



## **13<sup>th</sup> Australian Conference on Personality and Individual Differences**

Mantra Parramatta, Parramatta NSW, 3 - 5 December 2015

Convenor: Peter Jonason



## **PROGRAM AND ABSTRACTS**

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## WELCOME

On behalf of Western Sydney University, let me welcome you old and new participants to the annual conference for the APS' interest group, Australian Conference for Personality and Individual Differences and to Parramatta (/ˌpærəˈmætə/) or as it is colloquially called, *Parra*. Parra was founded in the same year as Sydney by the British in 1788, is the oldest inland European settlement in Australia, the economic capital of Greater Western Sydney and the sixth largest central business district in Australia. It is a burgeoning hub for economic and social development in NSW and we hope you will enjoy your limited time here.

The last few years at ACPID has seen an increase in attention paid to applied outcomes for personality and individual differences (e.g., educational outcomes, organizational psychology). This year, we make a return to basics and continue to present studies of an applied nature. As we always have, the conference program is composed of a range of talks from presenters who range from 4<sup>th</sup> year students to seasoned academics. Our keynote speaker (i.e., Chris Jackson) will present some sweeping thoughts about the nature of personality traits themselves and how we might best conceptualize them.

**Welcome Reception.** You are invited to a welcome reception at 6pm to open the conference at the Mantra's bar. The reception will allow you to register, will have 30 minutes of canopies and drinks provided and feature Professor Kevin Dunn, Dean of the School of Social Sciences and Psychology from Western Sydney University with opening remarks.

**Breakfast:** Breakfast will be served at the Mantra from 8:30 to 9:30am before the conference starts. I hope this will improve attendance to the first talks of the days (Bronze room).

**Lunch:** A buffet-style lunch will be served at the Mantra's restaurant.

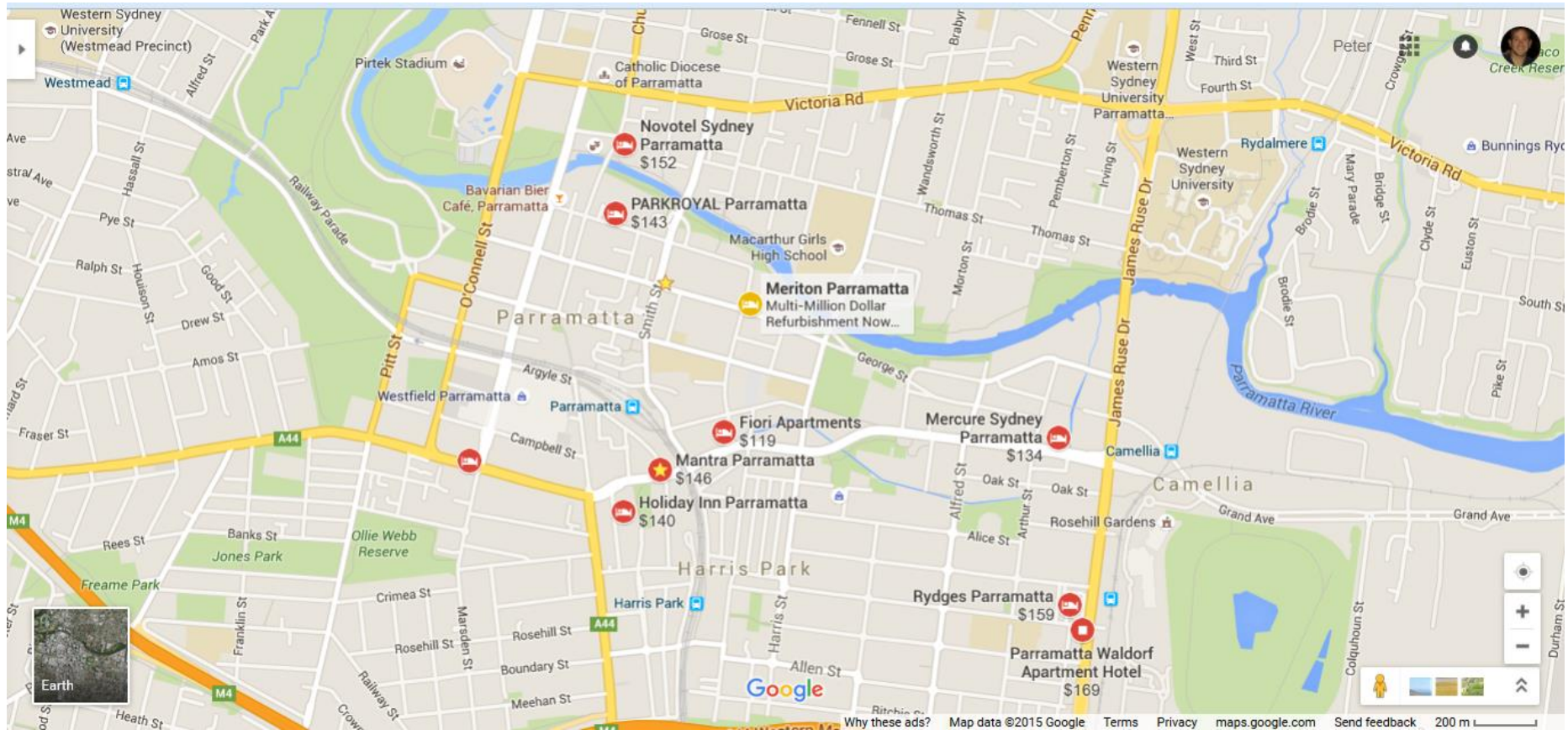
**Conference Dinner.** There will be a banquet at the [El-Phoenician](#) on Friday 4th December, 6:30 – 9:30pm. Tickets are \$60 (food only). Drinks can be purchased on site or bought in advance, but to be determined upon sign-ups for the banquet (map below).

If you chose not to go to the Banquet or just want to go out for drinks/food, the closest and by far best option is to head to Church St. (map below). It has bars, restaurants, and shops that range from “broke college student” to “rich, old professor”. The Bavarian Bier Café is a good choice (map below).

**Staying in Parramatta.** In addition to accommodation at the Mantra Parramatta there are a range of options available in the area (see below image). The conference hotel and an affordable option at the University is also available.

Name	Price	Distance from conference
<a href="#">Mantra Parramatta</a>	From \$136/night - Call and quote "University of Western Sydney December" for a 10% discount	-
<a href="#">UWS Village</a>	From \$65/night	2.2 km

## MAP OF LOCAL HOTELS AROUND THE CONFERENCE HOTEL



## MAP TO BANQUET FROM CONFERENCE HOTEL

Walking directions

via Church St

13 min

1.1 km

Show terrain

Use caution - may involve errors or sections not suited for walking

Mantra Parramatta, Parkes Street

Parramatta NSW 2150

↑

Walk north on Valentine Ave towards Wentworth St

200 m

↑

Continue onto Fitzwilliam St

180 m

↘

Turn right onto Church St

Destination will be on the right

700 m

El-Phoenician Restaurant, 328 Church Street

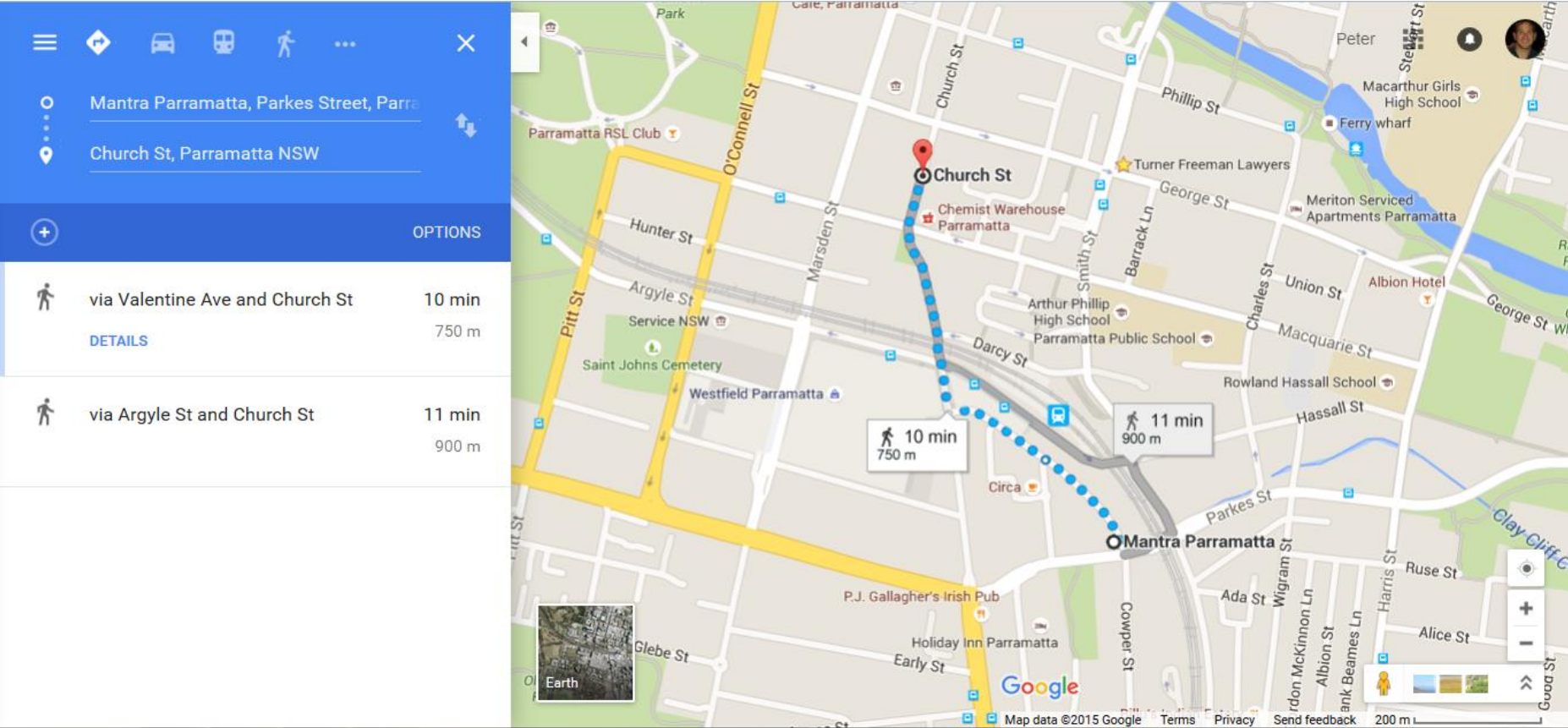
Parramatta NSW 2150

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2015 Google Terms Privacy maps.google.com Send feedback 200 m



MAP TO CHURCH ST FROM CONFERENCE HOTEL



## MAP TO BAVARIAN BIER CAFE FROM CONFERENCE HOTEL

Walking directions

via Church St

14 min

Show terrain

1.1 km

Use caution - may involve errors or sections not suited for walking

Mantra Parramatta, Parkes Street

Parramatta NSW 2150

↑ Walk north on Valentine Ave towards Wentworth St

200 m

↑ Continue onto Fitzwilliam St

180 m

↻ Turn right onto Church St

650 m

↶ Turn left onto Phillip St

87 m

Destination will be on the right

Bavarian Bier Café, Parramatta, 2-8 Phillip Street

Parramatta NSW 2150

Map data ©2015 Google Terms Privacy maps.google.com Send feedback 200 m

FRIDAY (4 <sup>th</sup> )	Room Silver	Room Gold
9:30 to 11:00	Awe, Affect, & Authenticity	Competence and Cognition
	Death, Meaning, Authenticity and Awe: The Role of Personality in Responding to Mortality Salience	Non-cognitive Factors in Academic Achievement: Evidence from PISA and TIMSS
	Turning Inwards: Powerful Aesthetic Emotions are More about You—The Open You	Effects of Fatigue On Attention, Cognitive Abilities, Confidence And Decision Making
	The Within and Between Person Structure of Aesthetic Experiences	Measurement of the Confidence trait: Psychometric evaluation of on-task and self-report confidence measures
	Can Awe Foster Feelings of Connection to Humanity, Other Life Forms and, Ultimately, the Universe?	Arrogant but Incompetent: An Investigation into the Competence and Cognitive Arrogance Taxonomy
11:00 to 11:30	Morning Tea	
11:30 to 1:00	(not so) Rapid Talks	Applied
	An Exploration of Tinder: Motivations For Use and Characteristics of Users	Conflict Management Styles and Personality in an Online Video Game Context
	Incomplete and Complete Forgiveness: The role of forgiveness motivations, emotion regulation, relationship commitment and trait compassion.	Individual Differences in the Experiences of Service Providers for Survivors of Human Trafficking
	Priming Implicit Theories of Intelligence: Differences in Cognition and State Anxiety	Procrastination: Appraisal and the Individual Differences that Influence Delay
	Conscientiousness moderates the impact of BDNF gene on recall performance	Individual Differences in Lie Detection: Examination into the Role of Emotional Intelligence and Auditory Processing
1:00 to 2:00	Lunch	
2:00 to 4:00	Personality Processes	Psychometrics
	Agentic Extraversion is a Unique Predictor of Reward-Prediction-Error Signals	Cross-national equivalence between personality scales: a 15 nation comparison
	Extraversion and the Desire to Win: Components of Reward-Processing as Predictors of Competitive Bidding in Auction Games	The emerging personality structure: Gender differences in a self-report measure of the Big Five for Children
	Extraverted Behaviours, Social Experiences, and Positive Affect in Everyday Life	The Psychometric Properties of Cognitive Confidence: Structure across Cultures in Working Adult Samples
	Aspects of Agreeableness and Norms of Equity and Need: A Person x Situation Account of Prosocial Behaviour in Economic Games	Control Autonomy Self-Realization Pleasure-12 (CASP-12): Frequentist and Bayesian Confirmatory Factor Analysis, validity, and reliability
	Openness, Interpersonal Affiliation, and the Rewards of Sad Music	Gullibility: Devising a Self-report Measure
	Do Basic Traits Predict Susceptibility to Mixed Emotions?	The Importance of Comprehensive Normative Data: An example from neuropsychological assessment
4:00 to 5:00	Free Hour (tea/coffee provided; drinks for purchase)	
5:00 to 6:00	Keynote Address: Professor Chris Jackson	



SATURDAY (5 <sup>th</sup> )	Room Silver	Room Gold	
9:30 to 11:00	Darkside	Statistics	
	Decision Heuristics in the Dark Triad: Can Value Functions Help Explain “Dark” Personalities?	Tracing the quiet revolution: statistical modelling in individual differences research	
	Narcissistic demand, Machiavellian supply: the Interplay of Dark Triad traits to increase success as a Twitter Troll	Poor replicability in personality research: are we really so surprised?	
	Cumulative Risk Effects on Aggression	A philosophical foundation for Trait Theory: Armstrong’s Theory of Concrete Universals	
	Individual differences in how people understand social status	A psychometric review of self-report boredom measures	
11:00 to 11:30	Morning Tea		
11:30 to 1:00	Intelligence	Big Five	
	Deconstructing intellectual curiosity	Boredom and the OCEAN model for men and women	
	Gradients of Non-cognitive Factors in Student Achievement	Extraversion, Pro-social Peers, and Risky Substance Use: Testing social-personality influences on adolescent risk development	
	Raven’s Progressive Matrices: Fluid ability, visuospatial ability and sex differences	Popular descriptors of introversion: a qualitative study	
	Psychological Dimensions of Academic Interest	Are The Big Five personality factors merely projections of raters' implicit theories of personality?	
	An investigation into the relationships between sex, gender identity, emotional intelligence, and stress: Emotional skills protect feminine women from stress but not feminine men.	Personality profiles of Asian personal fashion assistants (consultants): Relationships with performance	
1:30 to 2:30	Lunch		
2:30 to 3:00	Afternoon tea/ACPID BUSINESS MEETING: GOLD ROOM		

## KEYNOTE ADDRESS



Chris Jackson, Ph.D. (UNSW)

**Title:** Towards a comprehensive model of personality

**Abstract:** An issue of key significance to personality science remains our understanding of “*what comprises a comprehensive model of personality?*” Researchers who endorse the Big Five might say that the answer stares us in the face, but other researchers are beginning to come up with alternatives. I will compare the Big Five and Reinforcement Sensitivity Theory to determine if either can reasonably be considered to be the basis of personality. I will use a scientific approach in this analysis and deal with important issues including approach and avoidance, within and between person conceptualizations of personality and models that seek to bridge within and between person concepts. Inexorably, I will be drawn towards a comprehensive model of personality inspired by Reinforcement Sensitivity Theory and the Context Appropriate Balanced Attention Model whilst incorporating new bridging ideas as a way of moving towards the elusive comprehensive model of personality.

## AWE, AFFECT, & AUTHENTICITY

### *The Thrills of Life and Death: The Transformational Nature of Awe From a Personality Perspective*

#### **Symposium abstract:**

Awe is a powerful emotion that occupies an interesting space between transformational and terrifying experiences. Recent research has made strides into understanding this emotional state—from the standpoint of elicitors, consequences, and individual differences. This symposium will present research and theory that approaches awe from different theoretical, methodological and contextual perspectives. Arena will present a theoretical perspective on individual differences in responding to the threat of death, proposing an overlap between awe and terror management theory. Fayn will present on the moderating influence of Openness to Experiences on the connection between deeply moving states with introspection. Fayn will also present on the place of awe and piloerection in the structure of aesthetic experiences—both at the within and between person levels. Moreton will then present an important critique of previous awe research that will highlight the difficulties and challenges with investigating awe in the laboratory.

#### **Presentation 1, Title:** Death, Meaning, Authenticity and Awe: The Role of Personality in Responding to Mortality Salience

Arena, A., & Tiliopoulos, N.

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.

#### **Presentation 2, Title:** Turning Inwards: Powerful Aesthetic Emotions are More about You—The Open You.

Fayn, K.

A recent neuroaesthetic study found that powerful aesthetic states are associated with activation in the Default Mode Network (DMN). The novelty of this finding lies in that the DMN has primarily been activated by self-referential thoughts and rather than in response to external stimuli. This finding suggested that the art works that move people are those that provoke thought and elicit introspection. The enjoyment of thought and introspection is also associated with the personality domain of Openness to Experience, which has also been found to predict awe states. Two studies tested whether profound states in response to the arts were related to how thought provoking/introspective the artworks were appraised. Additionally, we tested whether Openness to Experience moderated the relationship between profound states and how thought provoking/introspective the artworks were appraised. Both studies—using different stimuli and conceptualisations of powerful aesthetic states—found that thought/introspection was a strong predictor of powerful aesthetic states. Openness to Experience was related to a greater propensity to experience powerful aesthetic states, and this relationship was qualified by stronger thought/introspection-powerful aesthetic state relationships. This finding suggests a mechanism that could explain part of the association between Openness to Experience and powerful aesthetic emotion such as awe.

#### **Presentation 3, Title:** The Within and Between Person Structure of Aesthetic Experiences: Distinguishing the Knowledge Emotions from the Circumplex Model of Affect

Fayn, K., MacCann, K., & Tiliopoulos, N.

Traditionally the emotion space has been occupied and preoccupied by dimensions labelled valence and arousal, or alternatively, positive and negative affect. When it comes to aesthetics, another group of emotional states is proposed as quintessential to aesthetic experience—the knowledge emotions. Awe, interest, and confusion are states suggested as the knowledge emotions as they stem from epistemic goals, and arise from metacognitive processes associated with integration of new knowledge into existing schemas. The current research sought to evaluate the within- and between-person structure of emotions in response to visual art. Multilevel factor analysis was used to model the within and between person structure of aesthetic emotions and suggested that powerful aesthetic emotions are distinct from positive and negative evaluation of artworks. Differences in the structure of aesthetic experiences were observed at the within- and between person levels. The findings will be discussed with reference to current theories on aesthetic and transformational experiences such as awe.

**Presentation 4, Title:** Can Awe Foster Feelings of Connection to Humanity, Other Life Forms and, Ultimately, the Universe?

Moreten, S.

This presentation will discuss the current literature on the effects of awe on psycho-social outcomes. Keltner and others imply awe as a panacea for the world's ills, but are the effects as powerful as they claim? A recent study looking at the effect of space induced awe on feelings of connection to humanity and nature. Participants either watched awe-inspiring video consisting of satellite footage, recalled a time they felt pride or completed a control task. No significant differences between conditions were found for any of the outcome variables of interest, despite participants in the awe condition reporting significantly more feelings of awe and other self-transcendent positive emotions. With much focus on the literature on what awe can do, we also need to think about what it cannot do. Furthermore, any effects may be contingent on relevant personality variables. Even if there are effects, how long do they last? The limitations of existing research and the difficulties of inducing awe in the laboratory are discussed.

## COMPETENCE & COGNITION

*The relationship between cognitive and non-cognitive constructs with decision-making, competence and academic achievement*

### **Symposium abstract:**

This symposium reports findings from five recent studies carried in Australia. These studies examined the relationship between non-cognitive measures and measures of intelligence, decision-making and educational achievement. In Paper 1, the authors use a wide selection of variables from PISA/TIMSS data and summarize findings about the relationship between 200 non-cognitive constructs and students' academic performance. In paper 2, the authors investigate the effects of fatigue on executive attentional processes, cognitive/metacognitive abilities and decision making behaviour. Paper 3 examined factorial structure of the Confidence construct as captured by on-task and self-reported measures of confidence. In paper 4, the authors develop a framework to examine the Competence and Arrogance. In Paper 5, the authors investigate how cognitive abilities, confidence and control thresholds can account for individual differences in performance on heuristic-and-biases tasks. The results hold important implications on how non-cognitive constructs are studied in the educational setting and within relevant theoretical models.

**Presentation 1, Title:** Non-cognitive Factors in Academic Achievement: Evidence from PISA and TIMSS

Lee, J., & Stankov, L.

Based on the international datasets of the Programme of International Student Achievement (PISA) by the Organization for Economic Co-operation and Development's (OECD) and the Trends in International Mathematics and Science Study (TIMSS) of the International Association for the Evaluation of Educational



Achievement's (IEA), we summarize empirical findings about the relationship between over 200 noncognitive constructs and students' academic performance in reading, mathematics, and science. The PISA 2003, 2006, 2009, and 2012 and the TIMSS 2003, 2007 and 2011 data were analyzed. The TIMSS variables include: home possession; amount of books at home; parents' highest education level; mother's highest education level; father's highest education level; student's self-expectation of educational level; confidence in mathematics; positive affect to mathematics; valuing mathematics; student engagement in mathematics lessons; weekly time spent on mathematics homework; time spent on extra lessons on mathematics; confidence in science; positive affect to science; valuing science; student engagement in science lessons; weekly time spent on science homework; time spent on extra lessons on science; feeling safe in school; attitude towards school; parental involvement; self-activity and homework of mathematics; mathematics specific learning strategies; traditional learning strategies of mathematics; self-activity and homework of science; traditional learning strategies of science; science-specific learning strategies. Similarly, 95 noncognitive and socio-economic status related variables were examined from the PISA dataset. A series of analyses, including hierarchical linear modeling, indicate that students' self-beliefs (expressed in self-efficacy, self-concept, and anxiety) show the strongest relationship to academic performance at both individual- and country-level. The strength of this relationship is about the same or greater than the relationship between students' family socio-economic background and their academic performance.

**Presentation 2, Title:** Effects of Fatigue On Attention, Cognitive Abilities, Confidence And Decision Making  
Kleitman, S., Jackson, S.A., & Aidman, E.

Two studies were conducted to investigate the effects of fatigue on executive attentional processes, cognitive abilities, metacognitive confidence and decision making behaviour. In Study 1, 70 office workers performed low and moderately engaging tasks in two successive 20-minute simulated drives. In Study 2, 14 Australian Army personnel were subjected to a sleep deprivation schedule for five days. Theory-driven test batteries assessing attention, cognitive abilities, confidence and decision behaviour were administered. Changes were assessed within and between participants. In both studies, performance on tests of attention and simple cognitive functions (e.g., short-term memory) declined in fatigue conditions (low engagement or sleep deprivation). Although participants appeared to adjust their confidence appropriately in these conditions, they became less likely to detect incorrect decisions in the decision-making test. Metacognitive factors might prove to be a productive focus for future investigation of counter-measures to mitigate the impact of fatigue on decision making.

**Presentation 3, Title:** Measurement of the Confidence trait: Psychometric evaluation of on-task and self-report confidence measures.

Halets, Y., & Kleitman, S.

The Confidence trait has been operationalised through on-task confidence judgments captured during test-taking. It is situated in a "no-man's-land" (Stankov, 1997, p. 316) between cognitive ability and personality. However, it is unknown whether self-report measures of confidence also capture this Confidence trait or a related, yet separate Self-report Confidence construct. This investigation used the Individual Differences approach to determine factorial structure of the confidence construct captured by currently available on-task and self-reported measures of confidence. The present study also utilised a theoretical model of self-regulated learning, to investigate the relationship between the two measurement forms of confidence with several relevant variables, such as self-concept, personality, self-esteem and predicted cognitive/academic outcomes. 160 undergraduate psychology students completed self-report questionnaires, cognitive ability tests accompanied by confidence ratings and estimated their accuracy scores and course marks. Four separate confidence-related factors emerged from an exploratory factor analysis: On-Task Confidence, Self-Report General Confidence, Self-Report Academic Confidence and Numerical Ability. This novel finding demonstrates that on-task and self-report confidence measures mostly define separate constructs, with

the exception of overlap in the Numerical Ability factor. The correlations with other constructs revealed that On-Task and different Self-Report confidence factors capture different poles within the Intelligence and Personality taxonomy, with On-Task Confidence overlapping to a larger degree with Intelligence, while Self-Report General and Self-Report Academic Confidence factors sharing more variance with the personality dimensions. The current study is the first to establish the existence of self-report general and academic confidence constructs, which are related to yet separate from on-task confidence. The implications of these findings impact how the Confidence construct is studied in the educational setting and within theoretical models.

**Presentation 4, Title:** Arrogant but Incompetent: An Investigation into the Competence and Cognitive Arrogance Taxonomy

Hui, J., & Kleitman, S.

Decision-making competence is an important skill that allows individuals to produce and initiate effective judgements to reach a desired goal, and requires high ability and confidence in that ability. Incompetent decision-making occurs when an unjustified level of confidence leads to a poor judgement. It is currently unclear as to why some individuals are inaccurate estimators of their own performance. Therefore the individual differences underlying competent and incompetent decision-making need to be examined. Based on an examination of the existing literature, cognitive arrogance was proposed to contribute to this incompetence. The current study addressed this gap by incorporating measures of intelligence, on-task confidence, arrogant-like traits, and rigid thinking dispositions to develop a novel framework to examine the Competence and Cognitive Arrogance taxonomy. It also proposed to examine the Confidence trait within this taxonomy in relation to cognitive decision-making processes. Confirmatory factor analysis was conducted to compare and contrast several hypothetically driven models. The most parsimonious solution was a hierarchical two-factor model, defining Competence and Broad Cognitive Arrogance as higher-order factors. The Confidence trait loaded on both factors while an Intelligence factor loaded only on Competence. Thus, while cognitively arrogant individuals were as confident as competent individuals, this confidence was unjustified by ability and past performance. The predictive validity of the model was also tested, showing that the Broad Cognitive Arrogance factor positively predicted confidence in performance, but not actual performance on a decision-making competence (heuristics and biases) task. In contrast, the Competence factor was a positive predictor for both confidence and performance. The Broad Cognitive Arrogance factor also predicted engagement with arrogant thoughts and behaviours. This implies that individuals high on cognitive arrogance are, in fact, more incompetent decision-makers than competent individuals. These findings have important implications for decision-making behaviour, especially in high-stakes occupations, where incompetent decisions can have serious repercussions.

## (NOT SO) RAPID TALKS

**Presentation 1, Title:** An Exploration of Tinder: Motivations For Use and Characteristics of Users

**Authors:** Tesoriero, J. & Fitness, J.

The recent proliferation of online dating sites has intrigued researchers, prompting studies of their use as a whole. A recent dating application, Tinder has received popularity globally and has yet to be studied independently. Using an evolutionary framework, the present study (N=226) explored motivations for Tinder use and the extent to which these motivations differed according to gender and other individual difference characteristics. These relationships were assessed using several self-report measures in an online survey. T-test analyses revealed that men were more likely than women to report sex-related motivations, men and women were equally likely to report intimacy motivations, while women were more likely than men to report adventure and peer-related motivations for use. Correlational analyses revealed significant associations between individual difference characteristics and motivations for use. The findings

highlight the nuanced nature of evolutionary theorizing and also have important implications for sexual health.

**Presentation 2, Title:** Incomplete and Complete Forgiveness: The role of forgiveness motivations, emotion regulation, relationship commitment and trait compassion

**Authors:** Deck, S., & Fitness J.

Forgiveness is a vital mechanism which allows romantic relationships to overcome conflict and promotes relationship growth. Although there is considerable literature regarding offering as opposed to withholding forgiveness, research lacks a nuanced exploration of forgiveness. This study therefore explored the mechanisms which underlie complete and incomplete forgiveness. Specifically, the role of forgiveness motivations, relationship commitment, trait compassion and emotion regulation ability were explored. The sample comprised one hundred and seventy one respondents (125 female, 46 male) who were in a romantic relationship at the time of participation. Respondents completed an online questionnaire in which they were asked to describe a recent upsetting transgression committed by their romantic partner. They were also presented with measures of relationship commitment, relationship quality, trait compassion, trait forgiveness and emotion regulation ability, as well as scales developed specifically for use in the present study which measured complete forgiveness, incomplete forgiveness and forgiveness motivations (love, control, morality, external factors and partner remorse). Results suggested that incomplete forgiveness may be driven by distress maintenance variables as it demonstrated a positive relationship with the desire to maintain social cohesion and control a partner and was negatively associated with relationship commitment, emotion regulation and partner remorse. Contrastingly, complete forgiveness appeared to be influenced by prosocial relationship variables as it was positively associated with relationship commitment and partner remorse and was negatively associated with the desire to exert control over a partner and maintain external social cohesion. Overall, the present study provides novel evidence regarding incomplete and complete forgiveness and has important implications for clinical practice and future research.

**Presentation 3, Title:** Priming Implicit Theories of Intelligence: Differences in Cognition and State Anxiety

**Authors:** Jones, A. J., Miller, A., & Berry, J.

The effect of experimentally priming implicit theories of intelligence (fixed or malleable) on state anxiety and cognitive performance was examined (select measures from WAIS-IV). It was predicted that a malleable prime would be associated with significantly greater cognitive gain, and a fixed prime would be associated with a significantly greater increase in state anxiety. Participants (N = 84) were split into groups on the basis of their self-implicit theory, followed by measures of state anxiety and cognition. Participants were then randomly assigned to a fixed or malleable prime, followed by second measurements of state anxiety and cognition. The predicted effects emerged for Block Design and Processing Speed, where the malleable prime led to significantly higher cognitive gain. Further, the fixed prime led to a significant increase in state anxiety in those endorsing a malleable self-implicit theory. Overall, the findings expand on our understanding of individual differences within performance and achievement contexts.

**Presentation 4, Title:** Conscientiousness moderates the impact of BDNF gene on recall performance

**Authors:** Lamb, Y. N., McKay, N. S., Lai, J. Y. T., Singh, S. S., Waldie, K. E., & Kirk, I. J.

A single nucleotide polymorphism in the brain-derived neurotrophic factor (BDNF) gene has been associated with hippocampal volume and memory performance. Conscientiousness has been associated with performance on memory tasks, and high conscientiousness appears to confer protection against age-related decline. This study aimed to determine whether trait Conscientiousness moderates the effect of the BDNF val66met polymorphism on recall performance in healthy young adults. A sample of 67 healthy young adults was assessed on Conscientiousness using the NEO PI-R and immediate visual recall using the Family Pictures subscale of the Wechsler Memory Scale – Third Edition (WMS-III). The interaction term between Conscientiousness and BDNF genotype was a significant predictor of recall performance ( $\Delta R^2 = .12$ ;  $F(1,62) = 10.342$ ,  $p = .002$ ). Our results demonstrate the potential for modest genetic disadvantage on

memory tasks to be overcome through a conscientious demeanour. Replication of this moderation using a larger sample size is warranted.

## APPLIED

**Presentation 1, Title:** Conflict Management Styles and Personality in an Online Video Game Context

**Authors:** Leung, V. T. H. & Hitchens, M.

Conflict management has been extensively studied in organisational context, however, less so in an online video game environment. The purpose of this study was to explore conflict management styles (CMS) in the context of the League of Legends game where temporary teams, comprised of unfamiliar players, work under a time constraint to accomplish the outcome of winning a match. The study used qualitative data to explore the nature of conflict management in the video game context and quantitative data to examine whether the personality-CMS association translates to this situation. Results supported some of the correlations found in organisational research, suggesting the generalisability of the personality-CMS relationship. Correlations not previously found in the organisational context were found in the present context. Interviews with participants demonstrated strategies from more than one CMS were used to address different types of conflicts. Future studies should explore CMS in relation to dispositional personality factors.

**Presentation 2, Title:** Individual Differences in the Experiences of Service Providers for Survivors of Human Trafficking

**Authors:** Tan, W., McIlwain, D., Arcuri, A., & Barnier, A.

Human trafficking is equivalent to slavery. At the core of trafficking is the exploitation of an individual through force, deception or coercion to harness their productive potential. While the consequences of trafficking for survivors have been documented, no theoretical model that addresses the impact of working with trafficking survivors on service providers has been created. / / Semi-structured interviews were conducted with 11 service providers in Australia and Singapore. Using Grounded Theory (Strauss & Corbin, 1998) our interim model suggests that, at a personality level, service providers highly espoused values of justice and equality. They were high in agency and believed in their ability to connect intentionality and action (Bandura, 2001). However, prolonged service provision entailed confronting numerous organizational and systemic challenges. There were marked individual differences in how service providers responded to these challenges, which impacted the sustainability of their work and their likelihood of vicarious traumatization (Pearlman & Saakvitne, 1995).

**Presentation 3, Title:** Procrastination: Appraisal and the Individual Differences that Influence Delay

**Authors:** Chatillier, G., & Serle, B.

The study aimed to investigate how a person's stress appraisal (i.e., challenge, hindrance, or threat) affected his or her procrastination behaviour, and whether individual differences affected this relationship. The study looked at 100 employees in the U.S.A. at two different time points and investigated how employees appraised the stressors of role ambiguity and role conflict, and job complexity. Preliminary results showed that negative affectivity, avoidance goal orientation, and prove goal orientation moderated the relationship between stress appraisal and procrastination behaviour for role ambiguity and conflict, and job complexity, but trait procrastination was only a significant moderator for role ambiguity and conflict.

**Presentation 4, Title:** Individual Differences in Lie Detection: Examination into the Role of Emotional Intelligence and Auditory Processing

**Authors:** Law, M. K. H., & Kleitman, S.



The current study examined possible individual differences in lie detection which may provide key information for improving accuracy. Several gaps within research are addressed by examining the role of auditory processing, emotional intelligence (EI) and psychopathy recognition towards lie detection. 90 university students completed previously validated lie detection stimuli in German as well as ability-based EI measures, and measures of auditory processing, psychopathy recognition, intelligence and personality. Stimuli for the lie detection task were presented in three modalities: video and audio, audio only and video only, and in two contexts: emotional and non-emotional. Results suggest that individual differences in auditory processing and EI predict lie detection performance only when both auditory and visual information is provided. Auditory processing also appears to positively predict lie detection accuracy, such that higher auditory processing is associated with better lie detection. Further examination into auditory processing should be made within lie detection research.

## PERSONALITY PROCESSES

*Personality Processes: Motivational, Interpersonal, and Affective Mechanisms.*

### **Symposium Abstract:**

Personality traits describe long-term regularities in behaviour and experience, and personality theories postulate basic mechanisms underlying these regularities. In this symposium, we will present six studies from Melbourne's *Personality Processes Lab* examining motivational, interpersonal, and affective processes that may underlie personality traits. First, Smillie will examine the relation between Extraversion and a neural (EEG) index of incentive motivation. Fong will then present a complementary study, concerning the relation between Extraversion and competitive reward pursuit. Next, Sun will consider aspects of social experience that may explain why people enjoy acting Extraverted. Zhao will then examine whether the link between Agreeableness and some forms of prosocial behaviour is underpinned by adherence to social norms. Shifting the focus to emotion, Geaney will discuss associations among Openness/Intellect, empathy, and emotional responses to music. Barford will then present a related study investigating the relation between Openness/Intellect and susceptibility to mixed emotions.

**Presentation 1, Title:** Agentic Extraversion is a Unique Predictor of Reward-Prediction-Error Signals.

**Authors:** Smillie, L.D., Hughes, D.M., Cooper, A.J., Wacker, J., & Pickering, A.D.

Agentic extraversion (i.e., assertiveness, boldness) has been theorised to reflect dopamine-mediated reward-processing, but empirical support for this theory is mixed (Wacker & Smillie, 2014). Potential explanations for this patchy evidence base include woefully underpowered studies and a tendency for different researchers to favour different measures of extraversion. In light of these concerns, we attempted a high-powered replication of the finding that extraversion predicts a neural (EEG) index of reward-prediction-error (i.e., outcomes that are more or less rewarding than expected). Participants ( $N = 75$ ) completed a comprehensive personality battery prior to an associative learning task with continuous EEG recording. As expected, multiple measures of extraversion predicted larger reward-prediction-error signals. Furthermore, this association was unique to measures of agentic extraversion. Openness/Intellect was the only other Big Five trait to predict reward-prediction-error, but did not do so independently of extraversion. These findings provide clear support for the reward-processing theory of extraversion.

**Presentation 2, Title:** Extraversion and the Desire to Win: Components of Reward-Processing as Predictors of Competitive Bidding in Auction Games

**Authors:** Fong, M.S., Zhao, K., & Smillie, L.D.

Despite the ubiquity of competition, little is known about the underlying basis for individual differences in competitiveness. Competition can be understood as an example of reward-seeking, which also plays a key

role in the different components of extraverted personality. These consist of the desire (Assertiveness), enjoyment (Enthusiasm), and reckless pursuit of rewards (Sensation-Seeking). The present study examined whether these three components of extraversion predict actual competitive behaviours in two auction games (a standard Winner-Pay auction, and an All-Pay auction—where all bidders must pay their maximum bid even if they do not win). Participants ( $N = 304$ ) competed in online, simulated versions of both auction games. Results indicated that Assertiveness predicted escalation in bidding in both auctions; Enthusiasm was unrelated to bidding behaviour; and Sensation-Seeking had a marginally stronger influence on bidding in the All-Pay auction, relative to the Winner-Pay auction. Implications and future directions will be discussed.

**Presentation 3, Title:** Extraverted Behaviours, Social Experiences, and Positive Affect in Everyday Life

**Authors:** Sun, J., Richardson, B., & Smillie, L.D.

The robust relation between trait extraversion and positive affect also applies to extraverted moments: people feel happier when they act more extraverted, regardless of their dispositional level of extraversion. Recent research suggests that aspects of social experience—social contribution and social power—mediate the relation between extraverted behaviours and positive affect (Smillie, Wilt, Kabbani, Garratt, & Revelle, 2015; Stevenson, 2014). The current study tested whether these mediating effects generalise to everyday life, and investigated the roles of two novel mediators—social connectedness and hope. Using an experience sampling paradigm, participants ( $N = 62$ ) reported their naturally occurring levels of extraverted behaviours, positive affect, and potential mediators up to 42 times across seven days. Contribution, power, connectedness, and hope each significantly mediated the relation between extraverted behaviours and positive affect states. These findings refine and extend the social experience hypothesis of enacted extraversion, and have implications for increasing subjective wellbeing.

**Presentation 4, Title:** Aspects of Agreeableness and Norms of Equity and Need: A Person x Situation Account of Prosocial Behaviour in Economic Games

**Authors:** Zhao, K., Ferguson, E., & Smillie, L.D.

Research at the interface of personality and economics has shown that Big Five agreeableness is a major predictor of prosocial allocations of wealth in the dictator game. We recently showed, across four studies, that this relationship is primarily driven by individual differences in good manners and adherence to social norms (i.e., politeness), rather than empathy and emotional concern for others (i.e., compassion). In the present study ( $N = 457$ ), we manipulated the salience of equity and need norms using different vignettes describing a production phase prior to the dictator game. We found that, in contrast to compassion, the effects of politeness were conditional on the normative context and depended on equity norms shaped by relative contributions during the production phase. These findings point to a person x situation account of prosocial behaviour in economic games, in which relevant interpersonal traits interact with salient contextual norms to determine allocations of wealth.

**Presentation 5, Title:** Openness, Interpersonal Affiliation, and the Rewards of Sad Music

**Authors:** Geaney, J.T., Barford, K.A., Wilson, S.J., & Smillie, L.D.

Music that expresses sadness or grief can at once be aesthetically rewarding and enjoyed, and yet evoke feelings of sadness or even move one to tears. During times of emotional distress, people are especially drawn to music that expresses congruent feelings such as sadness, and may derive pleasure or comfort from the experience. This apparent paradox suggests that music may be a source of both aesthetic and affiliative reward. Indeed, prior research indicates that trait sensitivities to these different sources of reward (e.g., openness and empathy) predict enjoyment of sadness-evoking music, however, the mechanisms underlying these associations are not well understood. In a recent online survey we examined

the processes that may underlie the rewards of sadness-evoking music, focusing on traits related to openness and interpersonal affiliation. Specifically, we included a range of measures of affective and cognitive empathy, emotional complexity and experience, big-five personality dimensions, and emotional responsiveness to music. Preliminary findings and potential mechanisms will be discussed.

**Presentation 6, Title:** Do Basic Traits Predict Susceptibility to Mixed Emotions?

**Authors:** Barford, K.A., Larsen, J.T., & Smillie, L.D.

In this study, we aimed to refine the description and explanation of mixed emotions from an individual differences perspective. Associations between mixed emotions and three major trait domains (openness/intellect, neuroticism, and extraversion) were examined. We hypothesised that openness/intellect would predict susceptibility to mixed emotions based on the trait's commonalities with mixed emotion's known correlates and on the tendency of individuals high on openness/intellect to explore uncertain stimuli. The interaction between the traits associated with susceptibility to positive (extraversion) and negative (neuroticism) emotion was investigated as an alternate predictor. Participants ( $N = 98$ ) watched bittersweet and control film clips. The effect of the bittersweet clip was replicated—significantly more mixed emotions were experienced during the bittersweet than the control clip. We then examined whether the hypothesised traits would moderate this effect. None of the hypothesised traits significantly predicted susceptibility to mixed emotions. Potential explanations and future directions are discussed.

## PSYCHOMETRICS

**Presentation 1, Title:** Cross-national equivalence between personality scales: a 15 nation comparison

**Authors:** Munro, D., Houlcroft, L., & Bore, M. R.

Equivalence between tests has long been an issue for cross-cultural psychology. Van der Fijver, Leung, Poortinga and others in the 1990s introduced sophisticated techniques for ensuring equivalence before tests were used for cross-cultural comparisons. In this study, degree of equivalence was assessed as the independent variable, using a variety of item level characteristics of the PQA non-cognitive tests applied in 14 countries spanning Europe to East Asia (including Australia). This revealed that, despite clear multi-factorial differences between nations, no clear culturally based clusters were evident. Discussion will be in terms of the meaning of equivalence.

**Presentation 2, Title:** The emerging personality structure: Gender differences in a self-report measure of the Big Five for Children

**Authors:** Bore, M., Laurens, K., Raudino, A., Green, M., Tzoumakis, S., Harris, F., & Carr, V.

Greater understanding of the development of personality in childhood could be enhanced through the use of a self-report short-form measure of the Big Five in children. We adapted 25 items from the Big Five Questionnaire for Children and administered them to 11 and 12 year old student participants ( $n = 642$ ) who completed a battery of questionnaire measures during class time on computer. Differences in trait coherence and differentiation were found for females and males. A clear five component structure was found for female children. For male children, Intellect/Openness and Neuroticism components were clearly formed, however, Agreeableness, Conscientiousness and, to a lesser extent, Extraversion were not adequately differentiated as separate components. Correlations between component scores and a number of marker tests provided evidence of construct validity. The findings will be discussed in terms of the adult Big Five trait structure emerging earlier in female children than in male children.

**Presentation 3, Title:** The Psychometric Properties of Cognitive Confidence: Structure across Cultures in Working Adult Samples

**Authors:** Douglas, H. E., Rose, D., & McCormack, L.

Confidence reflects a belief or faith in oneself, and is measured by embedding ratings within ability tests. The research declaring cross-cultural invariance has examined Confidence using exploratory factor analysis. This is limited to exploring the overall structure of confidence. The aim of this study was to examine the measurement invariance of Confidence across two cultural samples, using multi-group confirmatory factor analysis (MCGFA). Participants were 1709 adults from Australia (N=833) and Thailand (N=876) who completed the abilities MAS-2 cognitive ability tests online. Separate confirmatory factor analyses in the cultural samples indicated a reasonable fit of a model with two latent factors representing accuracy and confidence respectively. Results of MCGFA did not support the configural and metric invariance of confidence across cultures. Evidence for the invariance of a two-factor structure was not found across the two national samples. Implications and future research directions in the domain of selection and assessment are discussed.

**Presentation 4, Title:** Control Autonomy Self-Realization Pleasure-12 (CASP-12): Frequentist and Bayesian Confirmatory Factor Analysis, validity, and reliability

**Authors:** Gomez, R.

The Control Autonomy Self-Realization Pleasure-12 (CASP-12) with scales for control, autonomy, self-realization and pleasure, is a self-rating questionnaire for measuring quality-of-life (QOL) in older adults. The study used standard (frequentist) confirmatory factor analysis (CFA) and Bayesian confirmatory factor analysis (BCFA) to evaluate second-order factor models with three and four primary factors. Results obtained from the CFA and BCFA indicated mixed and good fit respectively for the second-order factor model with four primary factors. For the BCFA version of this model, the general and domain factors were differentially associated with distress and social support. For the CFA version of this model, all factors showed acceptable internal consistency reliabilities in terms of omega coefficient. These findings support the QOL theoretical model underpinning the CASP-12.

**Presentation 5, Title:** Gullibility: Devising a Self-report Measure

**Authors:** Teunisse, A., Case, T., & Sweller, N.

Two empirical studies describe the development of self-report measure of gullibility. In Study 1, a pool of 66 items were generated and administered in an anonymous online survey. Demographic items and a measure of social desirability (Crowne & Marlowe, 1960) were also administered. An exploratory factor analysis produced a 35-item scale containing four factors labelled Persuadable, Trust, Unassertive, and Insensitive to Cues of Untrustworthiness. In Study 2, a confirmatory factor analysis was conducted using a new sample. Respondents completed the Gullibility Scale as well as measures of trust (Rotter, 1967), agreeableness (IPIP, 2015), Machiavellianism (Dahling, Whitaker, & Levy, 2008), and social intelligence (Grieve & Mahar, 2013). The confirmatory factor analysis found that the Trust Factor did not fit the model. Removing it reduced the scale to a reliable 24-item scale, including three factors. The utility of this new self-report measure of gullibility for research and applied contexts is discussed.

**Presentation 6, Title:** The Importance of Comprehensive Normative Data: An example from neuropsychological assessment

**Authors:** Wilson, N.-A.

Sound psychometric assessment relies on comprehensive normative data representing the true range of the variable in question. A popular measure of executive function, the clinical interpretation of performance on the Rey Complex Figure Test (RCFT) is partly based on how an individual approaches the task. A piecemeal organisational strategy involving the fragmentation of the base rectangle, diagonals and bisectors is often considered indicative of neurological impairment. However, recent research by Wilson and Batchelor (2015) demonstrated that healthy individuals exhibit a wide range of RCFT organisational strategies with the variation partly explained by individual differences in the processing of visual stimuli ( $b = 0.63$ ,  $p = .006$ ). A subset of these results and some comparative clinical examples will be presented to



illustrate the importance of comprehensive normative data in differentiating clinical impairment from pre-existing individual differences when interpreting any neuropsychological assessment.

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FRIDAY ENDS

SATURDAY BEGINS

## DARK SIDE

**Presentation 1, Title:** Decision Heuristics in the Dark Triad: Can Value Functions Help Explain “Dark” Personalities?

**Authors:** Middleton, J. P., & Jonason, P. K.

Modern personality research suffers from numerous conceptual problems. Namely, attempts to provide explanatory accounts of the mechanisms that underlie personality traits have relied upon misunderstandings of what traits are. Thus, this study attempts to provide an exploratory analysis of how the decision making heuristics identified by Prospect Theory might differ across individuals, and produce the increased risk-taking behaviour linked with the Dark Triad. Using hypothetical models, comparisons were made between high and low levels of each Dark Triad trait, as well as other risk-taking traits previously thought to underlie the Dark Triad (i.e., Sensation-seeking and Impulsivity). The hypothetical functions of the Dark Triad traits showed important 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.

**Presentation 2, Title:** Narcissistic demand, Machiavellian supply: the Interplay of Dark Triad traits to increase success as a Twitter Troll

**Authors:** Thomlinson, S., & Jonson, P. K.

Using Linguistic Inquiry and Word Count, we explored how the Dark Triad traits (narcissism, Machiavellianism, & psychopathy) could be detected in 14,400 Twitter accounts and attempted to show that there are two different types of trolls. We replicated the psychopathic troll but we also showed the presence of a troll who is more subtle. This latter type of troll is associated with narcissistic and Machiavellian traits. These two kinds of trolls could be distinguished by success, found in Social Media Presence. Less successful trolls were more linguistically consistent with psychopathy. Whereas trolls with the most success were linguistically able to elude detection while maintaining success; indicating an interplay of narcissistic and Machiavellian traits. We concluded that it is not one specific personality trait on the Dark Triad that reflects trolling behaviour, but it is the interplay of personality traits that motivates and drives success of different types of Twitter trolls.

**Presentation 3, Title:** Cumulative Risk Effects on Aggression

**Authors:** Tarabay, C., & Warburton, W. A.

Previous research links aggression with a range of internal and external risk factors. However, most of the literature has examined these factors in isolation, and there is little research examining their cumulative effects. This current study addresses this gap by examining the effects of multiple risk factors for aggression, and proposes that they may be theoretically conceptualised along an axis ranging from internal to external. Participants completed questionnaires measuring a range of risk factors for aggression

including (but not limited to); psychopathy, narcissism, Machiavellianism, and violent media exposure. Results showed that internal callous-unemotional trait risk factors were the most robust predictors, and tended to cluster in the individual. Results also revealed that external risk factors were the least predictive, but may still play an important causal role. Theoretical implications in terms of understanding cumulative risk effects along an internal-external axis will be discussed.

**Presentation 4, Title:** Individual differences in how people understand social status

**Authors:** Alba, B. & Boag, S.

Status hierarchies are a widespread feature of human social groups. Psychological research on status and status hierarchies is conducted in both personality and social psychology, however the term “status” has often not been clearly defined within these fields. Given that there are important individual differences relating to status, a clear definition of the term is needed. In order to investigate the understanding of the term among laypeople, we asked a sample of participants (n = 86) a set of ten open-ended questions on status. A qualitative analysis of responses revealed that the term “status” had multiple meanings in this sample, including prestige, power/influence, material wealth, social benefits, and more. While these results may be limited to a particular culture, they suggest that “status” is broad in meaning, with a large variety of conceptualisations of the term. Implications for current research on status in personality psychology will be discussed.

## STATISTICS

**Presentation 1, Title:** A psychometric review of self-report boredom measures

**Authors:** Oxtoby, J., King, R., Sheridan, J., & Obst, P

Over the last 30 years the issue of boredom has received increasing interest from the academic community. This has partly been influenced by the range of negative behaviours and health issues associated with boredom proneness, including depression, drug use, and impaired workplace performance. I'll discuss the results of a psychometric review of existing self-report scales of trait and state boredom. The review focuses on data collected from 104 research papers, looking at convergent validity, test-retest reliability, and internal consistency. Trends in the creation and use of self-report measures of boredom will be discussed, including the increasing tendency to assess boredom as a multidimensional concept, and the importance of state boredom measurement. I'll also briefly provide recommendations for future research using boredom scales. These recommendations may also be relevant to other areas of personality and individual differences. In particular, the concept of 'insufficient effort responding' will be detailed.

**Presentation 2, Title:** Poor replicability in personality research: are we really so surprised?

**Authors:** Boag, S.

A recent review of replication studies indicates that findings reported in personality journals may be far less replicable compared to those found in other areas of psychology. While there are several likely factors contributing to this, this paper discusses the possibility that an over-reliance on self-report methodologies may be a major contributor to poor replicability. Two considerations supporting this conclusion are discussed. First, self-report data are typically nominal or ordinal in nature, and while commonly treated as interval scale data, they lack the measurement precision and stability necessary for confident replication. Second, test-retest reliability for personality scales is typically much lower than can be considered indicative of stable measurement. The lack of a basic 'unit' of personality and the role of personality theory to address this are discussed.

**Presentation 3, Title:** A philosophical foundation for Trait Theory: Armstrong's Theory of Concrete Universals

**Authors:** Fielden, C. & MacCann, C.

Over the decades, many accounts that describe traits as the basis for personality have been offered. Such accounts have generally been empirically derived, with a philosophical basis for Trait Theory lacking. This is

unsurprising, given that traits are properties – the existence of which has been debated by philosophers for millennia. Even amongst those that have accepted the existence of properties, a scientifically testable definition of properties has not been produced. One exception is the account of properties offered by Armstrong's (1978) Theory of Concrete Universals (TCU). In this account, properties are described as instantiated, and possibly complex networks that facilitate input-output relations. Being grounded in Scientific Realism, TCU suggests models in which both the form and function of properties are clearly specified. As such, TCU offers a philosophical foundation for the development, and assessment of trait models that do not rely on inference, but that can be directly tested.

**Presentation 4, Title:** Tracing the quiet revolution: statistical modelling in individual differences research

**Authors:** Nowland, T. M.

Early psychology research had foundations in mathematical modelling, which utilises the logic of proof. The computer revolution of the twentieth century saw shifts in research practices with an emphasis that remains influential to this day, on statistical modelling and inductive inference. Today it is possible to observe blurring between psychological and statistical modelling processes in ever-increasing adoption of 'data-driven' methods that have little reference to the logic of mathematical modelling. This paper takes a historical materialist approach in examining the path to present-day modelling techniques, with specific attention to the development of the latent variable model, and emergence of dynamic network modelling. Conceptual analysis is used to highlight a series of considerations in modelling relevant to individual differences psychology research. These outcomes combined with critical psychology perspectives suggest a pluralist approach to modelling best supports the likelihood of coherent outcomes that correspond well with the phenomena, for individual differences research.

## INTELLIGENCE

**Presentation 1, Title:** Deconstructing intellectual curiosity

**Authors:** Powell, C., Nettelbeck, T., & Burns, N. R.

Scales of Need for Cognition (NFC), Typical Intellectual Engagement (TIE), and Epistemic Curiosity (EC) measure intellectual curiosity (IC). These scales correlate strongly and have been factor-analysed individually but have not been jointly factor analysed. Here N = 396 (143 males) undergraduates completed measures of NFC, TIE, and EC. Six factors, labeled Intellectual Avoidance, Deprivation, Problem Solving, Abstract Thinking, Reading, and Wide Interest, were identified. TIE is the broadest scale, measuring all factors except Deprivation; NFC measures Intellectual Avoidance and Problem Solving, plus Abstract Thinking and Deprivation to a lesser degree; and EC largely measures Deprivation. Moreover, Reading may not fit in the IC domain; higher-order factor analysis indicated that, whereas items measuring Reading loaded more strongly to their first-order factor, items measuring the other factors strongly loaded on a general factor of IC. These results are significant for understanding the contents of these scales, and for future scale development.

**Presentation 2, Title:** Gradients of Non-cognitive Factors in Student Achievement

**Authors:** Lee, J., & Stankov, L.

Based on the international datasets of the Programme of International Student Achievement (PISA) by the Organization for Economic Co-operation and Development's (OECD) and the Trends in International Mathematics and Science Study (TIMSS) of the International Association for the Evaluation of Educational Achievement's (IEA), this chapter will summarize empirical findings about the relationship between over 200 non-cognitive constructs and students' academic performance in reading, mathematics, and science. The PISA 2003, 2006, 2009, and 2012 and the TIMSS 2003, 2007 and 2011 data are analyzed. The TIMSS variables include: home possession; amount of books at home; parents' highest education level; mother's highest education level; father's highest education level; student's self-expectation of educational level; confidence in mathematics; positive affect to mathematics; valuing mathematics; student engagement in mathematics lessons; weekly time spent on mathematics homework; time spent on extra lessons on

mathematics; confidence in science; positive affect to science; valuing science; student engagement in science lessons; weekly time spent on science homework; time spent on extra lessons on science; feeling safe in school; attitude towards school; parental involvement; self-activity and homework of mathematics; mathematics-specific learning strategies; traditional learning strategies of mathematics; self-activity and homework of science; traditional learning strategies of science; science-specific learning strategies. Similarly, 95 non-cognitive and socio-economic status related variables were examined from the PISA dataset. A series of analyses, including hierarchical linear modeling, indicate that students' self-beliefs (expressed in self-efficacy, self-concept, and anxiety) show the strongest relationship to academic performance at both individual- and country-level. The strength of this relationship is about the same or greater than the relationship between students' family socio-economic background and their academic performance.

**Presentation 3, Title:** Raven's Progressive Matrices: Fluid ability, visuospatial ability, and sex differences

**Authors:** Waschl, N.

The Raven's Progressive Matrices (RPM) tests are generally considered a measure of inductive reasoning. However, there is some evidence to suggest that performance may also involve visuospatial ability, and that this could have implications regarding sex differences in scores. In order to examine the relationship between RPM performance, visuospatial ability and fluid ability, data were obtained from 353 participants who completed a short form of the Advanced RPM and 287 participants who completed the Standard RPM. Additional measures of visuospatial ability and fluid ability were also obtained from each sample. Structural equation modelling was used to examine the relationships between visuospatial and fluid ability, and performance on the RPM. Visuospatial ability was found to significantly contribute to performance on both versions of the RPM, over and above fluid ability, supporting the contention that visuospatial ability is involved in RPM performance. Sex differences in these relationships will also be discussed.

**Presentation 4, Title:** Psychological Dimensions of Academic Interest

**Authors:** Lee, J.

What does it mean for an undergraduate university student to be academically oriented? Academic interest has been extensively studied in the context of learning and academic achievement of school-aged children and adolescents, but rigorous measurement involving undergraduate students is lacking. In the current study, we investigated psychological dimensions of academic interest among undergraduate students (N= 325) enrolled in a research-intensive university in Australia. We constructed and administered an academic interest scale measure that reflected two broad dimensions (affective and cognitive) along with potential correlates related to academic performance, academic aspiration, life satisfaction, career planning, future orientation, attitudes towards leisure, personality, and value. Student demographics (gender, age, year-level, undergraduate major) were collected as well as parents' education and family income level as a proxy measure of home environment. Results revealed academic interest of undergraduate students through four relevant dimensions: passion for learning, confidence in the future, career aspiration, and self-expression. Gender, undergraduate major, parents' education, and family income were not associated with significant differences in the four dimension scores. Each academic interest dimension, however, had a distinctive set of correlates, suggesting that students with different personalities and different views on life satisfaction and value are likely to appreciate, develop, and respond to different aspects of academic interest. We conclude with proposed implications and future research directions.

**Presentation 5, Title:** An investigation into the relationships between sex, gender identity, emotional intelligence and stress: Emotional skills protect feminine women from stress but not feminine men.

**Authors:** O'Connor, P.

Research has demonstrated that biological sex is associated with the experience of stress, such that females generally experience higher levels of stress than males across a range of contexts. However little research has sought to examine why sex is related to stress, or what factors impact the relationship



between these constructs. This study sought to explore, 1) whether the relationship between sex and stress could be explained by known trait correlates of sex, and 2) whether trait-based predictors of stress and coping were different for men and women. Participants were 206 white-collar workers who completed a range of questionnaires measuring agency, communion, trait emotional intelligence (trait EI) and experiential stress. Results revealed that, as predicted, females experienced greater levels of stress than males, and that this relationship was completely explained by agency and trait EI. More interestingly, results also revealed the presence of a moderated-mediated effect, demonstrating demonstrated that women high in communion (femininity) and emotional competencies tended to be protected from high levels of stress, whereas men with the same sets of competencies were actually more prone to stress. This moderated-mediated effect is the focus of the discussion, which attempts to explain why men high in communion experience fewer benefits from emotional skills compared to their female counterparts.

## **BIG FIVE**

**Presentation 1, Title:** Boredom and the OCEAN model for men and women

**Authors:** Oxtoby, J., King, R., Sheridan, J., & Obst, P.

Boredom and boredom proneness have been linked to a variety of negative emotions and behaviours, such as anxiety and aggression. Previous research has suggested that people with different OCEAN personality profiles might be differentially prone to boredom. I'll discuss the results of a study that assessed the influence of the OCEAN traits on boredom among 422 students. The data suggested that neuroticism and conscientiousness are the traits most associated with boredom. The results also showed several differences between men and women. For example, openness was a significant and modest predictor of boredom proneness for females only. Conversely, extraversion was a significant predictor of state boredom in males, but not females. I'll consider the potential ramifications of these findings, with particular emphasis on potential counselling and employment scenarios.

**Presentation 2, Title:** Extraversion, Pro-social Peers, and Risky Substance Use: Testing social-personality influences on adolescent risk development

**Authors:** McCabe, K. O., Modecki, K. L., & Barber, B. L.

Adolescence is a time of major developmental changes, both physiological and psychological. Dual-systems theories suggest that adolescents' mature biologically-based reward-system runs full-tilt. As such, adolescents seek socially and emotionally rewarding experiences, which can include substance use and peer approval. These changes in the dopaminergic reward system may relate to similar changes in personality traits, particularly extraversion. Our analyses explore whether extraversion develops in tandem with excessive drinking across high school, and whether pro-social peers influence this development. Analyses used data from the Youth Activity Participation Survey, a large-scale annual survey of adolescents in 39 schools across Western Australia (n = 996). The data used were from a 4-year period (Year 9 to Year 12). Findings show that early levels of extraversion predicted accelerated increases in excessive drinking over time. Early pro-social peers independently predicted slower increases in excessive drinking over time.

**Presentation 3, Title:** Popular descriptors of introversion: a qualitative study

**Authors:** Gerlach, N.

The conceptualisation of introversion varies to some degree across personality theories and measures. There seems to be even greater inconsistencies between the popular descriptions of introversion and those used most commonly in research. A key role of research is to expand knowledge of human society and culture. Given the relationship between popular understandings of personality and societal norms and expectations, it is important to investigate what these understandings are. The aim of this study was to explore how lay people conceptualise introversion. A sample of 87 participants was recruited through online social networking sites and email snowballing. Participants were asked in an online survey how they would describe introverts and to identify good and not so good aspects of introverts. Responses were

analysed and recurring themes identified. These themes related to Social Skills, Quietness, Reserve, Self Sufficiency, Energy Loss/Gain and Reflectiveness. These findings may inform future research and psychoeducation.

**Presentation 4, Title:** Are The Big Five personality factors merely projections of raters' implicit theories of personality?

**Authors:** Cole, A. B.

The prototypical Big Five Personality Factor model, derived from trait-ratings of real people by those who knew them, was revealed to the public by Warren T. Norman in 1963. It consisted of 20 bipolar traits reduced to 5 stable replicable simple structure orthogonal factors. For half a century a potentially mortal allegation has dogged Big Five personality factor models, namely, that these personality factors derive not from raters' veridical perceptions of the external world but are merely or mainly artefacts derived from the minds of raters -- probably projections onto the external world of raters' implicit conceptions of the correlational organisation of personality traits. This paper presents results of attempts to reproduce purely from the minds of raters without the raters rating any actual people Norman's five factor model of personality traits using as the instrument Norman's (1963) 20 bipolar trait-rating scales.

**Presentation 5, Title:** Personality profiles of Asian personal fashion assistants (consultants): Relationships with performance

**Authors:** Hicks, R., & Bowden, J.

We report in this paper how the Apollo Profile, a personality and preferences online questionnaire, has been used in a major international organisation in fashion sales to compare the more successful from the less successful employees across Asia. The Apollo Profile™ provides measures on up to 34 different scales, including the Big Five; and over time, following research studies, it has predicted 'excellent performers' in different positions in companies around the world. This current paper reports several studies that examined in total over 200 cross-Asia Asian 'personal product representatives' or sales representatives/fashion consultants/ and customer relations individuals. Competent and excellent representatives were able to be differentiated on the basis of the personal preferences assessed by the Apollo Profile, and the profile of successful performers provides a base for further recruitment and for further research. The potential value of personality and preference measures in identifying attributes and competencies related to successful performance is highlighted in the results.