i>University of New South Wales</i>	Phantom colour, colour imagery and neon colour illusion	Phantom colour describes colour experience without corresponding retinal input. Colour imagery and neon colour spreading phenomenon are examples of voluntary and involuntary forms of phantom colour. Binocular rivalry paradigm is used to evaluate the strength of effect induced by colour imagery and neon colour illusion. It is found that colour imagery has a significant priming effect on subsequent colour rivalry perception and neon colour illusion has a suppressive effect. We also find significant correlation and interaction between effects from colour imagery and neon colour spreading illusion, suggesting some shared mechanisms between voluntary and involuntary phantom colour.
<b>Sebastian Rogers</b> <i>University of New South Wales</i>	Hallucinations and consciousness: investigation and flicker stimuli	Flickering light produces hallucinations that are difficult to investigate in detail due to their dynamic, heterogeneous features. However, constraining flickering stimulation to an annulus reduces the feature dimensionality of the hallucinations, rendering them suitable for psychophysical investigation. We used this stimulus to measure the contrast of flicker hallucinations, and subsequently determined the optimum stimulation conditions. This method was applied to determine whether the qualities of flicked hallucinations are dependent on processes in visual cortex. This is the first time that low-level qualities of hallucinations have been measured objectively, and the methods could be used to investigate clinical hallucinations and consciousness.
<b>William Ngiam</b> <i>University of Sydney</i>	The role of perceptual abilities in visual working memory ability	Retention and manipulation of information in visual working memory (VWM) is important for visual perception and cognition. Researchers have found strong correlations between measures of VWM capacity and cognitive ability. This has led some to speculate that differences in VWM capacity may cause variations in cognitive ability, and ask whether improving VWM performance will improve cognitive ability. My initial study will explore the link between perceptual ability and VWM using individual differences. The results from this study will inform following studies using perceptual learning to improve VWM. Lastly, we aim to find neural correlates of improvements in VWM from training.
<b>Scott Mooney</b> <i>University of Sydney</i>	Perception of surface shape, material and image focus	A retinal image of a surface is an entangled product of its 3D shape, material, and illumination, as well as focal properties of the lens. Our visual system must correctly disentangle these physical sources of image structure before estimating them, or risk perceptual distortions in one property (e.g. shape) induced by changes in another (e.g. material). Here, we show that changes in image focus can also distort perceived surface shape and material, and demonstrate that our ability to perceptually separate defocus from surface shading depends on the presence and precise location of sharp contours in the image.
<b>Garry Kong</b> <i>University of Sydney</i>	Investigating linear severability in visual search for orientation	Linear separability is a phenomenon in visual search where the presence of distractors that flank the target along a given dimension makes search for that target difficult. For example, search for 0° target with a 10° distractor is easy, but becomes difficult when a -10° distractor is added. We investigated the limits of linear separability in orientation by systematically varying both the target orientation and the angular difference between target and orientation. Search for vertical and horizontal were easiest and 45° most difficult, despite these three being centres of orientation tuning curves.

### Stream A: Session 3

Name	Title	Abstract
<b>Lauren Touyz</b> <i>University of New South Wales</i>	Treatment related weight gain in childhood Acute Lymphoblastic Leukemia	The treatment of childhood Acute Lymphoblastic Leukemia (ALL) is associated with persistent weight gain. Procedure: We analysed the heights and weights of children with ALL, treated on a protocol without cranial radiation and with no steroid during maintenance to document changes in overweight. Results: The proportion of children who were overweight increased from 26.5% at diagnosis to 44.2% five years after diagnosis (P = 0.039). Conclusions: Children with ALL treated without steroid in maintenance are still at increased risk of treatment-related weight gain. Behavioural interventions to prevent or reverse weight gain and subsequent risk of cardiometabolic complications are needed.
<b>Alistair Lum</b> <i>University of New South Wales</i>	Serious illness, mental health, and educational outcomes	Background: Students with serious illness (SI) demonstrate poorer school outcomes (e.g. poorer academic grades and peer/teacher relationships). Poorer outcomes are associated with lower educational engagement caused by unsupportive teacher attitudes. Aims Examine impact of SI on students' satisfaction with teacher support. Methods: Parents and students with and without SI will complete a survey about school experiences and mental health. Groups will be compared. Results: German students with mental illness were less engaged with school than students with physical illness and healthy students. Research with an Australian sample is underway. Conclusion: Mental health is an important consideration when examining education outcomes.
<b>Eden Robertson</b> <i>University of New South Wales</i>	Aiding decisions regarding uptake of a clinical trial in pediatric oncology	Parents of children diagnosed with cancer are faced with the decision of whether to participate in a clinical trial (CT). This study aims to design and evaluate a decision aid (DA) for parents that are considering enrolment in early-phase CTs. The DA will be developed iteratively with families who have already decided whether to enrol. A pilot and randomised controlled trial will be conducted with families who are currently facing this decision. This DA will be the first in pediatric oncology for CT enrolment. It will provide an additional tool for oncologists to utilise during CT consent discussions.
<b>Veronica Ing</b> <i>University of Sydney</i>	Self-compassion practices for bereavement interventions in adolescents and young adults	Grief is the emotional reaction and processes that occur during bereavement, which is necessary to work through so that one can adapt to their lives without the deceased. Currently, there are few bereavement interventions targeted towards adolescents and young adults (AYAs), and yet alone AYAs who have experienced the death of a parent or sibling to cancer, which is one of the leading causes of death in Australia. AYAs (15-25 year olds) are a developmentally distinct age group who have unique needs and therefore would require an intervention that specifically meets these needs so that future psychosocial problems can be prevented. AYAs bereaved by losing a parent or sibling to cancer have reported the unmet needs of understanding from others, help to cope with feelings, being able to talk to people who have had a similar experience, and the space and time to grieve. The goal of my research is to design and evaluate a bereavement intervention based on self-compassion practices that aims to meet the known needs of bereaved AYAs who have experienced the death of a parent or sibling to cancer. The initial stage of my research was to conduct a systematic literature review to identify the number of available interventions for bereave AYAs who have experienced the expected death of a parent or sibling, and to evaluate the theoretical underpinnings and quality of the identified interventions. The gaps and limitations found in my literature review will help guide the design of the intervention.
<b>Gini Burgdorf</b> <i>University of Sydney</i>	Situation-specific control beliefs, responsibility and threat beliefs and obsessive-compulsive phenomena	This study investigated the relationships between situation-specific control beliefs, responsibility and threat beliefs and obsessive-compulsive phenomena. The study sought to experimentally manipulate participants' desire for control and sense of control in respect of a hypothetical contamination scenario, to examine the effect of these control beliefs on participants' responsibility and threat appraisals, and their distress and propensity to act in relation to the potential contamination. Threat appraisals were predicted by desire for and sense of control, while the interaction between desire for control and sense of control predicted distress. Greater distress predicted a greater propensity to act in relation to the contamination scenario.

### Stream B: Session 3

Name	Title	Abstract
<b>Katie Chung</b> <i>University of New South Wales</i>	Consolidating Depressogenic Cognitions Over Time: Does Depression History Moderate Reactivity to Low Mood?	Risk of depression recurrence is robustly associated with the number of prior major depressive episodes (MDEs; Solomon et al., 200), but less is known about the underlying casual mechanisms. The Differential Activation Hypothesis (DAH; Teasdale, 1988) proposes that cognitive reactivity (i.e., reactivation of depressogenic cognitions) to low mood increases over successive MDEs. Previously-depressed and never-depressed individuals (n = 187) rated their endorsement of dysfunctional beliefs before and after a low mood induction. Contrary to the DAH, cognitive reactivity to low mood was not associated with the number of MDEs previously experienced, which suggests a positive outlook for recurrently depressed individuals.
<b>Naomi Millar-Powell</b> <i>Macquarie University</i>	Relationship satisfaction, communication, social support and caregiver burden in Autism Spectrum Disorder	Autism Spectrum Disorder (ASD) is a developmental disorder featuring difficulties with socio-emotional reciprocity and communication (DSM-5, 2013). Symptoms vary among individuals, therefore, some people can live independently (Hofvander et al., 2009) and develop intimate relationships. Relationship satisfaction, communication patterns, social support and caregiver burden were quantitatively assessed among ASD-neurotypical (NT) couplings. Relationship satisfaction was low and caregiver burden was high and negatively related to relationship satisfaction among NT partners. A moderating pattern related to social support was identified and themes related to caregiving, social support and communication, as well as disconnection and grief were identified in the qualitative data.
<b>Rachel Brebach</b> <i>University of Sydney</i>	Decline and acceptance of psychological intervention in cancer patients and survivors	Reasons for Decline or Acceptance of Psychological Intervention in Cancer Patients and Survivors: An Interview Study Cancer care guidelines recommend screening patients for psychological distress to enable targeting of offers of psychological treatment. However only 50% of distressed patients and survivors accept offers of psychological treatment. We interviewed 24 cancer survivors accepting and declining psychological intervention, to investigate barriers to and facilitators of engagement. Major reasons for declining psychological treatment were a desire to contain feelings, and not believing that distress levels warranted intervention. Having someone to talk to about cancer and learning strategies to help cope with cancer or worries about cancer were seen as beneficial in those accepting psychological treatment.
<b>Warren Logge</b> <i>Macquarie University</i>	Executive functioning in physiological responses to alcohol cues in social drinkers	Previous research has implicated a potential relationship between executive functioning (EF) and physiological responses to salient alcohol cues in regulation of alcohol consumption - albeit in clinical samples and usually employing a single, complex EF task. We aimed to demonstrate that heavier drinkers will show reduced EF have differing physiological regulation during an alcohol cue reactivity (CR) challenge. Data will be presented from a study of 60 social drinkers administered domain-specific EF (response inhibition; set-shifting; updating) tasks and physiological and subjective responses to a CR challenge.
<b>Christina Rodgers</b> <i>Western Sydney University</i>	An interpretative phenomenological analysis of carers of stroke survivors' experiences	The present study aimed to explore the experiences of carers' of stroke survivors when receiving bad news and the perceived impacts these interactions have upon their role as caregivers. Interpretative phenomenological analysis revealed that when health professionals delivered bad news in a timely and empathetic fashion, carers experienced greater levels of hope, optimism and motivation regarding the survivor's recovery. As such, the results suggest that mindful delivery of bad news by health professionals can support carers of stroke survivors in psychological adjustment and provide confidence to undertake their care giving role.

### Stream C: Session 3

Name	Title	Abstract
<b>Beatriz Lopez</b> <i>University of Sydney</i>	The role of personality and attachment in sexual self-disclosure	The ways members within a romantic relationship behave, feel and think (i.e. personality) as well as the way they are emotionally bonded (i.e. adult attachment) will be affecting behavioural processes such as the disclosure to their dating partner about personal likes and dislikes with respect to specific sexual activities they engage in (i.e. sexual self-disclosure). However, the research investigating the former behaviour (sexual self-disclosure) has thus far been limited. A study was developed to research which survey is more appropriate for measuring sexual self-disclosure. The data gathered will serve to develop the following Study in Mexico and Australia.
<b>Kit Double</b> <i>University of Sydney</i>	When do cognitive training programs work? The role of metacognition in training and transfer	Computerised cognitive training programs that claim to enhance the cognitive abilities of users are a rapidly growing enterprise and have the potential to bring significant economic and health benefits. However, the evidence that such programs deliver meaningful benefits beyond the trained task is mixed. Attempts to establish the efficacy of training programs are complicated by significant individual differences in training outcomes between participants. Yet, currently there is little research aimed at establishing the cognitive and non-cognitive determinants of training outcomes. The current research program evaluates cognitive training from an individual differences framework and proposes that metacognitive processes influence training outcomes.
<b>Scott Gayton</b> <i>University of New South Wales</i>	The role of character strengths in success during selection for special forces	For entry into the Special Forces (SF), applicants undergo a barrage of strenuous physical and psychological assessments. Despite this screening, subsequent attrition rates in the first weeks of initial selection courses are typically high, and entry testing results have shown limited success for predicting who will complete these courses. An SF applicant's character is often thought to be a decisive factor, however this claim has remained untested. Accordingly, Australian Army SF applicants (N = 115) are asked to rank themselves on 24 character strengths (Peterson & Seligman, 2004) at the start of the selection process. Successful applicants (n = 18) assigned their top ranks to team worker (72%), integrity (67%), and persistence (50%). Applicants (n = 31) who did not include any of those three strengths in their top ranks all failed to complete the selection process. In contrast, successful versus unsuccessful applicants did not discernibly differ on physical assessments and a written test. Results are discussed with their implications for enhancing the testing and selection of SF applicants.
<b>James Middleton</b> <i>Western Sydney University</i>	An exploratory analysis of how decision-making heuristics produce the increased risk-taking behaviour of the Dark Triad	Modern personality research suffers from numerous conceptual problems. Namely, attempts to provide explanatory accounts of the mechanisms underlying personality traits rely upon misunderstandings of what traits are. Thus, this study provides an exploratory analysis of how decision-making heuristics might differ across individuals, and produce the increased risk-taking behaviour of the Dark Triad. Using hypothetical models, each personality trait showed unique differences from each other, and deviations from the general value function were greater for the Dark Triad than those of other risk-taking traits. These value functions imply potentially adaptive functions in some situations, and are discussed from an evolutionary perspective.
<b>Patrick Pham</b> <i>Western Sydney University</i>	The psychological and behavioural impacts of smartphone separation among users	Previous research on smartphones have focused mainly on the psychological and behavioural impacts of smartphone use. Few studies have explored the psychological and behavioural impacts of smartphone separation among users. The present study aims to examine the effects of smartphone separation on psychological and physiological anxiety. The present study also aims to determine if daily smartphone use levels, Facebook intensity scores, and Fear of Missing Out (FoMO) scores are key predictors of individual differences smartphone separation anxiety. Results showed that significantly higher psychological anxiety but not physiological anxiety during smartphone separation. Daily smartphone use levels, Facebook intensity scores and Fear of Missing Out scores failed to predict significant differences in smartphone separation anxiety.

### Stream D: Session 3

Name	Title	Abstract
<b>Jessica Boh</b> <i>Macquarie University</i>	Effect of sugar consumption on D2-like receptors	Sugar consumption has negative outcomes on physical and mental health. Recent emphasis has been placed on the impact of chronic sugar consumption on the dopaminergic motivation-reward system, which is particularly vulnerable during adolescence. This study investigated the effects of chronic sugar consumption during adolescence on the density and affinity of D2-like receptors in the brain. Rodents were given free access to either 10% sucrose solution or normal water in their home cages. PET and autoradiography studies were conducted to image D2-like receptor binding in the striatum, to assess functional and total D2 receptor density, respectively. Results are currently being analysed.
<b>Sandersan Onie</b> <i>University of New South Wales</i>	The dot probe and emotion-induced blindness in negative affect	Attentional biases to threatening stimuli have been implicated in emotional disorders. The “dot probe” (DP) has been widely used to index and retrain attentional biases, but it may not index the full range of relevant attention mechanisms. We compared the DP to “emotion-induced blindness” (EIB), specifically examining the degree which these tasks predicted (a) negative affect and (b) persistent negative thought (i.e., worry, rumination). The two tasks significantly accounted for unique variance in negative affect. The relationship between EIB and negative affect was linked to persistent negative thought, whereas that between the DP and negative affect was not.
<b>Phillip Green</b> <i>University of New South Wales</i>	The problem with using time-out punishments for rodents	The Rodent Iowa Gambling Task (rIGT) has been used extensively to examine risk-based decision making behaviour in rats and to draw inferences regarding the neurological mechanisms underlying gambling behaviour. However, many of these inferences rely on the assumption that animals are sensitive to the time-out delay punishments that are used to signal loss. Data will be presented that demonstrate the inefficacy of these time-out punishments to modulate decision making behaviour, as well as data examining the effects of amphetamine on choice behaviour in these tasks and how this is unlikely to be dependent on the inclusion of delay punishments.
<b>Veronica Quinn</b> <i>University of Sydney</i>	Latent inhibition of conditioned nausea in both informed and uninformed groups	Latent inhibition refers to the phenomenon whereby pre-exposing a subject to a stimulus retards subsequent learning about that stimulus. An experiment was conducted to determine if pre-exposure to placebo-Galvanic Vestibular Stimulation could reduce conditioned nausea to GVS on test. Experiment 1 found that pre-exposure to GVS on day one reduced conditioned nausea. Experiment 2 sought to determine whether this effect was contingent upon the deception involved in the first design, through the addition of a group given “informed” pre-exposure. It was found that latent inhibition occurred in both the uninformed and informed groups to an equivalent extent.
<b>Jonas Chan</b> <i>University of Sydney</i>	The role of trials versus reinforcement rate in the extinction of conditioned responding	Rates of responding in a Pavlovian conditioning paradigm are dependent on the overall rates of reinforcement scheduled during acquisition. Therefore, the effects on learning that arise due to other differences between schedules may not be immediately apparent. We found rats trained on a short, partially reinforced stimulus (15 s, 33% reinforced) produced a slower rate of extinction than on a longer, continuously reinforced (45 s, 100% reinforced) stimulus. This result implies that trial duration and probability of reinforcement are learned during Pavlovian conditioning; exposure to extinction may allow us to distinguish between behaviours that initially appear to be similar.

### Stream A: Session 4

Name	Title	Abstract
<b>Alistair Barkl</b> <i>Western Sydney University</i>	Islamophobic media discourse and identity threat in muslim students	This study sheds light on the role media has played in the lives of a small group of Australian Muslim university students in the months following the Sydney Siege. The aim of this study was to generate in-depth phenomenological data from which a better understanding of Australian Muslims' experiences may evolve. Transcripts of six individual interviews were analysed using thematic analysis (Braun & Clarke, 2006), generating three themes. Taken together, themes provided a framework for understanding how Islamophobic media discourse represented an identity threat for the small group of Australian Muslim students, which they actively resisted in order to preserve their identities.
<b>Vera Newman</b> <i>University of New South Wales</i>	Stress, resilience, and executive function	Stress is known to interfere with various aspects of cognition. The current series of studies aims to employ a novel virtual reality stressor — in which participants perform tasks at “ground level” or while virtually perched almost 100 metres in the air — to examine the impact of stressful scenarios on key aspects of executive function. It is hoped that this research will further our understanding of stress-related performance deficits and their modulation by individual differences. Further, we hope to gain insight into why some individuals show remarkable resilience in the face of stress, whereas others show stress-related impairments in executive functioning.
<b>Amy Burton</b> <i>University of Sydney</i>	Validation of the Eating Beliefs Questionnaire	The Eating Beliefs Questionnaire (EBQ), a 32-item self-report assessment tool that measures beliefs about food, eating and bingeing that are believed to play a key role in maintaining binge eating behaviour that occurs in individuals with Bulimia Nervosa, Binge Eating Disorder and other atypical eating disorders. Although demonstrating promising results in the initial validation study, additional research needs to further investigate the psychometric properties and clinical utility of this measure. The present study aimed to validate the factor structure and psychometric properties of the EBQ using a clinical and non-clinical sample. Preliminary results and future directions will be presented.
<b>Jasmine Fardouly</b> <i>University of New South Wales</i>	Impact of appearance comparisons on psychological outcomes	Appearance comparisons can negatively influence women’s body image and can occur through different mediums (e.g., magazines, social media, in person). We conducted an Ecological Momentary Assessment study investigating the frequency and outcome (body satisfaction, mood) of appearance comparisons through different mediums in young women’s everyday lives. Appearance comparisons through social and traditional media negatively impacted women's body satisfaction, and appearance comparisons through social media had the most negative impact on mood. In person comparisons were more positive. This suggests that it is mainly appearance comparisons to idealised images (especially through social media) that are associated with negative outcomes.
<b>Karoline Prinz</b> <i>University of Sydney</i>	Can an online Psycho-Education and Cognitive-Behavioural Intervention Program for young people decrease the likelihood and impact of cyber bullying?	The main research question is to establish if the usage of an online psycho-education and CBT intervention program will decrease the likelihood that an individual will experience being cyber-bullied, and also reduce the impact of any bullying that is experienced. For example, it is intended to assess outcomes of the new online based intervention program ("Step Up") with the PECK (Personal Experiences Checklist), which was developed to assess a young person's experience of being bullied (Hunt, Peters & Rapee, 2012) across four different factors: relation-verbal bullying, cyber bullying, physical bullying and bullying based on culture. The intervention program will be based on "The Confident Kids Program" (Berry & Hunt, 2009). The "Step Up" program's aim is to decrease vulnerability to bullying by building coping responses over time. Emotional regulation, internalizing behaviours, self-esteem, social skills, coping behaviours and self-compassion will be elements within the online program. The Step Up program was assessed for comprehension and acceptability by a sample of first year psychology students (N=30). The research project will be designed for 12 to 18 year old students, a group, highly affected by cyber-bullying ( <a href="http://www.step-up.co">www.step-up.co</a> ).

### Stream B: Session 4

Name	Title	Abstract
<b>Nathalie Elliott</b> <i>University of New South Wales</i>	The effects of early life stress on fear generalisation in adult rats	The effects of early life stress on fear generalisation in adult rats. Early life stress increases the risk of developing a mental health disorder, with epidemiological evidence showing that around 30% of anxiety disorders are attributable to early life stress. Recently, one factor that has begun to emerge as potentially being involved in the pathogenesis of anxiety is generalisation. That is, several studies have reported that individuals with anxiety show fear over-generalisation compared to controls. However, the effects of early life stress on generalisation have not yet been extensively examined. In my thesis, I will examine the impact of early life stress on generalisation of fear in a range of settings.
<b>Jemma Todd</b> <i>University of Sydney</i>	Attentional Bias Modification: Effects on cognitive processes and experimental pain outcomes	The present research explores the effects of attentional bias modification (ABM) on cognitive processing biases and pain outcomes. Healthy students (N= 106) were randomly allocated to versions of ABM training attention towards or away from sensory and affective pain words, as well as completing pre-post measures of attention and interpretation bias, and a cold pressor task. Sensory and affective ABM training had differing effects on attentional bias, and affective training influenced pain outcomes, although there was no effect on interpretation bias. It therefore appears that sensory and affective biases have distinct attentional patterns, however, mechanisms of change were not established.
<b>Catherine Gittins</b> <i>University of Sydney</i>	The relationship between parent self-cognitions and parenting behaviour	It is clear that parenting influences the development of depression in children and adolescents. What is not well known is the origins of problematic parenting behaviour. Theories highlight parent's own psychological health as influencing their behaviour. This research aimed to test the relationship between parenting behaviours and parent self-cognitions. 103 mothers of Grade 7 students completed an online survey. Results indicated parent self-cognitions significantly predicted Psychological Control. Parents who have low self-worth appear more likely to be psychologically controlling towards their children. These findings indicate an important area currently being neglected in treatment interventions: underlying factors driving unhelpful parent behaviours.
<b>Peter Baldwin</b> <i>University of New South Wales</i>	Hoarding disorder: Relationships with distress tolerance, anxiety sensitivity and intolerance of uncertainty	Hoarding individuals report low distress tolerance (DT), and relatively high anxiety sensitivity (AS) and intolerance of uncertainty (IU). Despite the increasing transdiagnostic relevance of these three constructs, little is known about how specifically D, AS, and IU contribute to hoarding disorder (HD). We constructed a structural equation model to examine specific relationships between the facets of DT, AS, and IU, and the primary symptoms of HD. A sample over 1,000 individuals completed measures of DT, AS, IU and hoarding online via Mturk. Our model indicates that the 'avoidant' facets of AS, DT, and IU are most related to hoarding.
<b>Lizzie Stewart</b> <i>University of Sydney</i>	Theory of mind in patients with epilepsy: a systematic review and meta-analysis	Theory of Mind (ToM) is the ability to understand thoughts, intentions and feelings of others and oneself. A growing body of research suggests that patients with epilepsy are impaired in ToM, however, the literature does not currently agree on (i) the severity of ToM deficits in patients with different types of epilepsy; (ii) the most valid and reliable tools to assess ToM. Our meta-analysis examined whether ToM deficits varied as a function of (i) the site of epilepsy focus (frontal or temporal lobes, generalised seizures), (ii) the ToM task used. We also examined whether various moderator variables (age of seizure onset, duration of epilepsy, seizure frequency, medication, surgery, executive skills) affected the magnitude of deficits observed. Databases including Psychinfo, Medline/PubMed and EMBASE were searched. 12 were identified: 10 adult studies and 2 child studies. ToM was impaired in adults with focal seizures emanating from brain regions critical for ToM: temporal and frontal lobes ( <i>Hedge's</i> $g=1.025$ and $g=0.915$ , respectively) but not in adults with focal seizures outside the temporal and frontal lobes ( $g=0.336$ ). ToM deficits were also documented in children with generalised seizures (idiopathic generalised epilepsy, IGE; $g=0.590$ ). Earlier age of seizure onset was associated with more marked ToM deficits in adults with TLE. Our findings are novel and of clinical importance. They highlight the need for further research into ToM in children with epilepsy, as early identification and appropriate intervention may minimise subsequent deficits in adulthood.

### Stream C: Session 4

Name	Title	Abstract
<b>Belinda Kirley</b> <i>University of Sydney</i>	The role of corticospinal excitability in associative learning for motor responses	Transcranial magnetic stimulation was used to probe the excitability of the corticospinal tract during motor preparation by measuring motor evoked potentials in the hand muscle. In two experiments, learning-related changes in corticospinal excitability (CE) were investigated using a cued-reaction time task. During the early stages of motor preparation, a significant increase in CSE was observed from the first to second halves of the experiment. During the later stages of motor preparation, CSE was significantly greater when the measured hand was cued to respond. These results suggest that associative learning can modulate the excitability of the corticospinal tract and these changes differ for dominant and non-dominant motor responses.
<b>Metaxia Kokkinos</b> <i>University of New South Wales</i>	Attachment primes and fear responses	Recent research has begun to examine the link between the attachment and fear systems. There is evidence to suggest that attachment activation down-regulates the stress response. This study showed that subliminally presented attachment primes inhibited the startle response ( $p = 0.048$ ) and augmented skin conductance responses, but only for participants who had a secure attachment style ( $p = 0.025$ ). This is the first study to have demonstrated that attachment primes can alter automatic reflexes like state and skin conductance. These results have implications for the treatment of disorders that are characterized by hyperactive fear responses.
<b>Stephanie Roughley</b> <i>University of New South Wales</i>	Dopamine D1 and D2 receptor involvement in Pavlovian learning	Previous research suggests differential involvement of dopamine in two forms of Pavlovian conditioned approach; sign-tracking and goal-tracking. While dopamine activity appears to be necessary for both learning and performance of a sign-tracking response, it is only necessary for performance of a goal-tracking response. The current experiments aimed to investigate whether this effect could be isolated to particular dopamine receptors. In contrast to previous findings, results indicate that both non-specific (D1 and D2) and D1-specific dopamine receptor blockade impairs learning and performance of both types of conditioned responding. However, D2 receptor blockade does not appear to impair learning a goal-tracking response.
<b>Lara Easdale</b> Western Sydney University	Learning about cues: exploration of uncertain cues	Human attention is allocated according to both a predictiveness (attending to meaningful cues) and an uncertainty principle (exploring uncertain cues). Together they suggest an interaction between exploitation of known predictive cues and exploration of unknown cues. However, both principles have only recently been demonstrated simultaneously (Beesley, Nguyen, Pearson & Le Pelley, 2015). The present study sought to examine whether preferential allocation of uncertain cues leads to more rapid learning about these cues in the future. Results showed that participants who experienced an increase in perceived uncertainty showed a higher learning rate compared to participants for whom uncertainty was constant. This represents the first evidence for an effect of exploratory attention on rate of learning in humans.

### Stream D: Session 4

Name	Title	Abstract
<b>Daniel Forrest</b> <i>University of Sydney</i>	Unmasking latent inhibition in humans	Learning an association between a conditioned stimulus (CS) and unconditioned stimulus (US) can be impaired by pre-exposure of the US alone. Evidence for this latent inhibition (LI) effect in humans is said to require an added experimental condition known as a “masking” task, which diverts attention away from the CS during pre-exposure. Three experiments using a computer-based task investigated whether LI can be demonstrated in humans without masking. Some subjects learned the CS-US associations, responding faster to the US when it was preceded by a CS. These participants learned the novel CS-US association sooner than pre-exposed CS- US association; evidence for LI. Learning also corresponded with awareness. We conclude that humans can show LI even when they actively attend to the CS during pre-exposure.
<b>Stephanie Quail</b> <i>University of Sydney</i>	Learning About Nothing: Examining Inhibitory Pavlovian Associations in Humans.	The ability for cues to come to predict both the delivery and absence of reward has been clearly established in rats. The evidence regarding learning about the absence of reward in humans is much less so. Conditioned inhibition has been established in humans, although much of this research is found in causal learning tasks which are particularly sensitive to the instructions and framing given. This talk will outline our attempts to establish inhibitory Pavlovian associations in a manner more similar to the established non-human literature, and the direct and indirect assessment of the outcome-specific nature of this learning.
<b>Katie Osborne-Crowley</b> <i>University of New South Wales</i>	Flexible adaptive learning after traumatic brain injury	One reason that people with traumatic brain injury (TBI) may be unable to flexibly adapt behaviour is that they cannot update information about the value of an expected reward. In this study, reward positivity was measured during a reinforcement learning task in which participants learned that one stimulus predicted high reward and other predicted low reward. These contingencies switched half way through the task. While control participants were able to update the predicted reward value after the contingencies swapped, participants with TBI were not. This inability to update information about the value of an expected reward may contribute to inappropriate social responding.



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